Dissertations   Theses and Dissertations

2014

New Teacher Induction Programs: A Case Study of an Exemplary School District and How It Prepares Its New Teachers for the Use of Instructional Technology in the Classroom

David Brian Sherman
Loyola University Chicago

Follow this and additional works at: https://ecommons.luc.edu/luc_diss

Part of the Educational Leadership Commons

LOYOLA UNIVERSITY CHICAGO

NEW TEACHER INDUCTION PROGRAMS:

A CASE STUDY OF AN EXEMPLARY SCHOOL DISTRICT, AND HOW IT

PREPARES ITS NEW TEACHERS FOR THE USE OF INSTRUCTIONAL

TECHNOLOGY IN THE CLASSROOM

A DISSERTATION SUBMITTED TO

THE FACULTY OF THE GRADUATE SCHOOL OF EDUCATION

IN CANDIDACY FOR THE DEGREE OF

DOCTOR OF EDUCATION

PROGRAM IN ADMINISTRATION AND SUPERVISION

BY

DAVID B. SHERMAN

CHICAGO, ILLINOIS

MAY 2014

ACKNOWLEDGEMENTS

While only one name is written on the cover page of a doctoral dissertation, there is no possible way one person could complete such a demanding and challenging undertaking without the guidance, assistance, support, and encouragement of those around him. For me, there are many people who have provided such benefaction.

First, to my parents, Jack and Lonnie Sherman, I wish to thank you for instilling in me a love for the field of education, for modeling the importance of a solid, highly principled work ethic, and for demonstrating confidence that I could persevere through this process. To my amazing wife, Sally, who is my very best friend in the whole world, and who has been my inspiration to be the best student I could possibly be. I will forever be grateful for your understanding and patience during four long years of graduate school. Finally, to my daughters, Marni and Gillian, whom I hope will follow their own educational paths as far as possible. Thank you for your understanding of all the nights and weekends I was sitting in class or at my computer instead of being home with you.

I would like to express my deepest gratitude to Dr. Marla Israel, my dissertation chair, who demonstrated amazing patience, extensive knowledge, and insightful guidance throughout the entire dissertation-writing process. I will forever be indebted to Dr. Israel for inspiring me to always dig deeper, think harder, and write more clearly.

In addition, I would like to express my gratitude to my dissertation committee members, Dr. Janis Fine of Loyola University Chicago for asking the tough questions and providing me with the motivation to keep me moving forward and Dr. Eric Twadell of Adlai Stevenson High School for providing encouragement and insights that helped me carve a path toward inspired learning.

Finally, I would like to thank the dozens of administrators and Generation Y teachers who participated in this study, the Deerfield Public Schools for supporting me throughout this endeavor, and my friends in the Loyola-Deerfield Cohort who kept me laughing, learning, and loving the work I do.

Accomplishing this dissertation is something I could not have imagined while growing up as the languid, disorganized, and silly student that I was. Without all of the aforementioned people, I would not have been able to live this dream.

To Sally, my biggest supporter, my best friend,

and the most intuitive person I've ever met.

LYT!

TABLE OF CONTENTS

APPENDIX

LIST OF TABLES

LIST OF FIGURES

Figure

ABSTRACT

This research study examined Generation Y new teachers, the process of new teacher induction, and the most effective methods for providing professional development in instructional technology for Generation Y teachers.

The main research questions for this paper were as follows:

1. What constitutes a high quality new teacher induction program for Generation Y teachers in the area of instructional technology?

2. What recommendations should be made for school districts in order for them to properly train their new Generation Y teachers in the best uses of instructional technology?

3. What are the implications for school leaders?

This was a qualitative case study of one school district considered exemplary in the use of technology. Four areas of data collection were utilized during this study including semi-structured interviews of administrators, an online survey of Generation Y new teachers, a collection of artifacts related to new teacher induction, and observations of new teacher and mentor meetings.

Participation in this study was voluntary and included the completion of a "Letter of Cooperation" by all administrators and teachers. Data collected during the study were analyzed through the conceptual frameworks of the Nebraska Rubric for Essential Technology Conditions (RETC) and the *Illinois*

Standards of Quality and Effectiveness for Beginning Teacher Induction Programs
(2008).

This study concluded that the school district under review has developed a new teacher induction program that meets all but one of the Illinois standards. In addition, this study concluded that that the Generation Y teachers in this school district do not feel as if they have received enough or the proper types of training in the use of technology in their classrooms upon the start of their teaching careers. This research study further teased out the need for instructional technology training based on the specific characteristics of Generation Y new teachers.

CHAPTER I

INTRODUCTION

Technology in Schools

The need for and use of computers and the Internet in schools has risen

dramatically over the last 15 years. In a survey of technology use in public

schools in 2009, the National Center for Education Statistics (Gray, Thomas,

Lewis & Tice, 2010) reported that 97% of teachers had one or more computers

located in the classroom every day, while 54% could bring computers into the

classroom.   Internet access was available for 93% of the computers located in the

classroom every day and for 96% of the computers that could be brought into the

classroom. The ratio of students to computers in the classroom every day was 5.3

to 1 (Gray, Thomas, Lewis, & Tice, 2010).

The United States Department of Education's *2010 Blueprint for Reform*

identified technology as a component of a complete education and emphasized

the need to invest in "evidence-based instructional models and supports"

(Duncan & Martin, 2010, p. 4). Inan and Lowther (2010) reported that in an effort

to improve student learning and better prepare them for the future workforce,

almost every school has Internet access and about one computer per every four

students. According to the Digest of Educational Statistics (2009), the percentage

of instructional rooms with internet access increased from 51% in 1998 to 94% in

2005 (Snyder & Dillow, 2010).   Over the past decade, substantial resources have

gone toward equipping K-12 schools with the technology necessary to ensure

success for *all* students in the information age. For instance, the ratio of students

to computers decreased from 12:1 in 1999 to 4.4:1 in 2003 in the United States

(Parsad, Jones & Greene, 2005).

Across the United States, school districts are spending billions of dollars

annually to purchase the most recent, cutting edge computer hardware,

networking, and site licenses for students and staff. The Executive Office of the

President's Council of Economic Advisors (2011) reported that the amount spent

on computer-assisted learning and network-enabled technologies in education

was $59.8 billion dollars nationwide.

However, the billions of dollars that are spent on technology for the

classrooms will not improve the teachers' instruction or the students'

achievement if school districts do not place a high value on teacher professional

development in the use of these technologies. Petrie and McGee (2012) write that

"Professional development (PD) for teachers is recognised as a key vehicle

through which to improve teaching and, in turn, to improve student achievement" (p. 59). Professional development is also a way to introduce curriculum and pedagogical reforms (Carr et al., 2000). A growing body of international research (Lieberman & Miller, 2008; O'Sullivan & Deglau, 2006; Richardson & Placier, 2001) has resulted in guidelines to support developers and deliverers of PD to understand what constitutes effective PD and approaches that are most likely to lead to improvements in teacher and school practices.

As the Information Age continues to evolve, digital media literacy continues to rise in importance as a key skill in almost every profession (Johnson, Levine, Smith, & Stone, 2010). Social media technologies are becoming pervasive in work environments, and knowledge of their affordances, applications, and uses is becoming increasingly important. In classrooms, new media technologies underscore every part of students' lives as tools for social networking, online collaboration, and media sharing are all rapidly maturing and becoming integrated in education and recreation activities (Hovorka & Rees, 2009).

Educational administrators must recognize the importance of high-quality training in the proper use of instructional technology and in the infusion of these tools into the teachers' instructional practices. In a study of technology-related teacher professional development (TTPD), Walker et al. (2012) found that

teachers in two different TTPD designs benefited, with large self-reported gains in the five knowledge constructs measured. These results support the literature arguing that professional development can have positive influences on teacher's knowledge and skills (Borko, 2004). Moreover, teachers' technological knowledge as well as integrated forms of pedagogical content knowledge and technological-pedagogical content knowledge also showed gains (Walker, 2012). Therefore, school districts have a responsibility to train their teachers to embed technology into all aspects of their teaching and to expect teachers to change or improve their instruction so that the students receive the full benefits of technology-rich classrooms.

Generation Y

This is especially true for new teachers who are beginning their teaching careers. The postulation that new teachers are ready to embed technology into their instruction because they are "digital natives" who were born in and have grown up in an age of technology (Prensky, 2001) is presumptuous at best. According to Rebore and Walmsley (2010), the current group of new teachers entering the profession is considered a part of "Generation Y." These are teachers who were born between the late 1970s and mid 1990s to Baby Boomer parents. They are digital natives who grew up with technology, and they are considered

to make up the majority of the new teachers in the next 10-15 years. Generation

Y teachers tend to exhibit the following characteristics. They:

- Communicate more through technology than in person;
- Value benefits at work;
- Seek career advancement, desire flexibility and higher pay;
- Work in teams and possess high energy;
- Work hard but also enjoy pleasure;
- Can be financially savvy;
- Want constant feedback;
- Work among and with a diverse group of individuals;
- Multitask proficiently; and
- Like change (Rebore & Walmsley, 2010).

"Many Generation Y teachers were recently Generation Y students who

were deeply connected to their parents. Many relied on e-mail and cell phones

to communicate daily with their parents" (Tapscott, 1998, p. 23). Rebore and

Walmsley (2010) state that "Probably the starkest difference between Generation

Y and any other generation is the large, available access to information" (p. 5).

The people of Generation Y acknowledge that knowledge is power, and they

believe that all knowledge can be found quickly through the Internet (Wong &

Wong, n.d.). Understanding these tendencies is important for school

administrators because Generation Y teachers bring these unique skill sets to

their schools. School leaders must appreciate this group's needs in order to hire

and then retain the most highly qualified new teachers for their districts.

Teacher Retention

Another issue facing school leaders is the high level of turnover of

teachers. The literature on teacher labor markets finds that teacher shortages

result not from problems with the number of teachers who are trained or

certified but rather from the attrition of these individuals out of the teaching

profession (Behrstock & Clofford, 2009). This teacher turnover situation is often

referred to as a "revolving door" (Darling-Hammond & Sykes, 2003; Ingersoll,

2003) or a "leaky bucket" (National Commission on Teaching and America's

Future, 2007a).

In particular, new-teacher attrition rates are as high as 50% in some areas

despite the growing need for more teachers in the field (Ingersoll, 2003). Other

researchers also have found that nearly 50% of new teachers are leaving the

profession after five years (Watlington, Shockley, Guglielmino & Felsher, 2010).

The consequences of teacher attrition have been documented by numerous

researchers which is of primary concern to educational leaders and policymakers

(Barnes, Crowe, & Schaefer 2007; Ingersoll & Smith 2003; Minarik, Thorton, &

Perreault 2003).

In his article "New-Teacher Induction 2.0" Greg Taranto (2011) provides

evidence through his research that effective new teacher induction programs

have been successful in reducing the number of new teachers leaving the

profession. Comprehensive new teacher induction should include a combination

of mentoring, professional development and support, and formal assessments for

new teachers, typically during their first two years of teaching (Wiebke & Bardin,

2009). The work of Kelley (2004) demonstrated that new teacher induction does

indeed matter, and that a meaningful induction experience has lasting effects on

teacher quality and teacher retention. Kelley writes that "Policy makers and

school district personnel should use this and other induction research to craft

and refine their induction programs and mitigate serious attrition issues. Now

more than ever, district, state, and national policy makers must take a hard look

at longstanding practices that have driven promising teachers out of the

profession and that threaten the quality of our future teacher workforce"(p. 447).

Bartlett and Johnson (2009) examined numerous research studies on new

teacher induction programs, including one that suggested that new teachers

participating in more intensive mentoring induction programs had higher scores

on measures of teaching practice in areas such as classroom atmosphere,

instruction/content, management, and student engagement (Stanulis & Floden,

2009).

Additionally, Bartlett and Johnson (2009) found research literature that illustrates some universal truths about induction. The first is that induction matters. In particular, the form and quantity of induction is related to both retention and satisfaction. Recognizing and specifying these elements in policy promises to improve the overall effectiveness of induction policy. In addition, the contention that local and professional context matter appears to be also true—though this lends itself less to policy specificity except to specify a need to leave room for local adaptability. Scholars have argued for targeted induction that addresses the curriculum and learning needs of new teachers with regard to instructional practice (Achinstein & Athanases, 2000; Feiman-Nemser, 2001; Strong, 2005) and suggest that policies regarding induction make significant increases in teacher knowledge and student achievement (Darling-Hammond, 2000).

Research Purpose

The purpose of this dissertation is to deeply study one school district that is exemplary in the use of instructional technology to enhance teachers' planning, instruction, and assessment, and to determine how this school district trains its Generation Y teachers in the use of technology, and to make recommendations to educational leaders as to the best plans for teacher induction in the area of

educational technology. The ultimate goal of a successful new teacher induction

program is to retain the very best new teachers in the field of education.

According to Breaux and Wong (2003), "New teachers must be trained if we want

them to succeed; it is much better to train new teachers and risk losing them than

not to train them and risk keeping them" (p. v). In addition, "An induction

process is the best way to send a message to your teachers, a message that you

value them and want them to succeed and stay" (Breaux & Wong, 2003, p. v).

This dissertation will address the issues of instructional technology competencies

as related to new teacher induction.

Research Questions

Based on the above stated purposes, the main research questions for this

paper are as follows:

1. What constitutes a high quality new teacher induction program for

   Generation Y teachers in order for them to appropriately utilize

   technology in their planning, instruction, and assessment?

2. What recommendations should be made for all school districts in order

   for them to properly train their new Generation Y teachers in the best

   uses of instructional technology for planning, instruction, and

   assessment?

3. What are the implications for school leaders?

Significance of the Study to the Field of Educational Leadership

A study such as this one can have a significant impact on educational leadership in three distinct areas: (1.) Educational technology planning and assessment; (2.) General new teacher induction plans; (3.) New teacher induction planning for educational technology to be implemented by school district leaders. Within these three broad areas, this study can assist school district staff in:

- Understanding the pillars of an exemplary technology program based on the most current research;
- Assessing a technology plan/program as compared to a common rubric or a set of standards and compared to a school district that is considered exemplary in the area of educational technology;
- Understanding the pillars of an exemplary new teacher induction program based on the most current research;
- Assessing induction programs as compared to a common rubric or a set of standards;
- Assessing the amount and quality of the technology portion of an induction program;
- Supporting and building upon pre-service development programs that Generation Y teachers bring to their first teaching positions;
- Developing an improved new teacher induction plan for technology instruction; and
- Building capacity in district educational leaders who can provide appropriate new teacher induction well into the future.

First, the study will provide a model for school districts in the assessment of their own technology instruction, and it will provide school leaders with an

example of an exemplary district in the area of technology. The International

Society for Technology in Education (ISTE) has developed research-based

standards for technology integration in schools.   These are the National

Educational Technology Standards, or NETS, and they are "the standards for

evaluating the skills and knowledge educators need to teach, work, and learn in

an increasingly connected global and digital society" (International Society for

Technology in Education, 2012). As technology integration continues to increase

in society, it is paramount that teachers possess the skills and behaviors of digital

age professionals. Moving forward, teachers must become comfortable being co-

learners with their students and colleagues around the world"

(http://www.iste.org/standards). In addition, ISTE has developed the National

Educational Technology Standards for students (NETS•S) and for school

administrators (NETS•A). All of these standards revolve around research

geared to improve the use of educational technology in schools. The NETS and

the accompanying research should form the foundation for exemplary

technology use in schools, and it is beneficial for all school leaders and teachers

to have a solid understanding of them.

Another valuable document is titled "Essential Conditions" which also is

published by ISTE.org/nets. This document identifies 14 conditions that are

necessary to effectively leverage technology for learning. Although not designed

as a rubric, this document could be used to identify and assess areas of strength

and weakness in a school district's technology plan (ISTE, 2009). The 14 Essential

Conditions necessary to effectively leverage technology for learning are:

- Shared vision
- Empowered leaders
- Implementation planning
- Consistent and adequate funding
- Equitable access
- Skilled personnel
- Ongoing professional learning
- Technical support
- Curriculum framework
- Student-centered learning
- Assessment and evaluation
- Engaged communities
- Support policies
- Supportive external context

In their article "A Rubric for Self-Assessment of Essential Technology

Conditions in Schools," Steckleberg et al. (2008) describe the development of a

Web-based instrument that was part of a strategic planning initiative in

technology in K-12 schools in Nebraska. The instrument provided rubrics for

self-assessment of essential conditions necessary for the integrating and adopting

of technology. In this article, the authors conclude that "Data from the initial two

years of implementation indicate that the rubric provides a useful and reliable

Web-based method for the self assessment of essential conditions necessary for integrating technology in K-12 schools" (pp. 88-89). The complete rubric can be found at http://www.education.ne.gov/techcen/documents/NERETC.pdf (see Appendix C). Table 1 is an abridged version of the rubric that was created by this researcher.

This is the conceptual framework that will be used to determine the efficacy of a district's technology plan, and it could have significant applications for districts interested in improving their technology instruction. This rubric was chosen based on the work of Steckelberg et al. (2008) in which the authors studied the reliability of RETC over a two year period. They concluded that the rubric "provides a useful and reliable Web-based method for the self-assessment of essential conditions necessary for integrating technology in K12 schools" (pp. 88-89). This rubric provides an appropriate framework for assessing a school district's use of technology, and it provides a descriptive categorization of the levels of progress a school district is making in terms of instructional technology use.

Table 1

Rubric for Essential Technology Conditions (RETC)

Technology Admin and Support	Technology Capacity	Educator Competencies & Prof. Development	Learners & Learning	Accountability
Vision Planning and Policy	Student Technology Equipment Access	Educator Use of Technology	Student Use of Technology	Student Technology Essential Learnings
Technology Support	Teacher Technology Equipment Access	Leadership	Technology Integration	Administrator Technology Competencies
Instructional Technology Staffing	Video Capacity	Professional Development	Available Technology Curriculum	Teacher Technology Competencies
Budget	Distance Learning; Conditions & Capabilities	Models of Professional Development	Community Connection	
Electronic Data Support Systems	LAN/WAN	Effective Use of Electronic Data Support	Demonstrating Effective Use of Technology in Learning	
Funding	Curriculum-based tools	Content of Technology Training		

Source: Nebraska Department of Education (2006). Nebraska Technology Plan Certification Site.

Second, new teacher induction programs are an important component in retaining high quality teachers in a school district. On December 5, 2008, the Illinois State Teacher Certification Board approved the *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs* (2008). The State of

Illinois clearly established the following goals for new teacher induction

programs:

- To provide a system for teacher induction that provides an effective transition into teaching for first and second year teachers;
- To improve student performance through improved training, information and assistance for beginning teachers;
- To enable beginning teachers to be effective in teaching a range of student populations;
- To ensure success and retention of beginning teachers who show promise of becoming highly effective professionals;
- To identify beginning teachers who need additional feedback, assistance and training; and
- To establish an effective, coherent system of formative assessments based on the Illinois Professional Teaching Standards. (p. 1)

The purpose of this document was to "set forth a clear framework to assist

in the development of research-based programs that meet local needs and are

responsive to local contexts. The standards are broad and interdependent,

describing a vision of a comprehensive and dynamic program for beginning

teachers and those who support them. The standards provide a research-based

foundation that will guide and support development of induction programs. The

intent of these standards is to foster thoughtful, high quality growth and

development; they become purposeful and meaningful when implemented fully

at the local level. Standards help reflect on best practices and effective structures

necessary to the design and delivery of high quality, effective induction

programs" (Illinois State Teacher Certification Board, 2008, p. 1).

These teacher induction standards were developed by a diverse

stakeholder group, and they were aligned to Article 21A of the Illinois School

Code. (2006) There are nine specific standards set forth by ISTCB. They are:

Standard 1: Induction Program Leadership, Administration, and Support
Standard 2: Program Goals and Design
Standard 3: Resources
Standard 4: Site Administrator Roles and Responsibilities
Standard 5: Mentor Selection and Assignment
Standard 6: Mentor Professional Development
Standard 7: Development of Beginning Teacher Practice
Standard 8: Formative Assessment
Standard 9: Program Evaluation

These standards will be used as the second conceptual framework to determine

the fidelity of a school district's new teacher induction plan. In addition, ISTCB

offers specific criteria for the development of quality new teacher induction

programs (see Appendix K). School districts in Illinois must use these standards

and the accompanying criteria when developing and assessing their new teacher

induction program.

The third impact this study will have on educational leadership is through

the case-study research on one new teacher induction program that is geared

toward technology use in the classroom. This study will detail the strengths

and/or weaknesses of the induction program in use by an exemplary elementary

school district, and it will provide a roadmap for other districts to follow when

developing an effective new teacher induction plan in the area of technology.

A new teacher induction program is a school district's initial stage of its

professional development plan for its teachers. In its paper, *Advancing Excellence*

in Technological Literacy: Student Assessment, Professional Development, and Program

Standards (2003), The International Technology Education Association (ITEA)

defines professional development as a "Continuous process of lifelong learning

and growth that begins early in life, continues through the undergraduate, pre-

service experience, and extends through the in-service years" (International

Technology Education Association, 2003). In addition, "Professional

development of teachers is an ongoing process in which teachers acquire

increasingly comprehensive levels of content knowledge, pedagogical skills, and

knowledge of how students learn" (p. 40).

Ultimately, this third phase of the study should be the most important and

the most practical for school leaders. Professional development is a necessary

component for effectively integrating technology into classrooms. Smolin and

Lawless (2011) refer to Technology Integration Professional Development, or

TIPD, as a necessary aspect for increasing technology's impact on classroom practices and student learning.

Lawless and Pellegrino (2007) take this concept one step further. They advocate that the evaluation of TIPD can facilitate changes to teaching and learning in schools, and they maintain that although there is a strong perceived need for action in terms of TIPD, the knowledge base derived through research does not guide it. In particular, these authors advocate for more careful and more systematic approaches for documenting how technology integration occurs within schools, what increases its adoption by teachers, and the long-term impacts that these investments have on teachers and students. Based on this, they propose a sequential three-phase evaluation design that includes evaluation of (1) program characteristics, (2) teacher outcomes, and (3) sustained teacher change and student achievement effects. They maintain that these phases should be sequential. They contend that more needs to be known about the varieties of program structures, such as mentoring or train the trainers' models, before student and teacher outcomes can be evaluated.

Both the Smolin and Lawless (2011) and the Lawless and Pellegrino (2007) articles have important implications for this research study. Professional development in the integration of instructional technology must begin at the

earliest stages of a new teacher's career, and school districts need to self-evaluate their new teacher induction programs in the area of instructional technology.

This study will identify the components of a high-quality new teacher induction program, it will ascertain the characteristics of a school district considered exemplary in the use of instructional technology, and it will detail the systematic approach that an exemplary school district should attempt to achieve when training its Generation Y teachers in the use of technology for planning, instruction, and assessment. If a school district has a strong technology-related professional development plan in place, then the training of new teachers will be an imperative component in order for this plan to remain strong and effective. Furthermore, an added benefit of a good induction plan for new teachers is that the information presented in this training would be infused into all areas of the school district, including all of the teachers and administrators, thus systematically improving the use of instructional technology throughout an entire school district.

Proposed Methodology

This will be a qualitative, phenomenological case study based on the definition as presented by Merriam (2009). Merriam states that "A case study is an in-depth description and analysis of a bounded system" (p. 40). By bounded

system, Merriam is referring to a single unit or entity where there are boundaries

to the study. For example, studying the phenomenon involving a single person,

a group, an institution, or a policy would be considered a bounded study.

Furthermore, Yin (2008) defines a case study as "an empirical inquiry that

investigates a contemporary phenomenon within its real-life context, especially

when the boundaries between phenomenon and context are not clearly evident"

(p. 18). Based on these definitions, in an educational setting, a case study could

be about one particular program, classroom of learners, or school district.

According to Schram (2003), "phenomenology is a study of people's

conscious experience of their life-world, that is their everyday life and social

action" (p. 71). In this type of study, "The phenomenological interview is the

primary method of data collection" (Merriam, 2009, p. 25). Furthermore,

Merriam writes that a phenomenological approach is appropriate for studying

emotional and intense human experiences. In addition to individual interviews,

surveys, document reviews, and observations will be conducted to reveal the

human experiences of Generation Y teachers and whether they receive a high

quality induction program in order for them to fully embed technology into their

instruction

This study will focus on one school district in depth and on multiple

levels. This case study should be considered particularistic in nature because it

will focus on a particular program, and it will reveal the specificity of the

program. In this particular study, an elementary school district (pre-k through

8th grade) considered as "exemplary" in the use of technology will be selected

based on the fact that it has been recognized nationally as a leader in the use of

technology. In 1998 the district received the National School Board Association's

Institute for Transfer of Technology to Education (NSBA/ITTE) Video Salute for

creating improved teaching and learning environments using technology, and

again in 1998 it was the first recipient of the Reed Hundt Award from the

National School Board Association for excellence in the effective use of

technology. In addition, this district was the 2003 recipient of the Malcolm

Baldridge National Quality Award. Finally, the district was awarded the 2004

Technology Leadership Network Trailblazer Award.

More recently, this district has received the following accolades from the

educational community.

- A seventh grade reading/language arts teacher was the 2013 recipient of the Illinois Computing Educators (ICE) "Educator of the Year Award" for his work embedding technology into his instruction.

- Since 2011, 13 teachers have won the "Those Who Excel" award from the Illinois State Board of Education, including a team of two teachers who won for their work with assistive technology.
- Nine of the district's 20 schools have been recognized by the United States Department of Education as Blue Ribbon Schools of Excellence.
- Since 2011, 20 teachers have earned their National Board Certification.
- Motorola Solutions Foundation has awarded nearly $110,000 to this district in grant money to assist students who wish to further pursue their interests in science, technology, engineering, and mathematics.
- The district's educational foundation awarded the schools with funds to purchase iPads in May 2012.

Furthermore, in 2012 this district launched a STEM (science, technology, engineering, and mathematics) program to develop 21st century skills among all of its middle school students.

After an extensive Internet search of national and state technology awards, this researcher was able to find only two other awards given to Illinois educators or school districts since 2004.

- In 2006, a high school district north of Chicago won the Sylvia Charp Award for District Innovation in Technology.
- In 2007, an elementary school teacher in a northwest suburb of Chicago was awarded the International Society for Technology in Education (ISTE) Outstanding Leader Award.

Thus, the chosen school district has been singled out most recently in Illinois as one that is exemplary in the area of instructional technology. Finally, aside from winning some of the most recent technology awards in the State of Illinois, this

district is large enough to provide an excellent sampling of Generation Y teachers and district administrators from which to survey and interview.

Data regarding the chosen district's new teacher induction program will be collected from numerous primary sources, and these data will be studied in relation to the hallmarks of high-quality new teacher induction programs. By studying the induction program utilized in this school district, this researcher will be able to develop a compelling program for new teacher induction in the area of instructional technology. As Merriam (2009) writes, "case study has proven particularly useful for studying educational innovations, evaluating programs, and informing policy" (p. 51). This study will review the innovations underway in the use of instructional technology, it will evaluate a current exemplary program, and it will propose policy for school districts to follow when developing new teacher induction programs.

The first step in the process was to identify a school district that is considered exemplary in the use of instructional technology. Regional Offices of Education throughout Illinois were contacted and asked for names of districts that might qualify for this study. Then, out of the list that was generated, an exemplary district was chosen for this study. This district was chosen because it won the aforementioned awards.

Next, a description of the district will be developed to provide some background. This description will include district demographics, budgets, test scores, available computer hardware, new teacher induction plans, and technology plans will be included in the descriptions. These details will help develop a context in which to study the district's use of technology and its new teacher induction process.

Third, an in-depth study of the selected district will take place. This research will focus on the systems in place for new teacher induction at the district, building, and classroom levels in place in this district. The following will be used to collect data:

- Documents (district level)
- Timeline used for new teacher induction across the school year (district level)
- A survey of Generation Y teachers who were hired between 2010 and 2013 (classroom level)
- Interviews of school-based administrators (building level)
- Interviews of district administrators (district level)
- Observations of new teacher induction sessions (district level).

The Figure 1 represents how these data will be triangulated.

Observations and
artifact reviews

Nebraska Rubric
&
Illinois NewTeacher
Induction Standards

Administrator
Interviews

Generation Y
Teacher Surveys
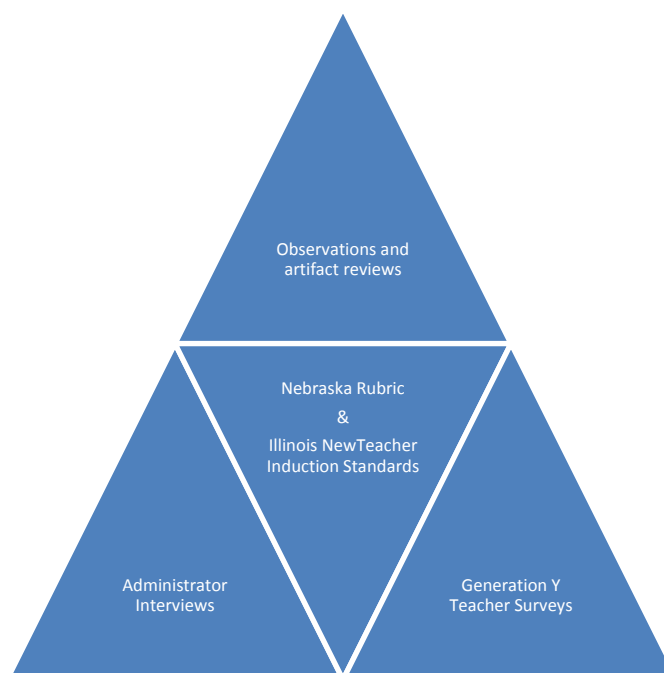
Figure 1. Data Triangulation

Proposed Areas of Related Literature

The first area of related research to be studied is the standards or

hallmarks of high quality new teacher induction programs. The research in this

area will focus on the most important tenets of new teacher induction in order to

ensure the success and thus the retention of new teachers in a school district.

State boards of education, starting with Illinois and then branching out to other

states, will be studied to see if they have requirements, or minimally, suggestions

for new teacher induction programs in their states. Another portion of the

research will be to look at the collected models of induction programs and identify the aspects of technology that are embedded therein.

A second area of related research will be focused on the characteristics of those teachers who are considered Generation Y. The research in this area will be centered on the general characteristics of those considered as Generation Y, and it will focus on the professional characteristics of Generation Y teachers. In addition, the research will center on Generation Y teachers including their use of technology in the classroom, their preferred method of new teacher induction, and the implications for their future needs in the area of professional development.

A third area of will be a study of the most current standards in place for educational technology. As stated above, ISTE will be the first place to research. Because these are research based standards, they will most likely lead to other resources for study and research. A related area of research will be on state expectations for school district technology plans. This will necessitate studying select state boards of education for technology plan templates, including Illinois's board of education website. Finally, for this area, research will need to be done to find more than one appropriate rubric for assessing school district technology

plans. The Nebraska rubric, which has been identified above, appears to be the most promising for this study.

The retention of the best new teachers is another crucial issue facing school leaders. Data showing that nearly 50% of new teachers are leaving the profession within their first five years is disconcerting (Watlington, Shockley, Guglielmino & Felsher, 2010). Research has shown that comprehensive new teacher induction programs have had positive effects on teacher retention (Taranto, 2011). Within this boom of increased instructional technologies in schools and classrooms, school leaders must do more to train new teachers in the use of technology in their classrooms to avoid losing the best and the brightest new teachers.

Furthermore, new teachers who are part of the Generation Y culture are currently graduating from universities with the natural skills for using technology in their personal lives. The question is whether they are ready to incorporate technology into their lesson planning, instruction, and student assessment. Ensuring that new teachers are ready to teach in technology-rich classrooms provides a significant challenge for school leaders.

Finally, numerous studies have shown that computers and Internet use in classrooms has grown tremendously over the last 15 years (Gray, Thomas, Lewis

& Tice, 2010; Parsad, Jones, & Greene, 2005; Snyder & Dillow, 2010). School

districts are investing billions of dollars in the latest hardware and infrastructure

to provide teachers with the tools to teach in a 21st century classroom (The

Executive Office of the President's Council of Economic Advisors, 2011). But

new computers in classrooms will not improve instruction unless teachers are

provided with the proper professional development in the use of instructional

technologies (Lieberman & Miller, 2008; O'Sullivan & Deglau, 2006; Petrie &

McGee, 2012; Richardson & Placier, 2001).

This study is significant for educational leaders in that it will identify the

best technology induction processes for Generation Y teachers so they can fully

embed technology into their planning, instruction, and assessment and remain in

the field of education for many years to come.

Limitations

While this study attempts to gather data on the best induction programs

for new teachers, there may be limitations to this work. First, the study of one

school district may be limiting in scope. A larger sampling of school districts

could reveal more information regarding new teacher induction programs and

their focus on instructional technology. A second limitation may be that the

researcher will find school districts or individuals who are not willing to

participate in such a study. With the focus on a district that is considered

exemplary in the use of technology in the classroom, the lack of participation

may be limiting in the collection of data. Another limitation could be that the

non-tenured teachers who take part in the survey may be reluctant to answer the

questions openly and honestly. Although anonymity will be guaranteed, there is

always the chance that new teachers will be hesitant to answer some of the

questions. A fourth limitation is similar to the one above in that there may be

administrators who are reluctant to answer questions openly and honestly

during the face to face interviews which will be recorded. Confidentiality will be

guaranteed, but there is still the chance that administrators may be defensive of

their induction programs or may not speak freely due to fear of ramifications. A

fifth limitation may be related to the fact that only Generation Y teachers will be

surveyed as opposed to all new teachers which would include those from the

Baby Boomer generation and Generation X. Although Generation Y teachers will

make up the majority of those participating in new teacher induction programs

in the near future, there will be others participating as well, and these other

teachers may have needs that are different than those identified for within

Generation Y.

Finally, with one researcher analyzing these data that will be collected, there is always the chance for bias, especially with the researcher's current beliefs and understandings of technology use in the classroom. Specifically, this researcher is an elementary school principal who is considered to be a leader in the use of technology in his work. He has conducted administrator academy and district-level workshops on this topic, he models the use of technology within his school community, and he expects teachers to incorporate instructional technology into their planning, teaching, and assessing of student learning. To help minimize such bias, the researcher will keep a journal throughout the data collection process. The use of this journal will allow the researcher to write his ongoing reflections regarding the potential for bias that may emerge as these data are being collected. The objective is for the researcher to remain as unbiased as possible while analyzing and interpreting these data.

Despite these limitations, this study, through surveys, interviews, and other data collection methods, will present a positivist perspective on new teacher induction in the area of instructional technology. As Merriam (2009) writes, "A positivist orientation assumes that reality exists 'out there' and it is observable, stable, and measurable" (p. 8). There is no doubt that most, if not all, teachers are using technology in their classrooms, and that new teachers are

receiving induction training upon their initial hiring in a school district.

Educational leaders must be prepared to provide new teachers with appropriate

professional development in the use of instructional technology in their

classrooms as one important component for retaining the best and brightest new

teachers.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter summarizes the literature relevant to the primary research

questions posed in this case study:

1. What constitutes a high quality new teacher induction program for

   Generation Y teachers in order for them to appropriately utilize

   technology in their planning, instruction, and assessment?

2. What recommendations should be made for all school districts in order

   for them to properly train their new Generation Y teachers in the best

   uses of instructional technology for planning, instruction, and

   assessment?

3. What are the implications for school leaders?

This literature review will focus on the important aspects of new teacher

induction programs, the innate qualities of Generation Y teachers, and the

current use of instructional technology in schools. The purpose of this literature

review is to provide the foundational knowledge necessary to answer the

primary research questions posed in this study.

New Teacher Induction

Pre-Service Preparation

To understand the instructional technology professional development and

new teacher induction needs that new teachers bring to the profession; one must

first understand what they were taught and what they experienced in typical

college pre-service programs. The use of technology has expanded from an

optional tool to one that is required in the world of work (Stobaugh & Tassell,

2011).

> To respond to this need, universities are altering courses to infuse the
> introduction and utilization of technological tools to enhance instruction.
> The end product is that pre-service teachers should graduate with the
> skills to seamlessly integrate technology to advance student learning. (p.
> 144)

The National Council for Accreditation in Teacher Education (NCATE)

has developed specific responsibilities for teacher education programs for

accreditation purposes by requiring certain standards. NCATE delineated the

following six standards:

Standard 1: *Candidate Knowledge, Skills, and Professional Dispositions*
Standard 2: *Assessment System and Unit Evaluation*
Standard 3: *Field Experiences and Clinical Practice*

Standard 4: *Diversity*
Standard 5: *Faculty Qualifications, Performance, and Development*
Standard 6: *Unit Governance and Resource*

Within Standard One there are numerous references to the integration of technology, and within Standard Six NCATE describes effective units as possessing information technology to serve the university and the community (Stobaugh & Tassell, 2011). Vannatta and Beyerback (2000) noted, "…schools, colleges, and departments of education have sought not only to provide courses on educational technology but also to infuse technology into the teacher education curriculum such that pre-service teachers experience technology-rich instruction both as students and as teachers" (p. 132).

The National Center for Education Statistics (NCES) 2007 reported on education technology used in teacher education programs. In this report, respondents were asked about the extent to which their institutions' teacher education programs for initial licensure taught teacher candidates how to use technology tools for various purposes, including enhancing or enriching classroom instruction, understanding individual student learning styles, assessing individual student progress and challenges, and designing instructional interventions to individualize student instruction. The results are listed below:

- 57% instructed pre-service teachers about how to use technology to augment classroom instruction;
- 17% instructed pre-service teachers on employing technology to assess student achievement;
- 17% trained pre-service teachers on designing instructional interventions to individualize instruction; and
- 15% addressed how to utilize technology to accommodate for various student learning styles. (p. 10)

In concluding its report, the NCES (2007) stated that "the institutions did not vary much by institutional and program characteristics, a finding that indicates a fairly common approach to educational technology across the nation's teacher education programs for initial licensure" (p. 17). Additionally, the NCES reported that the majority of colleges and universities offering teacher education programs prepared their teachers at least moderately for the use of instructional technology in classrooms. The report also concluded that the majority of these institutions experienced moderate to major barriers that hindered their ability to prepare pre-service teachers to integrate technology into their teaching. Such barriers included the lack of faculty training and interest and the lack of available technology infrastructure. The research is clear that new teachers entering the profession are not fully prepared to incorporate instructional technology into their planning, instruction, and assessment practices, thus the need for new teacher induction in this area is apparent.

The Need for New Teacher Induction

The retention of new teachers has garnered much attention in the past few decades. Ingersoll (2001) has collected a substantial amount of empirical research focused on determining which kinds of teachers are more prone to leave teaching and why they leave the profession. An

> important finding has been that teachers' decisions whether to stay or leave the teaching profession are related to their age. The relationship between teachers' age (or teaching experience, in some analyses) and their turnover follows a U-shaped curve. Although there is some disagreement as to why this is the case, researchers have consistently found that younger teachers have very high rates of departure. (p. 502)

Lack of support through professional development is an area frequently discussed when beginning teachers leave the educational profession (Schaefer, Long, & Clandinin, 2012). Algozzine, Gretes, Queen, and Cowan-Hathcock (2007) conducted a study that utilized a cross-sectional instrument to survey third-year teachers who had participated in induction programs. They found that (a) mentoring by experienced teachers, (b) release time for observing (both same field and variant field), (c) common planning times, and (d) creating networks of new and experienced teachers was found to help support beginning teachers better cope with entry into the profession.

New teacher induction is a process by which school districts provide

initial inservice training to their newly hired teachers. Taranto (2011) states that

"Teacher induction programs have been shown to be effective strategies in

reducing new teacher attrition" (p. 1). Other researchers have written that

comprehensive programs designed around the new teacher to provide a

foundation in professional development and support are necessary to prepare

new teachers entering the field (Kaufman, Johnson, Kardos, Liu, & Peske, 2002;

Wong & Asquith, 2002).

Wood and Stanulis (2009) state that the goals of quality induction are to:

- Increase novice teachers' retention;
- Promote novice teacher personal and professional well-being
- Improve teacher competence;
- Improve students' academic achievement through improving teacher performance; and
- Satisfy mandated requirements related to induction and certification (pp. 4-5).

These authors define new teacher induction as "an intensive, comprehensive

system of educative mentor support, professional development, and formative

assessment of novice teachers in their first through third years of teaching" (p.

15), and they recommend that quality induction programs encompass the

following nine program components:

1. Educative mentors' preparation and mentoring of novice teachers;

2. Reflective inquiry and teaching practices;
3. Systematic and structured observations;
4. Developmentally appropriate professional development;
5. Formative teacher assessment;
6. Administrators' involvement in induction;
7. A school culture supportive of novice teachers;
8. Program evaluation and/or research on induction;
9. A shared vision of knowledge, teaching, and learning (p. 5).

In their book, *New Teacher Induction: How to Train, Support, and Retain New Teachers*, Breaux and Wong (2003) explain that new teacher induction programs

> are a smart investment in the ongoing training, support, and retention of beginning teachers, who, as a result of the programs, become more qualified, capable, and effective teachers. Successful induction programs go a long way toward improving the quality of teaching and ensuring student achievement. (p. 11)

Breaux and Wong (2003) define induction as "a structured training program that must begin before the first day of school and continue for two or more years" (p. 5). New teacher induction has these three basic purposes:

1. To provide instruction in classroom management and effective teaching techniques;
2. To reduce the difficulty of the transition into teaching; and
3. To maximize the retention rate of highly qualified teachers. (p. 5)

According to Bartlett and Johnson (2010)

> there is great variety both within and across states as to the instrumentation and goals of induction. Induction can mean a 1-day workshop, a series of classes, an ongoing teacher-learning network, a mentor to work one-on-one with the new teacher, or some combination thereof. (pp. 847-848)

New teacher induction can be very basic such as a "buddy system" where the

school district assigns a mentor for a new teacher who acts as a supportive friend

during the beginnings of their teaching career (Stanulis, Burrill, & Ames, 2007).

On the opposite end of the new teacher induction continuum, a very detailed

and specific program is developed lasting three or more years. These types of

programs provide new teachers with highly trained and networked members of

an induction/learning community offering formative assessment and feedback

based on and directed at the improvement of their evolving teaching practice

(Bartlett & Johnson, 2010).

The efficacy of new teacher induction programs is the topic of study

among scholars (Bartlett & Johnson, 2010). A recent study by Stanulis and

Floden (2009) explored the differences between an intensive mentoring induction

model developed through a university– district partnership and a less intensive

district-led model. The intensive mentoring model included instructional

mentoring, mentor observation and feedback, and the analysis of student work

with a university trained, partial-release mentor. The findings of this study

suggest that new teachers participating in the more intensive mentoring

induction program had higher scores on measures of teaching practice, which

examined classroom atmosphere, instruction/content, management, and student

engagement district partnership than a less intensive district-led model (Bartlett & Johnson, 2010).

Conversely, in a study by Glazerman et al. (2008), little variation was discovered after one year between traditional district offerings and comprehensive induction programs in retention, student achievement, or teacher practice. Although this study may have been limited by a lack of model variation, results from the second year of this study may alter the overall findings (Bartlett & Johnson, 2010). Nonetheless, these authors write that research literature illustrates a universal truth about new teacher induction. That is - induction matters. Specifically, the form and quantity of induction is related to both retention and satisfaction.

In their 2012 report titled "New Teacher Induction Programs," Hanover Research wrote, "Effective teacher induction has been shown to have a positive impact on professional persistence, student achievement, and instructional effectiveness" (p. 2). The Hanover report details five key findings related to effective new teacher induction. First, although typical school district practices involve only a limited orientation and mentorship, the best practice should take a more extended, in-depth approach. Second, the goals of new teacher induction should include boosting student achievement, combating teacher attrition, and

improving teacher effectiveness. Third, essential program components should

include administrative support, social/emotional support, networking

opportunities, professional development, and formal evaluations. Fourth, all of

the exemplary new teacher induction programs examined in this report included

an extensive initial orientation session. Finally, exemplary districts also go

beyond initial orientations to provide continuous follow-up support for new or

novice teachers (pp. 2-3).

Recognizing and specifying these elements in policy promises to improve

the overall effectiveness of induction policy (Bartlett & Johnson, 2010). Scholars

have argued for targeted induction that addresses the curriculum and learning

needs of new teachers with regard to instructional practice (Achinstein &

Athanases, 2000; Feiman-Nemser, 2001; Strong, 2005), and they suggest that

policies regarding induction make significant increases in teacher knowledge

and student achievement (Darling-Hammond, 2000).

Components of New Teacher Induction

There are numerous resources available which outline the necessary

components of a new teacher induction program. Breaux and Wong (2003) write

that there are certain commonalities that underlie the most successful programs,

and these authors recommend that school administrators include the following

components into their new teacher induction programs:

- Start with an initial four or five days of induction before school begins;
- Offer a continuum of professional development through systematic training over a period of two or three years;
- Provide study groups where new teachers can network and build support, commitment, and leadership in a learning community;
- Incorporate a strong sense of administrative support;
- Integrate a mentoring component into the induction process;
- Present a structure for modeling effective teaching during in-services and mentoring;
- Provide opportunities for inductees to visit demonstration classrooms (p. 33).

In a strong induction program, the trainers become the "teachers," and the

new teachers become the "students." Initially, the primary focus is on the

instructing of new teachers in techniques that ensure student success. The

trainers immerse new teachers in the culture of the district, they demonstrate and

model effective classroom instructional and management techniques, and they

start to build a relationship that will last for several years (Breaux & Wong, 2003).

The Alliance for Excellent Education, a national policy and research

organization that works to help make every child a graduate, developed a

research-based report on the importance of high-quality new teacher induction

programs. Published in 2004, the Alliance's report, titled "Tapping the Potential:

Retaining and Developing High-Quality New Teachers," provides clear data that

prove the importance of effective new teacher induction. For example, although

"One out of every two new teachers hired will quit in five years," comprehensive

new teacher induction programs cut attrition rates in half (p. 2). As described in

this report, "Comprehensive induction is a combination of mentoring,

professional development and support, and formal assessments for new teachers

during at least their first two years of teaching" (p. 2). Furthermore,

"comprehensive induction helps to develop novice teachers into high-quality

professionals who improve student achievement. What is more, induction has

shown to create a payoff of $1.37 for every $1 invested" (p. 2). Finally, this report

states that although,

> Many schools and districts have some form of induction or mentoring
> program for new teachers. Unfortunately, only 1 percent of beginning
> teachers currently receive the ongoing training and support that
> constitutes comprehensive induction when they enter the teaching
> profession. (p. 2)

The Alliance's report lists five necessary components in an effective new

teacher induction program. These are:

- *High-quality mentoring* - This is defined as structured mentoring from a
  carefully selected teacher or teachers who work in the same field or
  subject as the new teacher, are trained to coach new teachers, and can
  help improve the quality of teachers' practice.
- *Common planning time* - Regularly scheduled common planning time
  helps teachers connect what and how they teach to improving student
  achievement in a collaborative culture.

- *Ongoing professional development* - These activities include regular seminars and meetings that improve a teacher's skill to increase student learning. Professional development should be designed to meet new teachers' needs in the areas of content knowledge, instructional practices, addressing diverse student learning needs, and classroom management.
- *An external network of teachers* - Participation in a network of educators outside of the local school provides teachers with a community of colleagues within which to collaborate and receive support, keeping them from feeling isolated
- *Standards-based evaluation* - Standards-based evaluation of all beginning teachers provides a mechanism for determining whether or not new teachers should move forward in the profession. (p. 2)

Finally, the Alliance for Excellent Education recommends the following essential

elements in order to retain teachers and improve their overall quality.

Comprehensive induction should include:

- strong principal leadership;
- high-quality providers of the induction program with dedicated staff resources;
- additional support for new teachers with little preparation;
- incentives for teachers to participate in induction activities;
- alignment between induction, classroom needs, and professional standards; and
- an adequate and stable source of funding.

According to the New Teacher Center (www.newteachercenter.org), a

national non-profit organization dedicated to improving student learning by

accelerating the effectiveness of new teachers and school leaders,

Successful teacher induction systems focus on student learning and teacher effectiveness. Strong programs include instructional mentoring by

carefully selected, well prepared, released mentors; professional learning communities for mentors and new teachers; engaged principals; and supportive school environments and district policies. (http://www.newteachercenter.org/induction-programs)

The New Teacher Center (NTC) is committed to designing and implementing robust teacher induction programs and to building the capacity of educators to ensure the long-term sustainability of programs. NTC works with state organizations and local school districts to assist in the development of new teacher induction programs which include five key implementation phases that combine to deliver a sustainable, high-quality teacher induction program. Table 2 below details the five phases of NTC's new teacher induction program.

To conclude, the National Education Association (2002) has defined three models of new teacher induction. The first is a Basic Orientation Model where school personnel teach their new employees about the districts' policies and procedures, and where mentors are assigned to their new teachers. These mentors, "typically serve in an informal capacity, with little attention given to modeling effective instructional practice" (p. 2). A second, more intensive model is called the Instructional Practice Model. This model also covers policies and procedures, but it further includes classroom management issues. In addition,

Table 2

New Teacher Center - Five Phases of New Teacher Induction

PHASE	PROGRAM SUMMARY
PHASE I: **Pre-Implementation** **Laying the Groundwork**	**Assessment of District Context:** • Consultation for in-depth understanding and partnership development • Development of initial scope of work and timeline • NTC Induction Institute • NTC guidance, coaching, and facilitation for program implementation and assessment • Support for mentor recruitment
PHASE II: **Year One Implementation** **Getting Started**	**Program Launch:** • Mentor Academies 1-4 • Principal engagement • Impact plan development, implementation, and assessment • Alignment with other district initiatives • Design and facilitation of mentor forums •
PHASE III: **Year Two Implementation** **Deepening &** **Strengthening** **Induction**	**Full Implementation:** • Mentor Academies 5-8 • Principal professional development • Continual alignment with district initiatives • NTC Community of Practice for program leaders • Consultation around mentor forums
PHASE IV: **Year Three** **Implementation** **Building Sustainability**	**Gradual Release:** • Mentor Academies 9-11 • Coaching, quality assurance, and consultancy services • Co-presenting with NTC staff • Aligned professional development for coaches, principals, and others
PHASE V: **Year Four & Beyond** **Sharing & Learning** **for Innovation**	**Ongoing Refinement:** • Access to quality control • Program autonomy • Induction leadership networks • Mentor alumni network

Retrieved from: http://www.newteachercenter.org/induction-programs/new-teacher-induction

this model links induction to current state and local teaching standards, and skilled, well-trained mentors are assigned to assist the new teachers with research-based instructional strategies. The third model of new teacher induction as defined by the NEA is called the School Transformational Model. This model, which is rarely utilized by school districts, incorporates the components of the first two models, while also "connecting induction programs to systemic, school-wide renewal efforts that promote continuous improvement" (p. 2). This model is research based, and it uses data to assess and change its professional development practices, teacher evaluation systems, and curriculum.

State Standards for New Teacher Induction

Bartlett and Johnson (2010) examined the new teacher induction policies of three mid-western states - Illinois, Ohio, and Wisconsin. The authors discovered that, "although the orientation and conception of each state's policy is similar, the states represent three different structural approaches to induction policy" (p. 847). Of the three states included in the study, only Ohio has a state mandate with specific guidelines that are tied to teacher credentialing and that are funded by the state. Actually, the authors found that Ohio is one of only 16 states that fund new teacher induction programs with state funds. Wisconsin's new teacher induction policy, although tied to teacher credentialing, is unfunded

by the state. Finally, Illinois's new teacher induction policy is essentially

dormant with no funds available to school districts to assist with new teacher

induction.

"The lack of state funding and continuity in program can contribute to

great inequities" (Bartlett & Johnson, 2010, p. 868). In addition,

> State policy should ensure an even enactment of induction programs.
> Following the logic of induction, participation in a comprehensive
> program leads to increased teacher learning resulting in higher quality
> teachers and better teacher retention and, by extension, to increased
> student learning. (p. 868)

These authors argue that state funding, guidance through clear information

about the state's program quality and quantity, and definitive, measureable goals

are all necessary for effective new teacher induction. This leads one to look for a

high-quality rubric to assess a school district's new teacher induction program.

In February, 2012, New Teacher Center (www.newteachercenter.org)

published its *Review of State Policies on Teacher Induction* which provides

comprehensive summaries for all 50 states. For each state, the NTC reviewed the

presence or absence of policies related to 10 key criteria that are most critical to

the provision of universal, high-quality induction and mentoring support for

beginning educators. The state summaries capture all relevant policies, statutes,

regulations, induction program standards, and other guidance on new teacher

induction and mentoring. According to the NTC:

> The insufficiency of state induction policies comes to light when we
> compare states across multiple policy criteria. For example, our analysis
> determined that 27 states require some form of induction or mentoring
> support for new teachers (and 11 require two or more years of induction
> support), that 22 states require completion of, or participation in, an
> induction program for advanced teaching certification, and that 17 states
> provide some dedicated funding for teacher induction. However, only 3
> states—Connecticut (CT), Delaware (DE) and Iowa (IA)—require schools
> and districts to provide multi-year induction support to beginning
> teachers, require teachers to complete an induction program to obtain a
> professional teaching license, and provide dedicated state induction
> funding. Only three. Further, like many other states, each of these three
> have shortcomings in their policies governing induction for beginning
> school principals (not required in CT, required for only one year in DE
> and IA), adoption of induction program standards (only in CT), policies
> governing on-going mentor professional development (only in CT), and
> limitations on full-time mentors (in CT and DE). It is not our intention to
> be overly critical of these three states as they certainly are among the
> leaders in this policy area. It is simply to show the need to strengthen state
> policies on new educator induction across the board—and even in states
> at the head of the pack. (p. iv)

The New Teacher Center's *Review of State Policies on Teacher Induction*

clearly identifies and defines the 10 criteria for the most effective new teacher

induction. The NTC contends that

> states that come closest to meeting all 10 criteria will raise the likelihood
> that every new educator receives a sufficient level of induction and
> mentoring support, will ensure that local programs are comprehensive
> and include key quality components, and will enjoy the resulting benefits,
> including enhanced teacher effectiveness. (p. vi)

The NTC criteria for effective new teacher induction programs are listed below. These were used as the rubric for assessing each state's new teacher induction program. NTC State Induction Policy Criteria:

1. Teachers Served: State policy should require that all teachers receive induction support during their first two years in the profession;
2. Administrators Served: State policy should require that all school administrators receive induction support during their first two years in the profession;
3. Program Standards: The state should have formal program standards that govern the design and operation of local teacher induction programs;
4. Mentor Selection: State policy should require a rigorous mentor selection process;
5. Mentor Training: State policy should require foundational training and ongoing professional development for mentors;
6. Mentor Assignment and Caseload: State policy should address how mentors are assigned to beginning teachers, allow for manageable mentor caseloads, and encourage programs to provide release time for mentors;
7. Program Delivery: State policy should identify key induction program elements, including a minimum amount of mentor-new teacher contact time, formative assessment of teaching practice, and classroom observation;
8. Funding: The state should provide dedicated funding to support local educator induction programs;
9. Educator Accountability: The state should require participation in and/or completion of an induction program to advance from an initial to professional teaching license; and
10. Program Accountability: The state should assess or monitor program quality through accreditation, program evaluation, surveys, site visits, self-reports, and other relevant tools and strategies.

Illinois

The State of Illinois passed Public Act 092-035, *New Teacher Induction and Mentoring*, on July 24, 2004. Section 21A-10 of this act required public school districts to develop new teacher induction programs "that will assist new teachers in developing the skills and strategies necessary for instructional excellence, provided that funding is made available by the State Board of Education from an appropriation for this purpose." This law further outlines the following requirements for a new teacher induction program:

1. Assigns a mentor teacher to each new teacher for a period of at least two years.
2. Aligns with the Illinois Professional Teaching Standards, content area standards, and applicable local school improvement and professional development plans.
3. Addresses all of the following elements:
   (A) Mentoring and support of new teacher
   (B) Professional development
   (C) Formative assessment designed to ensure feedback and reflection.
4. Describes the role of the mentor teacher, the criteria for their selection, and how they will be trained.

Funding for new teacher induction programs was to be $1,200 per each new teacher in a school district for the two year mentoring period. These funds were to be designated for the purposes of mentor teacher compensation, mentor teacher or new teacher training, and release time (Illinois Public Act 093-0335,

2004). To date, state funding for new teacher induction in Illinois has not

materialized (Bartlett & Johnson, 2010).

In accordance with Article 21A of the 2006 Illinois School Code, the Illinois

State Teacher Certification Board developed nine *Standards of Quality and*

Effectiveness for Beginning Teacher Induction Programs (2008). They are:

Standard 1:   Induction Program Leadership, Administration, and
Support
The induction program has an administrative structure with specified
leaders who plan, implement, evaluate and refine the program through
data analysis, program evaluation, and stakeholder communication linked
to relevant standards.

Standard 2:   Program Goals and Design
Local program design is focused on beginning teacher development,
support, retention and improved student learning. The goals are guided
by current induction research, effective practices, Illinois Standards of
Quality and Effectiveness for Beginning Teacher Induction Programs, the
district/school improvement plan and local concerns/context.

Standard 3:   Resources
Program leadership allocates and monitors sufficient resources to meet all
goals and deliver program components to all participants.

Standard 4:   Site Administrator Roles and Responsibilities
Site administrators lead efforts to create a positive climate for the delivery
of all essential program components. Site administrators and program
leadership collaborate to ensure that they are well prepared to assume
their responsibilities for supporting beginning teachers in the induction
program.

Standard 5:   Mentor Selection and Assignment
Mentors are recruited, selected and assigned using a comprehensive strategy that includes a clearly articulated, open process and specific criteria that are developed by and communicated to all stakeholder groups.

Standard 6:   Mentor Professional Development
Mentor professional development provides a formal orientation and foundational mentor training before they begin their work with beginning teachers and should continue over the course of the mentor's work with beginning teachers. Mentors have time, supported by the program, to engage in this mentor learning community and are consistently supported in their efforts to assist beginning teachers in their development, with a focus on student learning.

Standard 7:   Development of Beginning Teacher Practice
Beginning teachers have regularly scheduled time, provided during the two year program, to participate in ongoing professional development that is focused on their professional growth to support student learning.

Standard 8:   Formative Assessment
Beginning teachers and mentors participate in formative assessment experiences, collaboratively collecting and analyzing measures of teaching progress, including appropriate documentation, mentor observations and student work, to improve classroom practices and increase student achievement.

Standard 9:   Program Evaluation
Programs operate a comprehensive, ongoing system of program development and evaluation that involves all program participants and other stakeholders.

This standards document further details each of the nine standards for new teacher induction by providing definitions and specific criteria for quality program development. This document will be used as a second conceptual

framework to assess the case study's new teacher induction program (see

Appendix K).

Generation Y Teachers

Baby Boom teachers (those born between 1946 and 1964) are retiring from

the profession in large numbers, and the next group of teachers who make up

what is considered Generation X (those born between 1965 and 1976), is moving

into their places as the senior teachers in schools. This generational change in the

teaching workforce has left openings for the newest generation of teachers. This

group has been identified as Generation Y (those born roughly between 1977 and

1995) (Behrstock & Clifford, 2009).

Table 3 presents the current generations, some key characteristics that

define them, and the percentages of each one in the United States workforce.

Lovely and Buffum (2007) prefer the term "Millennials" when writing

about those born during the Generation Y years. In defining this generation,

Lovely and Buffum write, "They are in our classrooms as students, finishing

student teaching at the university, and beginning to apply for classroom jobs all

across the nation. They are well educated and open minded, and they love to

collaborate. They are entering the schoolhouse with huge expectations, and if

they are not pleased, they're only a click away from letting hundreds of friends

know about it" (p. 71). These authors affirm that we all better prepare for their

continued emergence as students and as new teachers.

Table 3

Current U.S. Generations

Generation	Born Between	Estimated Size	Attributions	% of U.S. Workforce in 2000	Projected % of U.S. Workforce in 2010	Projected % of U.S. Workforce in 2020
The Mature Generation	1925-1945	75 million	Loyal, formal, trusting of authority	13%	3%	N/A
Baby Boomers	1946-1964	82 million	Optimistic, idealistic values, career focused	48%	37%	20%
Generation X	1965-1976	50 million	Skeptical, informal, self-reliant	22%	22%	20%
Generation Y	1977-1995	79 million	Realistic, moral values, committed, achievement focused	16%	38%	44%

Source: Behrstock and Clifford, 2009, p. 1.

To further help define the generation called Millennials, Lovely and

Buffum (2007) quote from Claire Raines's book, *Connecting Generations: The*

Sourcebook for a New Workplace. In this book, Raines identifies eight major trends

over the last 20 years that have shaped the personalities of Millennials. They are:

- Focus on children and family;

- Scheduled, structured lives;
- Multiculturism;
- Terrorism;
- Heroism;
- Patriotism;
- Parent advocacy; and
- Globalism.

These trends have had an impact on how current students and our youngest group of teachers perceive the world, what they expect from themselves and others, and the values they bring into our classrooms (Raines, 2003). The values that have been developed during their formative years have played an impact on the distinct characteristics of Generation Y teachers.

Characteristics of Generation Y

The characteristics of those individuals falling within Generation Y have been clearly delineated by many researchers and authors. In their book, *Millennials go to College: Strategies for a New Generation on Campus*, Howe and Strouse (2003) provide seven core traits of this group. These are:

- Special: Older generations have created the sense in Millennials that they are vitally important to their parents, community, and the nation.
- Sheltered: Spurred on by the tampering of Tylenol, Amber alerts, and highly publicized school shootings, Millennials are the recipients of the most sweeping youth protection movement in American history.
- Optimistic: Full of trust, optimism, and an emotional connectedness to their parents and society at large, Millennials see the future as full of potential and theirs for the taking.

- Team oriented: Cooperative learning, copious team sports, and the media make this the most naturally collaborative generation to date. The Millennial code word is TEAM - Together Everyone Achieves More.
- Conventional: Proud of their own behavior and accepting of adult values, Millennials embrace the rules and conventions of society without much question or rebellion. Grunge is out and Ambercrombie and Fitch is in.
- Pressured: Millennials accept the fact that they must study hard, compete for grades, and take full advantage of the opportunities parents provide. They've grown up with Mom and Dad proudly displaying "My Child is an Honor Student" bumper stickers on the family SUV.
- Achieving: This generation has been bombarded with school accountability and the push for higher standards. Millennials may well become America's best educated generation. (p. 75)

Others have provided similar characteristics of Generation Y. NAS Recruitment

Communication, in a 2006 white paper, lists three characteristics of Generation Y.

They are:

- racially and ethnically diverse;
- extremely independent because of divorce, day care, single parents, latchkey parenting, and the technological revolution that they are growing up alongside; and
- empowered due to overindulgent parents which has given them a sense of security and optimism about the future.

Blashki et al. (2007), quoting Mani and Gerdes (2006) list identifiable traits

of Generation Y such as flexibility, adaptability, spontaneity, and an increased

disposition towards participative behaviors. According to Lovely and Buffum

(2007), "Millennials believe they are special and so do their parents. Schools are

being asked to explain precisely how they will meet the needs of Johnny, since

we know that Johnny is a 'trophy child' who already knows an awful lot" (p. 75).

Behrstock and Clifford (2009) further define Generation Y teachers as

being highly educated and educationally minded, comfortable with technology,

dissatisfied with technologically inferior workplaces, creative and innovative,

collaborative and inclusive, connected to family and community, and highly

motivated. Behrstock and Clifford state that

> Many of these characteristics make Generation Y well suited to become
> the teachers of tomorrow. Given their value for education and their desire
> for a working life that is relevant and has an impact, Generation Y likely
> will be motivated by the many opportunities for teachers to make a
> difference in the lives of their students and society. (p. 2)

In addition, Generation Y teachers are comfortable with technology,

collaboration, and innovation, thus they are equipped to prepare students for the

21st century (Behrstock & Clifford, 2009). In another study, Treuren and

Anderson (2010) list the following attributes of the Generation Y workforce as

such:

- a demand for professional growth and development;
- a desire to reconcile their various life interests through work-life balance;
- need for variety in work, with challenge and change;
- the desire for responsibility and input;
- a wish for reward through income growth and recognition of their contribution; and

- a desire for appropriate workplace leadership. (pp. 50-51)

Clearly, the percentage of Generation Y workers, including teachers, is on the rise, thus educational leaders in today's schools must fully understand the characteristics of these new teachers. In their book *Recruiting and Retaining Generation Y Teachers*, Rebore and Walmsley (2010) state that those teachers born within the Generation Y years have shown the tendencies to:

- Communicate more through technology than in person;
- Value benefits at work;
- Seek career advancement, desire flexibility and higher pay;
- Work in teams and possess high energy;
- Work hard but also enjoy pleasure;
- Can be financially savvy;
- Want constant feedback;
- Work among and with a diverse group of individuals;
- Multitask proficiently; and
- Like change. (p. 5)

In 2011, the American Federation of Teachers and the American Institute of Research published a report titled *Workplaces that Support High-Performing Teaching and Learning: Insights from Generation Y Teachers*. This report illustrates what Generation Y teachers consider to be the components of a high-performing workplace. According to the Generation Y teachers surveyed, their workplaces were conducive to high-performance when:

1. They received frequent feedback on their effectiveness as teachers;
2. They engaged in a high quality evaluation process;

3. They received differentiated and individualized support in the form of professional development;
4. There were multiple opportunities for collaboration; and
5. Instructional technology was current and used efficiently. (Coggshall, Behrstock-Sherratt, & Drill, 2011, p. 3)

The large body of research on Generation Y clearly demonstrates that this group is unique and has specific needs that must be addressed in the workplace. A thorough understanding of the detailed characteristics of Generation Y can assist educational leaders in providing the professional development necessary to retain the best teachers in their schools.

Generation Y Teachers' Use of Technology

In 2001, Marc Prensky wrote his seminal article "Digial Natives, Digital Immigrants." This article helped to define the differences between those who grew up with digital technology and those who did not.

> Today's students - K through college - represent the first generations to grow up with this new technology. They have spent their entire lives surrounded by and using computers, video games, digital music players, video cameras, cell phones, and all the other toys and tools of the digital age. (p. 1)

The children who were students in 2001 when Prensky wrote this article are now Generation Y teachers, applying for teaching jobs or teaching in our schools.

Prensky's thinking has evolved in the last 12 years since he wrote "Digital Natives, Digital Immigrants." In a more recent article titled, "Teaching the Right

Stuff," Prensky (2012) writes about the new skills that students should be

learning in schools today such as writing blog posts and using multimedia, and

that teachers should switch their instructional approaches to teach these tools.

Furthermore, Prensky believes that there is a trio of new skills that teachers need

to teach their students. These are:

- Working and collaborating in online virtual communities;
- making videos; and
- programming, which Prensky calls "the new literacy. (p. 2)

It is worth noting that the first two of these skills are directly related to

communicating with others in some form or fashion.

These ideas, as presented by Prensky, fit very nicely with the writing of

Rebore and Walmsley (2010) who state that Generation Y teachers are

seriously and intensely involved in communicating by electronic means,
which includes cell phones, iPods, text messages, e-mail, and Web sites.
Furthermore, such communication is carried out asynchronously,
meaning that they are not tied to real time in their endeavor to
communicate. (p. 50)

According to Behrstock and Clifford (2009), "One of the most defining features of

Gen Y teachers is their expectation regarding the use of technology" (p. 12).

Additionally, they recommend equipping classrooms with computers for student

use and ensuring that projectors and other technologies are available and

function properly. Finally, and most importantly, "this technology can keep Gen

Y teachers 'plugged in,' which the literature suggests is vital to their well-being"

(Reynolds et al., 2008).

Professional Development for Generation Y Teachers

When considering the unique characteristics of Generation Y teachers as

defined by Rebore and Walmsley (2010), professional development for this group

should be sensitive of their specific needs as new teachers and learners. For

example, Generation Y teachers embrace feedback and change, thus professional

development is desirable for them, and it is an activity to which school systems

must be committed. Professional development must be "productive for the

teachers - it should not be a repeat of something Generation Y teachers just had

in their teacher training. Having choice for teachers would improve the

outcomes of successful professional development programs" (p. 97).

Rebore and Walmsley (2010) explain that currently, the most effective

professional development structure for new teachers is the concept of

professional learning communities. They state that PLCs have an inherent

structure with four major focuses that fits well with the needs of Generation Y

teachers including: (1) learning rather than teaching, (2) collaboration, (3)

viewing all members of the community as learners, and (4) self-accountability (p.

97). The first focus addresses the need to move from a traditional approach to

teaching where the school and teacher take on the responsibility for student

learning to an approach where the students take more ownership in their

learning. Generation Y teachers value communication and collaboration, thus

professional development must address this by providing opportunities for these

new teachers to work together in teams of colleagues. Additionally, providing

some choice and differentiation will help meet their professional learning needs.

This leads to the third focus which includes all teachers, including those who are

the most junior, to be active members in the school's learning community. Thus,

the adults are joining the students as active learners. Finally, with their desire for

responsibility and input, and their aspirations for appropriate workplace

leadership, Generation Y teachers are self-directed employees who are able to

"self-actualize in a manner that contributes to the mission of their respective

schools and school districts" (p. 98).

Collaboration within a learning community also is a theme developed by

Taranto (2011). In his article "New-Teacher Induction 2.0," Taranto studied the

design, implementation, and evaluation of online learning as part of a new

teacher induction program. Through the use of a wiki, an online community was

created through which new teachers, veteran teachers, and administrators

participated in a collaborative online environment which incorporated

embedded videos, audio files, text files, Google Documents, and discussion

boards. The quantitative data generated by Taranto's study indicated "a strong

acceptance of the online community as an effective component of a new-teacher

induction program" (p. 13). Additionally, 100% of the educators involved in this

study agreed that the tool (the wiki) was helpful for aiding instruction, seeking

out support, and facilitating reflection. The implications for Generation Y

teachers are clear. "As more and more people who have experience and

preferences in using digital tools enter the teaching field, the preferred methods

of forming professional learning communities will be in the form of new

information and communication technologies" (p. 13).

By creating an opportunity where new teachers can share common

experiences, seek support from experienced educators, and focus on professional

development, school districts have the opportunity to promote teacher self-

efficacy (Hur & Brush, 2009). Hur and Brush studied teacher participation in

online communities. Their study indicated that that there were five reasons why

teachers wanted to participate in online communities of teachers: (a) sharing

emotions, (b) utilizing the advantages of online environments, (c) combating

teacher isolation, (d) exploring ideas, and (e) experiencing a sense of

camaraderie. For Generation Y teachers who thrive on communicating through

technology, who can multi-task proficiently, and who like to collaborate with others, the concept of online professional development might be a viable option as part of new teacher induction program (pp. 290-291).

Building on the characteristics of Generation Y (i.e., thrive on challenges, self-confident, seek opportunities) and the most important factors for attracting and retaining Generation Y teachers (work-life balance, collaborative environment, opportunities for advancement, inclusive administrators, and ongoing career development, Graham (2009) identifies the staff development needs for this group. Providers of professional development for Generation Y teachers should include a shift from instructor-led, content-based training to a more self-directed process. "The emphasis is now on individuals taking responsibility for designing and pursuing their learning to meet their own personal and professional goals within an organizational environment that supports this learning" (p. 178, quoting from Staron, Jasinski, & Weatherly, 2006).

The Use of Instructional Technology in Schools

Why Use Technology in Schools?

"Since the early 1990s, schools, districts, and the federal government have invested heavily in instructional technology (IT). Teacher and student access to technology in schools has improved dramatically" (Miranda & Russell, 2011, p.

301). Thus, the use of technology in schools has increased dramatically.

According to Wells and Lewis (2006), all public schools are connected to the

Internet, with 97% connected via high speed connection. The student-to-

computer ratio dropped from 4.4 in 2003 to 3.8 in 2005, and hundreds of schools

and districts are experimenting with or have put in place one-to-one laptop

programs that provide each student with their own laptop. Yet, evidence

suggests that investments in IT may not have translated into widespread use in

schools (Cuban, 2001; Russell, Bebell, O'Dwyer, & Miranda, 2003a; Russell,

Bebell, O'Dwyer, & O'Connor, 2003b; Wells & Lewis, 2006). This begs the

question "Why use technology in today's schools?"

Pence and McIntosh (2011) write, "Of course, the critical factor in

education is not the tools but the learning space. Technology is acting as a

catalyst, forcing a reexamination of traditional practices" (p. 177). The idea that

educators must change their paradigm for teaching in a technological age was

presented by McCain and Jukes in 2001. In their book, *Windows on the Future:*

Education in the Age of Technology, these authors examined the paradigm shifts

taking place in classrooms due to the infusion of technology. They made some

bold predictions in 2001 regarding the state of education in the future. For

example, they wrote that education in the future would not be confined to a

single place or a specific time, nor would it be confined to a single person or even to "human teachers." Continuing, McCain and Jukes predicted that education would not be confined to paper-based information nor would it be confined to memorization and linear learning. Today, with the pervasive use of collaborative tools and the Internet, McCain and Jukes's predictions certainly ring true. Twelve years ago these authors stated that "Technology is not important in and of itself. It is what the technology can do to make you more productive in your daily tasks that is important" (p. 103). Continuing, they wrote that "For education, the central issue is about how technology can be organized around student learning, not how student learning can be organized around technology. We need to see technology as helping students think and communicate effectively" (p. 103).

What McCain and Jukes were referring to in 2001 in their book has now been transformed into what has been named the "21st century skills." The Partnership for 21st Century Skills, a national organization that advocates for 21st century readiness for every student, has created a framework for 21st century learning. This framework "presents a holistic view of 21st century teaching and learning that combines a discrete focus on 21st century student outcomes (a blending of specific skills, content knowledge, expertise and

literacies) with innovative support systems to help students master the multi-

dimensional abilities required of them in the 21st century" (www.p21.org).

According to The Partnership for 21st Century Skills, the outcomes for 21st

century instruction are:

1. Core Subjects (the 3 Rs) and 21st Century Themes
    - Global Awareness
    - Financial and Business Literacy
    - Civic Literacy
    - Health Literacy
    - Environmental Literacy

2. Learning and Innovation Skills
    - Creativity and Innovation
    - Critical Thinking and Problem Solving
    - Communication and Collaboration

3. Information, Media and Technology Skills
    - Information Literacy
    - Media Literacy
    - ICT Literacy

4. Life and Career Skills

In their book *21st Century Skills: Rethinking How Students Learn*, Bellanca

and Brandt (2010) provide "a compilation of reflections on the possibilities for

21st century learning by some of the most thoughtful educational minds in the

United States" (p. xiii). The editors present sixteen points of view regarding the

way students should be learning and teachers should be teaching in 21st century

schools. In one chapter, Douglas Fisher and Nancy Frey explain how functions,

not tools, should guide instructional technology. Teachers should focus on the

"functions of the technology rather than the tools or forms of technology" (p.

226). Instead of trying to keep up with such tools as Twitter™, podcasting,

Facebook™, GarageBand™, wikis, blogs, and RSS feeds, teachers should

understand the functions for which these tools were created. Fisher and Frey list

the following functions as those that help in teaching 21ST century skills:

- Communicating;
- Listening;
- Networking;
- Presenting;
- Searching;
- Sharing; and
- Storing.

The idea is to use these functions to move away from an emphasis on the device

and toward a sustained focus on the purposes of learning.

Cheryl Lemke, in her chapter titled "Innovation through Technology,"

describes three innovations that are "rippling through our society that must

inform America's new vision for 21st century learning" (p. 246). According to

Lemke, Innovation One is "Visualization" where people learn better when

combining visuals with text and sound rather than with each of these processes

working in isolation. "Students engaged in learning that incorporates high-

quality multimodal designs outperform, on average, students who learn using traditional approaches with single modes" (p. 249). Innovation Two is "Democratization of Knowledge." The Internet's prevalent use in schools has opened up new opportunities for people to learn outside of the brick and mortar of the school building. Educators can now actively connect to student learning done beyond the school in order to bring relevancy and student interests to the formal work done in classrooms. "The democratization of knowledge provides the opportunity for lifelong individual and group learning" (p. 263). Innovation Three is "Participatory Learning." The tools of Web 2.0 such as Twitter™, blogs, wikis, Flickr™, RSS feeds, Facebook™, and YouTube™ have provided educators new modalities for students to engage in teaming, collaboration, and participatory learning. Students should be expected to participate in virtual communities as well as in their classroom communities.

Technology integration is an instruction-oriented practice that relies on various technology resources to achieve improved student learning outcomes. Districts should aim for technology integration that is routine and transparent, accessible, and supportive of curricular goals. When these factors are present, technology tools become "a seamless part of the learning process" (Hanover Research, 2013, p. 5). According to Hanover Research, that is the purpose for the

use of instructional technology. Furthermore, 74% of teachers cite the main

benefits of educational technology as motivating students to learn, reinforcing

and expanding of content, and responding to a variety of learning (Hanover

Research, 2013).

To What End or Purpose?

The purpose of instructional technology is to increase student learning in

"technology-enhanced, learner-centered classrooms" (An & Reigeluth, 2011, p.

54). These authors continue,

> The learner-centered model focuses on developing real-life skills, such as
> collaboration, higher-order thinking, and problem-solving skills, and
> better meets the complex needs of the information age. The learner-
> centered model also addresses the personal domain, which is often
> ignored in conventional schools and classrooms, and it results in increased
> student motivation and learning. In learner-centered classrooms, students
> feel accepted and supported, feel ownership over their learning, and are
> more likely to be involved and willing to learn (Bransford et al., 2000;
> Cornelius-White & Harbaugh, 2009; McCombs & Whisler, 1997; Reigeluth,
> 1994). (p. 54)

This concept is supported by the International Society for Technology in

Education (ISTE), an association for educators and education leaders engaged in

improving learning and teaching by advancing the effective use of technology in

PK–12 and teacher education. The ISTE has developed clear-cut standards for

learning, leading and teaching in the digital age. These are the National

Education Technology Standards (NETS), which have been developed for

students (NETS-S), for teachers (NETS-T), for administrators (NETS-A), and for

coaches (NETS-C).

> According to the ISTE website, the NETS-S
>
> are the standards for evaluating the skills and knowledge students need to learn effectively and live productively in an increasingly global and digital world. Simply being able to use technology is no longer enough. Today's students need to be able to use technology to analyze, learn, and explore. Digital age skills are vital for preparing students to work, live, and contribute to the social and civic fabric of their communities. (http://www.iste.org/standards/nets-for-students)

The NETS-S are comprised of six standards:

1. Creativity and Innovation;
2. Communication and Collaboration;
3. Research and Information Fluency;
4. Critical Thinking, Problem Solving, and Decision Making;
5. Digital Citizenship; and
6. Technology Operations and Concepts.

The connections to An and Reigeluth's (2011) work on the learner-centered

model are that the NETS-S must have certain essential conditions to effectively

leverage technology for learning. ISTE defines student-centered learning,

empowered leaders, and equitable access as three of the 14 essential conditions

for all of the NETS standards. These three are directly related to the needs of

students when using technology in classrooms.

How the Nebraska RETC Rubric Relates

The Nebraska Rubric of Essential Conditions (RETC) (2006) will be used to develop the instructional technology-related interview and survey questions for this case study.

> The RETC provides a framework identifying a set of essential conditions and provides corresponding indicators of progress in meeting those conditions. It supports the planning process by allowing schools to conduct a systematic assessment of their progress in integrating technology against a standard established by a statewide group of educational technology leaders. (Steckelberg et al., 2008, p. 82)

In their article, Steckelberg et al. described the development of the RETC as well as the rubric's reliability when used to determine the technology needs when adopting and integrating technology use in classrooms. This was a two year study completed during 2005 and 2006.

> Data from the initial two years of implementation indicate that the rubric provides a useful framework and reliable Web-based method for the self-assessment of essential conditions necessary for integrating technology in K-12 schools. The RETC provides both a framework of conditions and a descriptive categorization of levels of progress in achieving these conditions. (pp. 88-89)

How the Illinois Standards for New Teacher Induction Relate

The Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs (2008) will be used to assess the new teacher induction program in use by the school district being studied in this research project.

These standards, developed by the Illinois State Teacher Certification Board in

December (2008) were designed to help educational leaders reflect on the best

practices and effective structures necessary to design and deliver a high quality,

effective new teacher induction program. For this study, these standards will

assist the researcher in assessing whether this school district is:

- providing a system for teacher induction that provides an effective transition into the first and second years of teaching;
- improving student performance through improved professional development;
- enabling beginning teachers to be effective in teaching a diverse student population;
- identifying those beginning teachers who need additional assistance to succeed in the classroom; and
- establishing an effective, cohesive formative assessment program.

The following graphic illustrates how the Nebraska rubric and the Illinois

New Teacher Induction Standards are at the center of these data collected and

analyzed in a triangular method. All three areas of data collection will focus

directly on both the rubric and the list of standards.
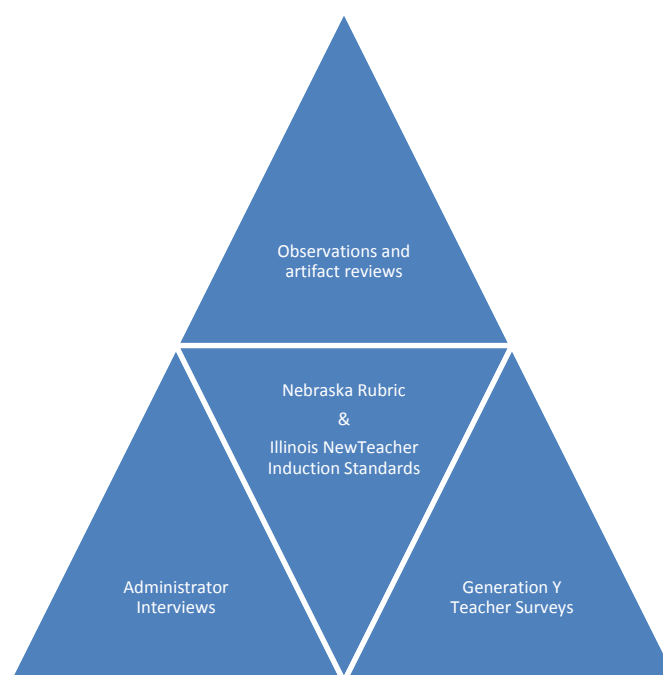
Figure 2. Data Triangulation

Summary

This literature review focused on three distinct areas. First, to ebb the flow of new teachers leaving the profession, school district administrators must place a stronger emphasis on their new teacher induction programs. The literature is clear that such programs, if done over the course of two or more years, will improve teaching and raise student achievement. A clear need for high quality new teacher induction is in evidence, and specific components of new teacher induction programs were identified. Additionally, the research is clear that, although many states have promulgated policies regarding new teacher induction, most states do not support individual schools and districts

with the funding necessary to provide high-quality new teacher professional development.

Second, this literature review identified the characteristics of those considered Generation Y (born between 1977 and 1995). This distinct generation, also called Millennials, represents many of the newest members of the teaching profession. They bring specific characteristics and skills with them into the classroom including an innate use of technology in their lives. Generation Y teachers are digital natives who require some specialized professional development at the start of their careers.

Finally, this literature review discussed why schools should be incorporating instructional technology (IT) in classrooms. The evidence suggests that IT has risen dramatically over the last few years in K-12 schools, and that technology is a vehicle for which teachers should be using to engage their students. Furthermore, a set of distinct 21st century skills has been developed with the purpose of increasing learner-centered classrooms and developing self-directed students, and these skills should be taught in schools in order to prepare students for work in the 21st century.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this dissertation was to identify and then deeply study one

school district that has been considered exemplary in the use of instructional

technology for planning, instruction, and assessment, to determine how this

school district trains its Generation Y teachers in the use of technology, and to

make recommendations to educational leaders as to the best plans for teacher

induction in the area of instructional technology.

A qualitative case study methodology was used to collect and analyze

data to answer the following research questions:

1. What constitutes a high quality new teacher induction program for

    Generation Y teachers in order for them to appropriately utilize

    technology in their planning, instruction, and assessment?

2. What recommendations should be made for all school districts in order

    for them to properly train their new Generation Y teachers in the best

77

uses of instructional technology for planning, instruction, and

assessment?

3. What are the implications for school leaders?

This chapter will detail the methodology used to answer these research

questions. In addition, the chapter will describe the participating school district,

the data sources, the procedures for collecting data, an analysis of these data

along with generalizations, and strengths and limitations of the study.

Case Study Research Methodology and Design

School districts are complex systems of individual stakeholders working

toward providing the best education for their students. According to Davis et al.

(2012), "As educators and educational researchers, we find a particular resonance

with the notion that a complex system is a learning system" (p. 375). Merriam

(2009) states that "A case study is an in-depth description and analysis of a

bounded system" (p. 40). By bounded system, Merriam is referring to a single

unit or entity where there are boundaries to the study. For example, studying

the phenomenon involving a single person, a group, an institution, or a policy

would be considered a bounded study.

This study focused on one specific institution, namely an elementary

school district in Illinois. Yin (2009) defines a case study as "an empirical inquiry

that investigates a contemporary phenomenon within its real-life context,

especially when the boundaries between phenomenon and context are not clearly

evident" (p. 18). Therefore, as Yin continues, "You would use the case study

method because you wanted to understand a real-life phenomenon in depth, but

such understanding encompassed important contextual conditions - because

they were highly pertinent to your phenomenon of study" (p. 18). Based on these

definitions, in an educational setting, a case study could be about one particular

program, group of teachers, classroom of learners, or school district.

Case study also allows the researcher to obtain in-depth data about a

small number of cases and compare the cases (Creswell, 2007).   Cases are

bounded by time and activity, and researchers collect detailed information using

a variety of data collection procedures over a sustained period of time (Stake,

1995).

This case study provided an in depth analysis of generation Y teachers in

one suburban school district through the lenses of the definition of Generation Y,

an instructional technology rubric, and a new teacher induction rubric. The

school district chosen for this case study was one that has exemplified excellence

in the area of instructional technology. This district has received the 1998

National School Board Association's Institute for Transfer of Technology to

Education (NSBA/ITTE) Video Salute for creating improved teaching and learning environments using technology, the first Reed Hundt Award from the National School Board Association for excellence in the effective use of technology in 1998, the 2003 Malcolm Baldridge National Quality Award, and the 2004 Technology Leadership Network Trailblazer Award.

The study of this school district was in depth through the collection of data from numerous sources including Generation Y teachers, school district administrators, observations, and artifacts. Individual interviews, surveys, observations, and document reviews were conducted to reveal the human experiences of Generation Y teachers and whether they received a high quality induction program in order for them to meaningfully embed technology into their instruction.

With the lenses of this proposed study identified and focused on a specific set of teachers and rubrics, the need for a research methodology that acknowledges the importance of context was crucial. Case study research has been ideal because it allows the study to focus on the holistic and meaningful characteristics of the school district site within which the teachers work (Yin, 2009). Furthermore, the case study inquiry

- copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result;
- relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result;
- benefits from the prior development of theoretical propositions to guide data collection and analysis. (Yin, 2009, p. 18)

This proposed case study incorporated multiple sources of data including surveys, interviews, artifact reviews, and observations to paint the best picture possible of new teacher induction as it related to instructional technology.

Site Selection and Participants

The site and participants for this case study were chosen using purposive, or purposeful, sampling where the researcher selects information-rich cases for in-depth study through which one can learn a great deal about issues of importance that are central to the purpose of the inquiry (Merriam, 2009). When using purposeful sampling, one "creates a list of the attributes essential" to the study, and then "proceeds to find the unit matching the list" (LeCompte & Preissle, 1993, p. 70).

For this study, the essential attribute in selecting a school district in which to study was its exemplary use of technology as defined by its receipt of the 1998 National School Board Association's Institute for Transfer of Technology to Education (NSBA/ITTE) Video Salute for creating improved teaching and

learning environments using technology, its receipt of the first Reed Hundt

Award from the National School Board Association for excellence in the effective

use of technology in 1998, its receipt of the 2003 Malcolm Baldridge National

Quality Award, and its receipt of the 2004 Technology Leadership Network

Trailblazer Award.

More recently, this district has received the following accolades from the

educational community.

- A seventh grade reading/language arts teacher was the 2013 recipient of the Illinois Computing Educators (ICE) "Educator of the Year Award" for his work embedding technology into his instruction.
- Since 2011, 13 teachers have won the "Those Who Excel" award from the Illinois State Board of Education, including a team of two teachers who won for their work with assistive technology.
- Nine of the district's 20 schools have been recognized by the United States Department of Education as Blue Ribbon Schools of Excellence.
- Since 2011, 20 teachers have earned their National Board Certification.
- Motorola Solutions Foundation has awarded nearly $110,000 to this district in grant money to assist students who wish to further pursue their interests in science, technology, engineering, and mathematics.
- The district's educational foundation awarded the schools with funds to purchase iPads in May 2012.

Furthermore, in 2012 this district launched a STEM (science, technology,

engineering, and mathematics) program to develop 21st century skills among all

of its middle school students.

After an extensive Internet search of national and state technology

awards, this researcher was able to find only two other awards given to Illinois

educators or school districts since 2004.

- In 2006, a high school district north of Chicago won the Sylvia Charp Award for District Innovation in Technology.
- In 2007, an elementary school teacher in a northwest suburb of Chicago was awarded the International Society for Technology in Education (ISTE) Outstanding Leader Award.

Thus, the chosen school district was singled out most recently in Illinois as one

that is exemplary in the area of instructional technology. Finally, aside from

winning some of the most recent technology awards in the State of Illinois, this

district was large enough to provide an excellent sampling of Generation Y

teachers and district administrators from which to survey and interview.

"Snowball, chain, or network sampling is perhaps the most common form

of purposeful sampling. This strategy involves locating a few key participants

who easily meet the criteria you have established for participation in the study"

(Merriam, 2009, p. 79). The essence of this strategy revolves around asking one

group of people who then lead the researcher to other groups of people in which

to study. Purposeful sampling is common in qualitative research and involves

selecting sites and participants that will help the researcher address the focus of

the research study (Creswell, 2009; Krathwohl, 2009). Chained-referral sampling,

which also is termed snowball or referential sampling, involves seeking the names of sites or individuals from others who may have knowledge of those meeting the criteria established in the study (Krathwohl, 2009).

To find a school district that meets the criterion of exemplary in the area of instructional technology, this researcher contacted the technology directors working in the Regional Offices of Education (ROE) that surround the City of Chicago. These directors were be contacted via email (see Appendix A). This researcher then studied the school districts described as exemplary by the ROE technology coordinators, looking for those districts that have earned distinct honors and/or accolades. Although only one school district was studied for this case, a more comprehensive list of districts was created to be used as a back up in the event that the chosen district was not be interested in participating in this study.

There were two distinct groups of participants within this case research. The first group was teachers whose year of birth places them within the boundaries of Generation Y. These are teachers who were born between the late 1970s and the mid 1990s (Rebore & Walmsley, 2010). These teachers were identified by the district's assistant superintendent for curriculum and instruction and the district's new teacher induction facilitator. The second group

of participants chosen for this study was the district administrators. Included in

this group were the superintendent, assistant superintendents, principals, and

district-level directors and/or coordinators. The administrators chosen were

those who are highly involved in the hiring process, the new teacher induction

program, and the supervision and evaluation of new teachers.

Data Sources and Data Collection Procedures

Multiple sources of data were used in this study. According to Yin (2009),

"A major strength of case study data collection is the opportunity to use many

different sources of evidence" (pp. 114-115). Additionally, using multiple sources

of data requires the development of converging lines of inquiry, also known as

the process of triangulation and corroboration. The objective for collecting

information from multiple sources should be aimed at corroborating the same

fact or phenomenon (Yin, 2009). Finally, data triangulation reduces the potential

problems of construct validity because "the multiple sources of evidence

essentially provide multiple measures of the same phenomenon (pp. 116-117).

These data sources used in this study were as follows:

- Documents (district level)
- Timeline used for new teacher induction across the school year (district level)
- A survey of Generation Y teachers who were hired between 2010 and 2013 (classroom level)

- Interviews of school-based administrators (building level)
- Interviews of district administrators (district level)
- Observations of new teacher induction and mentor sessions.

An *Electronic Survey* was administered to all participating Generation Y

teachers in the selected school district. This survey was designed to provide a

description of trends, attitudes, or opinions these teachers have regarding their

use of instructional technology in the classroom. In addition, the survey assessed

the level of professional development they received from the district to build

upon prior knowledge received from pre-service teacher preparation courses and

to support their use of technology in the classroom. The survey was created

using SurveyMonkey™ which collected the teachers' responses in a way which

can be used for sorting, organizing, and filtering these data.

The survey questions were based on the following criteria. First, there

was a need to collect demographic information on each teacher including

- The range of years in which the teachers were born;
- The number of years the teachers have taught in the district (1-4 years);
- The gender of each teacher;
- The highest degrees earned by the teachers; and
- The grade levels taught by the teachers.

Second, specific survey questions were developed based on the Rubric of

Essential Technology Conditions (RETC) which was created for the Nebraska

PreK through grade 12 schools (see Appendix B). This rubric is divided into five

sections. Each section has between three and seven key areas. The sections and

key area were coded as follows:

1. Technology Administration and Support
    A. Vision planning and policy
    B. Technology Support
    C. Instructional technology staffing
    D. Budget
    E. Electronic data and support
    F. Funding

2. Technology Capacity
    A. Student technology equipment access
    B. Teacher technology equipment access
    C. Internet access
    D. Video capacity
    E. Distance learning; Conditions and capabilities
    F. LAN/WAN
    G. Curriculum-based tools

3. Educator Competencies and Professional Development
    A. Educator use of technology
    B. Leadership
    C. Professional development
    D. Models of professional development
    E. Effective use of Electronic data support and system
    F. Content of technology training

4. Learners and Learning
    A. Student use of technology
    B. Technology integration
    C. Available technology curriculum
    D. Community connection
    E. Demonstrating effective use of technology in learning

5. Accountability
    A. Student technology essential learnings
    B. Administrator technology competency
    C. Teacher technology competency

Data from 38 survey questions was collected and analyzed (see Appendix C).

Semi-structured focused interviews were conducted with the district

administrators throughout the school district. DeMarrais (2004) defines an

interview as "a process in which a researcher and participant engage in a

conversation focused on questions related to a research study" (p. 55). Yin (2009)

considers interviewing one of the most important sources of case study

information. In addition, he writes that "interviews will be guided conversations

rather than structured queries" (p. 106). For this specific case study, interview

questions will be developed based on the Nebraska RETC and coded similarly to

the Generation Y teacher survey questions.

The purpose of these interviews (see Appendix D for the interview

questions) was to explore the beliefs, experiences, knowledge, and points of view

of district administrators as related to the preparation of non-tenured Generation

Y teachers and their use of instructional technology for planning, instruction, and

assessment during the teachers' first few years of teaching. The semi-structured

nature of these interviews required the researcher to develop Level 1 questions

that were asked directly of the interviewee and that were based on the Level 2

questions which were the overarching questions guiding this research study

(Yin, 2009). The Level 1 questions were flexibly worded so the "interview is a

mix of more and less structured questions" (Merriam, 2009, p. 90) thus allowing

for some discussion between interviewer and interviewee. The interviews were

conducted over the telephone and took approximately 20 minutes. The

interviews were recorded and then transcribed by an internet service called

Rev.com (see Appendix E for the Letter of Consent).

On site observations of two new teacher induction sessions and one mentor

session took place during the course of this research study. Direct observations

were made that provided an opportunity to study the phenomena of new teacher

induction and mentor meetings as they pertained to technology planning,

instruction, and assessment in their natural settings (Yin, 2009). "Qualitative

observations are those in which the researcher takes field notes on the behavior

and activities of individuals at the research site" (Creswell, 2009, p. 181). In

addition, an observational protocol should be included to guide the researcher's

behavior which includes descriptive notes (Creswell, 2009).

For the observations, a T-Chart template was created to record

information. As described by Creswell (2009), this was a

single page with a dividing line down the middle to separate *descriptive notes* (portraits of the participants, a reconstruction of dialogue, a description of the physical setting, accounts of particular events, or activities) from *reflective notes* (the researcher's personal thoughts such as 'speculation, feelings, problems, ideas, hunches, impressions, and prejudices' Bogdan & Bilken, 1992, p. 121). (pp. 181-182)

Artifacts of school district documents related to instructional technology use and new teacher induction processes were collected from the school district. Creswell (2009) indicated that public and private documents may be valuable data sources because they represent data that are a thoughtful creation of participants in their own words. Such documents as new teacher induction meeting agendas and related new teacher induction curricular maps, curriculum documents pertaining to the use of instructional technology may be used to support and/or assist in answering the research questions posed in this study. To collect these artifacts, the researcher formally requested copies from the district administration and the researcher searched the school district website.

Data Collection Procedures and Proposed Timeline

These data were collected over a four month period with the goal to start collecting data at the start of the 2013-14 school year. Table 4 provides a timeline detailing the sequence of data collection events. The events were intentionally spread out to allow time for the ongoing analysis of data.

Table 4

Data Collection Timeline

Activity	Data Type	Weeks in timeline	Anticipated time required	Location
Discuss research project with superintendent	N/A	1-4 Spring, 2013	1 hour	Superintendent's office or on phone
Discuss research project with assistant superintendent for C & I	N/A	4-8 Summer 2013	1-2 hours	Assistant superintendent's office or on phone
Discuss research project with director of human resources	N/A	4-8 Summer 2013	1-2 hours	Director of human resources's office or on phone
Scan district website	Artifacts	8 Fall 2013	6-8 hours	N/A
Request list of non-tenured Generation Y teachers	Artifacts	9 Fall 2013	2 hours	N/A
Request and review related artifacts	Artifacts	10 Fall 2013	10-12 hours	N/A
Observe new teacher induction meetings	Observation	8-18 Fall, Winter 2013	4-8 hours	District meeting rooms
Interview district administrators	Interview	10-15 Fall, 2013	10-15 hours	Each administrator's office or on phone
Survey generation Y teachers	Survey	15-20 November, 2013	N/A	Online

Using data generated by the technology directors of the Regional Offices

of Education that surround the City of Chicago, a list of school districts that were

considered exemplary in the use of instructional technology was created. The

district at the top of the list was contacted first to ascertain interest in

participating in this study. To do that, the researcher started with the

superintendent of schools (see Appendix H for telephone protocol). Once the

district superintendent agreed and signed the letter of cooperation (see

Appendix E), the assistant superintendent for curriculum and instruction was

contacted to begin the artifact collection process. This administrator also was

asked to sign a letter of participation (see Appendix F).

In addition, the new teacher induction facilitator was contacted. This

administrator also signed a letter of participation (see Appendix F). The

researcher and the new teacher induction facilitator discussed the use of the

district's Generation Y teachers for this study, and a criterion for this list was

developed which was based on the birth years for the teachers that fall between

the late 1970s and the mid 1990s.

Once letters of cooperation were signed, the district's website was

explored for relevant documentation including, but not limited to, instructional

technology available to teachers and students in the classrooms, curriculum

documents that identify uses of technology, and new teacher induction

procedures. Pertinent documents related to current and previous new teacher

induction processes were requested, collected, and organized by the researcher.

Next, the researcher requested to attend one or more new teacher

induction meetings throughout the year, and he viewed the new teacher meeting

agendas in advance in order to ensure that these observations were related to

instructional technology. A T-chart was used to collect observations made at

these meetings. The researcher attended two new teacher meetings and one

mentor meeting during the school year. The focus was on the continued

inservicing of new teachers in the use of instructional technologies.

For the administrator interviews, the researcher utilized a semi-structured

interview process. The list of district administrators included the

superintendent, assistant superintendents, principals, and district-level directors

and/or coordinators. Demographic information was collected on each

administrator being interviewed. Table 5 provides the vehicle for collecting

administrator demographic information.

Table 5

Administrator Demographic Information

Current Position	
Years in Education	
Years in this position	
Educational Background	Masters
	Masters+
	PhD/EdD

Each specific administrator question was related to the Rubric of Essential

Technology Conditions (RETC), and the questions were coded using the same

coding system used for the teacher survey (see Appendix D). In addition, room

for discussion was allowed in order to keep the interview process semi-

structured. The interviews took place over the telephone and were recorded on

an iPad with the participants' permission.

The final piece of data collection was the Generation Y teacher survey.

The assistant superintendent and the new teacher induction facilitator created a

list of all Generation Y teachers. This list included their email addresses because

email was used to communicate with these teachers. Each Generation Y teacher

received an email describing the case study, an explanation of confidentiality,

and a second a link to the survey (created on SurveyMonkey.com). The teachers

were given approximately four weeks to complete the survey. After two weeks

of receiving the survey email, the teachers were sent a second reminder email

with the survey link.

Data Analysis Procedures

Simply stated, "data analysis is the process of making sense of these data.

And making sense out of data involves consolidating, reducing, and interpreting

what people have said and what the researcher has seen and read - it is the

process of making meaning" (Merriam, 2009, pp. 175-176). In this process, data

analysis is used to answer one's research questions. Merriam further explains

that "data analysis begins by identifying segments in your data set that are

responsive to your research questions" (p. 176). A segment of data can also be

called a "unit of data," a term Merriam uses interchangeably. According to

Lincoln and Guba (1985) a unit of data must meet two criteria:

1. It should be heuristic - that is, the unit should reveal information
   relevant to the study and stimulate the reader to think beyond the
   particular bit of information; and
2. The unit should be the smallest piece of information about something
   that can stand by itself - that is it must be interpretable in the absence
   of any additional information other than a broad understanding of the
   context in which the inquiry is carried out. (p. 345)

The data analysis strategy used in this research study was what Yin (2009)

calls "Relying on theoretical propositions" (p. 130). This is a preferred strategy

because it follows the theoretical propositions that lead to a specific case study

which in turn leads to set a of research questions, reviews of the literature, and

possibly new hypotheses or propositions. In this particular research study, the

proposition that an effective new teacher induction program will assist

Generation Y teachers to use their innate technological skills to embed

technology into their instruction and the curriculum has led to the proposed

research questions as outlined in Chapters I and III of this study.

Creswell (2009) outlines a six step process for analyzing qualitative data:

1. Organize and prepare data for analysis;
2. Read through all these data to develop a general sense of the information;
3. Begin a detailed analysis of these data through the process of coding;
4. Use the coding process to generate descriptions of "the people, places, or events in a setting" (p. 189);
5. Determine how descriptions and themes will be represented; and
6. Interpret these data.

These steps, according to Creswell (2009), engage the researcher in the study of

qualitative data from the specific to the general, and it involves multiple layers of

analysis. These steps are "interactive in practice; the various stages are

interrelated and not always visited in the order presented (p. 185).

Organizing these data and reading through these data - The first step in

organizing these data was to sort and categorize all artifacts and documents into

groups such as New Teacher Induction, Technology Purchasing, and Technology

Use. A second step was to sort and filter the teacher survey data which will be

collected via SurveyMonkey™. Third, the recorded administrator interviews

were transcribed using a professional service (see Appendix J for Confidentiality

Agreement for Transcription Services). Observation field notes from the T-charts

were typed to make for easier reading. Creswell (2009) explains the importance

of reading through all of these data first to gain a general sense of the

information and to reflect on the overall meanings. General notations were

written in the margins to start the process of developing initial impressions, tone,

and emerging ideas which should be captured during this stage.

Process of coding these data and using these data to generate descriptions -

"Coding is the process of organizing the material into chunks or segments of text

before bringing meaning to information" (Rossman & Rallis, as cited in Creswell,

2009, p. 186). Miles and Huberman (1994) describe coding as a method to

analyze data. "To review a set of field notes, transcribed or synthesized, and to

dissect them meaningfully, while keeping the relations between the parts intact,

is the stuff of analysis" (p. 56). Continuing, Miles and Huberman write that

"Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study" (p. 56).

Miles and Huberman (1994) present three approaches to coding:

1. predefined;
2. accounting-scheme; and
3. postdefined.

For this case study, the researcher utilized the predefined approach. Incidentally, this is the approach that is "preferred" by Miles and Huberman. For this approach, the researcher created a provisional "start list" of codes prior to conducting the field work. Miles and Huberman state that the "list comes from the conceptual framework, list of research questions, hypothesis, problem areas, and/or key variables that the researcher brings to the study" (p. 58).

This researcher used two different conceptual frameworks in this study. The first framework was the Nebraska Rubric of Essential Technology Conditions (RETC). Based on this framework, codes were established for each of the five sections and for all of the identified key areas. Table 6 lists the codes developed from the RETC.

Table 6

RETC List of Codes

Key Area Codes	RETC Section
1A-F	Technology Administration and Support
2A-G	Technology Capacity
3A-F	Educator Competencies and Professional Development
4A-E	Learners and Learning
5A-C	Accountability

The second conceptual framework was the *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs* (2008). This framework was divided into nine distinct areas, or standards, that will be used to evaluate the quality and effectiveness of a school district's new teacher induction program. Data collected relative to new teacher induction was coded based on each standard. Table 7 lists the codes developed from this Illinois document.

Table 7

List of Codes - Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs

Codes	Standards
ST-1	Induction Program Leadership, Administration, and Support
ST-2	Program Goals and Design
ST-3	Resources
ST-4	Site Administrator Roles and Responsibilities
ST-5	Mentor Selection and Assignment
ST-6	Mentor Professional Development
ST-7	Development of Beginning Teacher Practice
ST-8	Formative Assessment
ST-9	Program Evaluation

All coded data were merged into one master list of concepts based on observable patterns or regularities. From this master list, themed categories were developed and named based on four guidelines developed by Guba and Lincoln (1981). These four guidelines are:

1. The number of people who mention something or the frequency with which an incident arises in these data indicates an important dimension.

2. The audience may determine what is important - that is, some categories will appear to various audiences as more or less credible.
3. Some categories will stand out because of their uniqueness and should be retained.
4. Certain categories may reveal "areas of inquiry not otherwise recognized" or "provide a unique leverage on an otherwise common problem." (p. 95)

Patton (2002) recommends that the transcribed interviews and field notes be read and notated several times to ensure they have been indexed completely. This will assist the researcher in developing the themed categories.

Determine how descriptions and themes will be represented and interpret these data - Data triangulation was used to represent and interpret the multiple sources of data that will be collected. "Triangulation using multiple sources of data means comparing and cross-checking data collected through observations at different times or in different places, or interview data collected from people with different perspectives or from follow-up interviews with the same people" (Merriam, 2009, p. 216).

For this case study, three sources of data were used:

1. Administrator interviews;
2. Generation Y teacher surveys;
3. Observations and artifact reviews (see Figure 3).
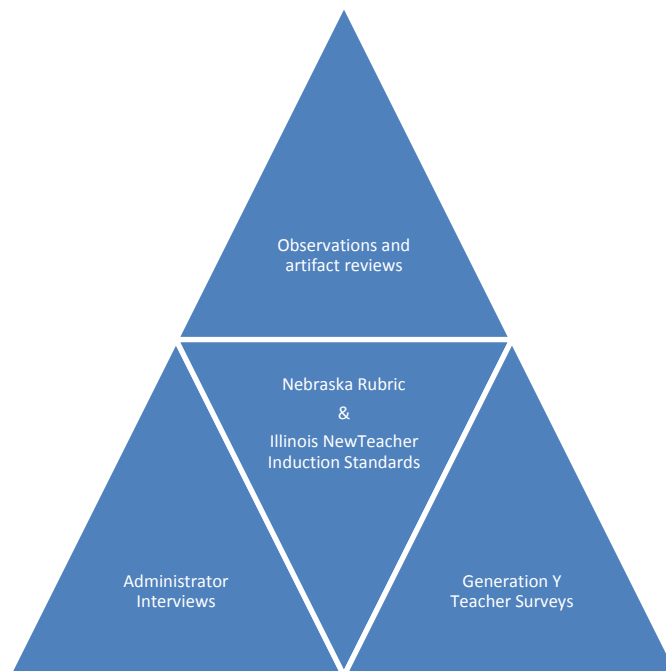
Figure 3. Data Triangulation

Significance of the Study

This study is significant for educational leaders in that it will identify the best technology induction processes for Generation Y teachers who are first entering the profession so they can appropriately embed technology into their planning, instruction, and assessment and remain in the field of education for many years to come. New teacher induction typically is the first professional development activity a school district will provide for its newly hired teachers. An organized, systematic approach is necessary in order to train new teachers to use the school district's existing technology and incorporate the district's adopted

technology plan. The majority of new teachers entering the profession from

traditional education programs are around the age of 22 thus making them

Generation Y teachers 1990s (Rebore & Walmsley, 2010).

Rebore and Walmsley (2010) state that

Since Generation Y embraces feedback and change, professional
development is not only desirable but also an activity to which each
school system must commit human and fiscal resources if it is to maintain
a skilled and knowledgeable staff. However, professional development
must be productive for the teachers - it should not be a repeat of
something Generation Y teachers just had in their teaching training. (pp.
96-97)

By identifying the components of effective new teacher induction in the

area of technology, this study can assist school leaders in developing similar

programs for use in their districts and with their new teachers. An effective new

teacher induction program does matter, and it has meaningful and lasting effects

on teacher quality and retention (Kelley, 2004).

Limitations

While this study attempts to gather data on an effective technology

induction program for new teachers, there may be limitations to this work. First,

the study of one school district may be limiting in scope. A larger sampling of

school districts could reveal more information regarding new teacher induction

programs and their focus on instructional technology. A second limitation may

be that the researcher will find school districts or individuals who are not willing

to participate in such a study. With the focus on a district that is considered

exemplary in the use of technology in the classroom, the lack of participation

may be limiting in the collection of data. Another limitation could be that the

non-tenured teachers who take part in the survey may be reluctant to answer the

questions openly and honestly. Although anonymity was guaranteed, there was

the chance that new teachers would be hesitant to answer some of the questions.

A fourth limitation is similar to the one above in that there may have been

administrators who were reluctant to answer questions openly and honestly

during the interviews which were recorded. Confidentiality was guaranteed, but

there was still the chance that administrators could have been defensive of their

induction program or may not have spoken freely due to fear of ramifications. A

fifth limitation may be related to the fact that only Generation Y teachers were

surveyed as opposed to all new teachers which would include those from the

Baby Boomer generation and Generation X. Although Generation Y teachers will

make up the majority of those participating in new teacher induction programs

in the near future, there will be others participating as well, and these other

teachers may have needs that are different than those identified for within

Generation Y.

Finally, with one researcher analyzing these data that will be collected, there was the chance for bias, especially with the researcher's current beliefs and understandings of technology use in the classroom. Specifically, this researcher is an elementary school principal who is considered to be a leader in the use of technology in his work. He has conducted administrator academy and district-level workshops on this topic, he models the use of technology within his school community, and he expects teachers to incorporate instructional technology into their planning, teaching, and assessing of student learning. To help minimize such bias, the researcher kept a journal throughout the data collection process. The use of this journal allowed the researcher to write his ongoing reflections regarding the potential for bias that may emerge as these data are being collected. The objective was for the researcher to remain as unbiased as possible while analyzing and interpreting these data.

Despite these limitations, educational leaders must be prepared to provide new teachers with appropriate professional development in the use of instructional technology in their classrooms as one important component for retaining the best and brightest new teachers. This study, through surveys, interviews, and other data collection methods, has presented a positivist perspective on new teacher induction in the area of instructional technology. As

Merriam (2009) writes, "A positivist orientation assumes that reality exists 'out there' and it is observable, stable, and measurable" (p. 8). There is no doubt that most, if not all, teachers are using technology in their classrooms, and that new teachers are receiving induction training upon their initial hiring in a school district. Educational leaders must be prepared to provide new teachers with appropriate professional development in the use of instructional technology in their classrooms as one important component for retaining the best and brightest new teachers.

Summary

This chapter has outlined the research methodology used to address the primary research questions which are:

1. What constitutes a high quality new teacher induction program for Generation Y teachers in order for them to appropriately utilize technology in their planning, instruction, and assessment?

2. What recommendations should be made for all school districts in order for them to properly train their new Generation Y teachers in the best uses of instructional technology for planning, instruction, and assessment?

3. What are the implications for school leaders?

Identified in this chapter were the site selection, participants, data sources,

data collection procedures, proposed timeline, data analysis procedures, and

lastly, the strengths and limitations of the study.

CHAPTER IV

PRESENTATION OF THE DATA

Introduction

The purpose of this dissertation was: (1) to deeply study one school

district that is exemplary in the use of instructional technology to enhance

teachers' planning, instruction, and assessment; (2) to determine how this school

district trains its Generation Y teachers in the use of technology; and (3) to make

recommendations to educational leaders as to the best plans for teacher

induction in the area of educational technology. The ultimate goal of a successful

new teacher induction program is to retain the very best new teachers in the field

of education. According to Breaux and Wong (2003), "New teachers must be

trained if we want them to succeed; it is much better to train new teachers and

risk losing them than not to train them and risk keeping them" (p. v). In

addition, "An induction process is the best way to send a message to your

teachers, a message that you value them and want them to succeed and stay" (p.

v).

This dissertation will address the issues of instructional technology competencies as related to new teacher induction with particular attention being paid to Generation Y teachers. Generation Y teachers are those who were born roughly between the years 1977 and 1995 (Behrstock & Clifford, 2009). The focus on Generation Y teachers was deliberate as that "the majority of newly entering teachers are those from traditional education programs who are around age 22. These teachers are from the latest generation of adults entering the workforce: Generation Y" (Rebore & Walmsley, 2010, p. 9).

Lovely and Buffum (2007) prefer the term "Millennials" when writing about those born during the Generation Y years. In defining this generation, Lovely and Buffum write,

> They are in our classrooms as students, finishing student teaching at the university, and beginning to apply for classroom jobs all across the nation. They are well educated and open minded, and they love to collaborate. They are entering the schoolhouse with huge expectations, and if they are not pleased, they're only a click away from letting hundreds of friends know about it. (p. 71).

These authors affirm that we all better prepare for their continued emergence as students and as new teachers.

Research Questions

Based on the above stated purposes, the main research questions for this paper are as follows:

1. What constitutes a high quality new teacher induction program for Generation Y teachers in order for them to appropriately utilize technology in their planning, instruction, and assessment?

2. What recommendations should be made for all school districts in order for them to properly train their new Generation Y teachers in the best uses of instructional technology for planning, instruction, and assessment?

3. What are the implications for school leaders?

The methodology used to collect data in order to answer these research questions was three-pronged. Figure 4 illustrates the three methods of data collection used for this study.

| Administrator interviews - District and school level |
| Artifact review and new teacher meeting observations |
| Generation Y teacher survey -online |
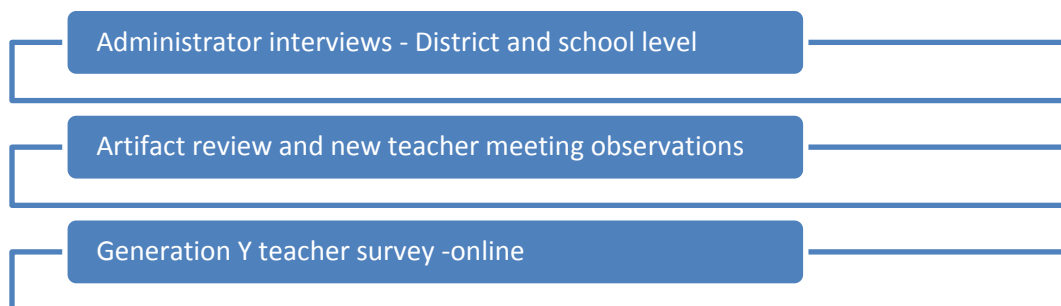
Figure 4. Three Methods of Data Collection

Description of the School District Being Studied

The District

The school district being studied for this research project is located in the northwest suburbs of Chicago, Illinois. This is a large district as compared to most other suburban districts in the Chicago area. It is an elementary district serving students in grades pre-kindergarten through eight. The district is comprised of 15 elementary schools, four junior high schools, one early childhood center, and one alternative public day school.

The school district's mission is *"To produce world-class learners by building a connected learning community."* According to the district's webpage "Producing world-class learners in today's complex and fast-paced world is the single most important responsibility of the district. Schools, teachers, administrators, and

support staff work together to ensure that all students enrolled in district schools receive the highest quality of educational opportunities that will not only enable them to meet or exceed state standards, but also will position them for success in future educational and career endeavors" (December 31, 2013, http://www.ccsd15.net/pages/CCSD15/About_District_15/AboutDistrict15)

The Students

The district has an enrollment of approximately 12,200 pre-kindergarten through eighth-grade students. Students come from diverse socioeconomic and ethnic/cultural backgrounds. Below is the breakdown, by percentages, of the enrollment.

- **34.9% Low-Income** (Low-income students come from families receiving public aid; live in institutions for neglected or delinquent children; are supported in foster homes with public funds; or are eligible to receive free or reduced-price lunches.)
- **20.0% Limited-English-Proficient** (Limited-English-proficient students are those students eligible for transitional bilingual programs.)
- **12.3% IEP** (IEP students are those students eligible to receive special education services.)
- **8.5% Mobility Rate** (Mobility rate is based on the number of times students enroll in or leave a school during the school year.)

District data show that more than 75 languages or dialects are spoken in the homes of the students. Table 8 below details the percentages of the student ethnicity in the school district, the State of Illinois, and the United States.

Table 8

Percentages of Student Ethnicity

Ethnic Group	District	Illinois*	USA**
American Indian/Alaska Native	00.5	00.3	1.0
Asian	14.8	4.2	5.0
Black/African American	03.7	18.2	17.0
Hispanic	33.0	23.6	22.0
Native Hawaiian/ Pacific Islander	00.1	00.1	N/A
White	46.3	50.7	55.0
Two or more races	01.7	2.9	N/A

*Retrieved 12/31/13 from http://isbe.net/research/pdfs/quickstats_2012.pdf
**Retrieved 21/31/13 from http://ocrdata.ed.gov/Projections_2009_10.aspx?v=1

The Staff

The district currently employs 2,088 staff (which includes 883 certified teachers, 60 administrators, 815 classified staff, and 330 substitute teachers). This includes teachers who average 13 years of teaching experience; 78% of teachers hold master's degrees and above; and 76 teachers (4%) are certified by the National Board of Professional Teaching Standards, which is the highest teaching credential available. In comparison, in 2012, the State of Illinois had 73,445 Pre-K through grade 8 teachers of which approximately 5600, or 8%, were National

Board Certified. Nationally, there were 1,758,169 elementary teachers in the

United States (Retrieved 12/31/13 from http://www.edreform.com/2012/04/k-12-

facts/#teachers) and more than 100,000 National Board Certified teachers across

the U.S. (Retrieved 12/31/13 from http://www.nbpts.org/new-milestone).

The salary range for teachers in this district is $40,712 for beginning

teachers with no years of teaching experience and a Bachelor's degree with no

additional hours of education to $104,480 with 24 or more years of teaching

experience and a Master's degree with 30 or more additional hours of education.

District Finances

The FY2014 Budget is $149,128,942. Below are the expenditures and

revenue sources as reported on the district webpage.

Expenditures:
- Educational—78.1%
- Tort—0.8%
- Operations/Maintenance—7.1%
- Transportation—6.3%
- IMRF/SS—3.7%
- Capital Projects—4.0%

Not included:
Debt Retirement Fund
Transfers

Revenue Sources:
- Local—80.1%
- State—13.0%
- Federal—6.9%

Not included:
Debt Retirement Fund
Transfers

The district's 2012 Total Equalized Assessed Value (EAV) was

$3,589,968,277.

The district's FY2013 operating expenditure per pupil was $12,069.76. For

the sake of comparison, the "Foundation Level," which is intended to represent

the minimum level to adequately fund the education of a single pupil in the

Illinois K-12 public school system has been set in statue at $6,119 per pupil since

2010, and the state average is $11,456.70 (Retrieved 1/1/14 from

http://www.isbe.net/news/2013/oct7.htm). In addition the national average for

the current expenditure per pupil in America's public schools is $11,184

(Retrieved 1/1/14 from http://nces.ed.gov/programs/coe/indicator_cmb.asp).

Results from the Semi-Structured Administrator Interviews

Semi-structured focused interviews were conducted with 13 school

district administrators. Eight district-level administrators were contacted via

email for an interview, and six interviews were conducted over the telephone. A

total of 19 elementary and middle school principals were contacted via email for

an interview, and telephone interviews were conducted with seven of the 19

principals. The 13 administrators were asked a series of 19 questions in the areas

of new teacher induction, general understanding of the characteristics of Generation Y, and their school district's training of new teachers in the area of instructional technology. Their responses were recorded on an iPad and transcribed by an independent online transcription service.

General demographic information was collected from each administrator before the interview questions were asked. Table 9 details the demographic data collected.

Table 9

Administrator Demographic Data

Administrative roles	7 Principals	6 District Administrators
Average years in education	23 years	30 years
Range of years in education	14 – 35 years	14 – 47
Average years in this position	3.4 years	8 years
Range of years in this position	1 – 7 years	4 – 13 years

Educational Background
    Master's Degree
    Master's Degree +30
    PhD/EdD
	2
	5
	0
		1
		3
		2

Generation
    Baby Boomer
    X
    Y
	2
	4
	1
		3
		2
		1

The following data represent the 19 interview questions and summaries of the participants' responses to each of the questions. For each question, the district-level administrators' responses are summarized first, followed by the summaries of the principals' responses.

1. **Interview Question 1 - What technological skills do you look for when hiring new teachers, especially as they pertain to the use of technology for planning, instruction, and assessment?**

    Administrator 1: I think we look for kind of an attitude and a mentality versus specific skills, so I don't know that we actually ask for specific skills, but we want them to have the right attitude, and we figure if they have the right attitude, they can learn any skills that there's a deficit in.

    Administrator 2: This administrator does not participate in the hiring process.

    Administrator 3: I would have to say, in all honesty, none. We look for an understanding of good instruction, best practices and the theory and practice behind assessment. We are not really looking at tech skills.

    Administrator 4: I'm not as concerned about their ability in technology because I feel like I can always teach them the technologies that we use here, that sort of thing. I'm much more interested in their organizational ability, their

understanding of different methods, their understanding of differentiating the

instruction, that sort of thing.

Administrator 5: I think our district looks for teachers who have strong

instructional practices, have had experience with using technology. I don't know

that they specifically look for or ask questions that relate to teacher's use of

technology when they make the hiring decision.

Administrator 6: This administrator does not participate in the hiring

process.

Principal 1: A familiarity with existing systems. The current system that

we're using for communication is Google Docs. Anybody right now coming in

has to be conversant with that. They have to be conversant with documents,

spreadsheets, databases, presentation skills, the document camera, etc. The have

to have a good knowledge of what's available out there in terms of videos, in

terms of websites, that kind of thing. The other piece that I think we're using

quite a bit is social sites, things like Edmodo.

Principal 2: I look to see if they can integrate the technology within their

lessons rather than using the technology separately.

Principal 3: We ask for their comfort level with technology and their

experiences with technology whether it's a new teacher or an experienced

teacher that's coming in for the interview. What we typically look for is some level of interaction with the technology as a resource in their classroom whether it be in the area of a smart board or iPads or ELMOs and things like that.

Principal 4: I think it's important for teachers to have technology skills that would extend far beyond simply knowing how to use a laptop as a word processor or to use a search engine or basically an email station. For example, I am looking at iPads. Taking iPads and really using, and knowing how to evaluate good technology. Knowing how to look at different applications and different software.

Principal 5: I would say to be honest I'm not spending too much time looking at what their skills are. I'm making some assumptions that they have tech skills beyond some of our veteran teachers just because they are fresh out of school.

Principal 6: Not necessarily. Although we do ask questions about how technology can enhance their teaching. I'm not looking specifically for anything, just a general knowledge base.

Principal 7: We basically ask about record keeping, creating documents, and then what programs for kids are they familiar with? We'll get answers like the ELMO projectors, SMART Boards, different i-Pad programs.

2. What are the delivery models that your district provides new teachers for their new teacher induction?

Administrator 1: We definitely highlight differentiated instruction. We highlight guided reading. We talk about the use of technology as a way to differentiate, and you know, I never sat through the complete induction training, so I'm not sure what else they emphasize. They meet probably quarterly. In addition, they are expected to meet with their mentors on a more frequent basis.

Administrator 2: We provide a five day job-differentiated orientation. There is an orientation just to get people familiar with where we are going, what our targets are, and also major initiatives that are in the district. We also work very hard to make sure that every teacher has a mentor, and they work with their mentors during orientation week to get started with their classroom and setting things up. We also do curricular sessions, particularly in math and literacy. We also provide an introduction to instructional technology in the district during orientation. In addition to that, we have a special session for the new people to explain the program, expectations the district has of them, as well as kinds of support that they can expect to have during the year.

Administrator 3: It's a five-day program and it ranges from nuts and bolts to time in their classroom with their mentor. It's a pretty comprehensive

welcome to the district and "Here is what you need to get up to speed on." For example, the Department of Instruction takes the day which starts out with an overview of the Department of Instruction and what it's responsible for, and then breakout sessions in math and literacy for the grade level that you'll be teaching, in a more in-depth piece. There's a cultural competency piece in there because of the diversity of the district. There's an overview, "Welcome to the district, here's our goals, here's our mission."

Administrator 4: I'm going to tell you from my point of view what I do, and that is we have an introductory session where we just for about an hour just talk to them about what our department does, and provides for them for support and that sort of thing. Then we actually do hands on computer training to teach them the computerized IEP program that we use, and we also do hands on training on the computer on using the progress monitoring tools that we use.

Administrator 5: Well, there's a mentoring program and teachers have a mentoring relationship. It's pretty extensive where they meet on a regular basis work together, collaborate together. The mentor has a lot of interaction with the new teacher. So they have a pretty extensive mentoring process and there are sort of like I believe there are workshops or sort of some specific programs where teachers after school meet and then they get some workshops.

Administrator 6: Not familiar with the New Teacher Induction Program.

Principal 1: We do a week-long orientation for teachers and then there is a mentor that is assigned. We have gone to the Danielson model so that teachers are trained in the Danielson framework and they get supported throughout the year. It's a very reflective process. From what I've seen in the district, there's an obligatory first year and then a potential second year that teachers can opt for if they need to or if they're recommended by the administrator.

Principal 2: All of our new teachers are partnered with a mentor teacher, so if that mentor teacher uses technology in the classroom, then they would have direct mentoring opportunities from the teacher that they're partnered with. We do five full days of new teacher training. I know what all the days are because they give us an agenda, so they have an overview of the school district. They meet all the cabinet members and what their departments about and how they can be of service to them as a new teacher, and technology is incorporated into that. They have some training on basic technology that they need for their job, so that would be like email systems, student information system that's incorporated into their training, and then they do a lot of more in depth training on the various curricular areas.

Principal 3: I am not very familiar with the delivery models. I do know what they do get over the summer when they have their new teacher training that there is training on specific things with the laptop that they would get and how to utilize that. Outside of that, there are other opportunities for tech training but there isn't to my knowledge enough probably being done at the new teacher level when these people are hired.

Principal 4: (New to this district) I know a little bit about it. I hired a part-time kindergarten teacher after the school year started, and then, I do have a second year who's participating, and year two, well I mean, you're going to district meetings with new teachers. You're also spending time working with your mentor teacher, so that being the broad understanding that I have of the new teacher induction program.

Principal 5: They'll start out prior to the school year starting a week or so before the school year starts. They'll have an extensive multiple day nuts and bolts of what to expect in our district. One of those days they'll meet their building mentor, they'll have lunch with them and this is all part of the structure. Then they'll come back to our school, and that day is like the scheduled day that the new teachers and the mentors will meet with the principal.

Principal 6: They attend a new teacher induction week-long training that covers a variety of topics, technology being one of them. Throughout the year, first year teachers, who we call level one teachers, go back throughout the school year for additional training days. They also have very specific requirements that they must meet throughout the year in regards to working with their mentors. Lesson plans, observation notes, things of that nature.

Principal 7: They have a really intensive induction teacher week where the teachers throughout the week start early and go to all kinds of workshops, but I really don't know if it's anything hands on. I don't even know if they have an actual one on technology to tell you the truth.

3. **What, if any, is your role in the planning of the new teacher induction process in your district?**

Administrator 1: I have a part in it but I don't really plan it. It is done by our new teacher induction facilitator.

Administrator 2: I plan it. I do the planning and the scheduling.

Administrator 3: I work collaboratively with the new teacher induction facilitator. She generates a scheduled based on exit criteria from the teachers the year before, what sessions were most helpful, what sessions didn't they get that they wish they would have gotten. She shares all that feedback with us from our

sessions and then we tweak our sessions and plan them based on the needs of the group coming in. It's just an ongoing process in terms of what's needed.

Administrator 4: I work with all of the student services staff for one day. I don't have much say in the other days of new teacher induction. On an ongoing basis I have a lot of input on new teacher workshops related to my department.

Administrator 5: I don't have a role in the planning.

Administrator 6: No role in planning new teacher induction.

Principal 1: I help in selecting the mentor because I evaluate most of the new teachers. We use a parallel process based on the Danielson model.

Principal 2: The only planning that I'm involved in is the time that's allocated to me at the building level, about three hours of their … I would guess it's probably about 30 hours of training, and I get I think about three hours with them.

Principal 3: Other than the half day where they come over to the building level or site based training, everything else is done at the district. The district staff gives us an outline of items to cover with our new teachers but typically, it's something as simple as walk through the building and to their classroom, going

over expectations providing any other additional information to help them feel comfortable in the building.

    Principal 4: (New to this district) No role in planning this year.

    Principal 5: My only planning would be to select who I think might be the best mentor.

    Principal 6: We're able to review the week long induction topics and give our feedback as principals. That information was sought when we had someone new take over the role, so we were able to give our feedback there. One afternoon of that week is spent in the building with principals so we can go over building level topics that we need the teachers to know.

    Principal 7: We have a person at the district office who plans it, and it's a whole week long thing about culture and the different curricula. It's all scheduled, and then there is some time slotted for the new teachers to come back to me, and I in-service them on my building.

4. What, if any, is your role in conducting the new teacher induction process in your district?

    Administrator 1: I give the introduction to the district. I talk about the history of the district, the expectations that we have for teachers, and the kind of expectations that we have generally for professionals in the organization.

Administrator 2: I provide new teacher workshops, as well as run the orientation. This year there are four new teacher workshops. And the first one, I actually have found a person who facilitates. That is a full-day release. Our induction program here has two levels. We have level one, which is for teachers who have two years or less prior teaching experience that come into the district, and then we have a level two for people who have more than two years of experience coming into the district. Our feeling is, the people who we target with the most intense work are the brand-new people, because they're the ones that research has shown need the most support, and also are still in a formative stage in their development as teachers, so that it makes sense to ground them in what we feel is best practices early on in the district. So with that, the new teacher workshops, three of them are for level one new teachers. The level two new teachers are invited to only one. And I try to be very flexible about that, because we define new teacher as a new professional hire. So among our "new teachers" would be psychologists, social workers, people of that nature that don't have traditional classroom jobs. And so when it comes to the new teacher workshop that is required for all of the new hires, I'm very flexible if what we're doing, usually it's classroom based. The majority of our new hires are classroom teachers. So when we have a situation where it's totally not going to be that

useful for somebody to attend the workshop, we offer them the opportunity either through their coordinator, sometimes the coordinator will provide an alternative, and other times we, if they have gone to things outside the district in their field, if they can show the evidence of completion, we accept that.

Administrator 3: Our department has one full day and then we have little pieces on the other days.

Administrator 4: I only conduct the portion related to my department.

Administrator 5: I'm given an hour with the new teachers, and when I speak to them I introduce myself. I give sort of an overview of what we use in the district. I give some information about our philosophy of the use of technology. I talk about sort of our goals and our guidelines and then I make sure that they understand that I'm available to help them and that they have my contact information, they know what things I can help them with and then beyond that one hour with them it's up to the new teachers to sort of reach out and ask questions and meet with me if they need that or have me help them with a project or whatever.

Administrator 6: Not involved in conducting new teacher induction meetings.

Principal 1: Only in orienting the teachers to the building. Things that have to do for instance with English language learners, and sometimes in materials, sometimes with some of the staff development. For the most part, the district handles that centrally. There's a coordinator for induction that pretty much handles the process from beginning to end.

Principal 2: No, none of that. We attend a really nice luncheon.

Principal 3: No. A lot of it's done with our personnel department, our department of instruction, the union.

Principal 4: Did not play a role in conducting new teacher induction meetings this year.

Principal 5: The only thing I do is meet with the new teachers in the afternoon during one of the new teacher days. I make myself available and we set up times. Other than that there may be a time when we are invited to come over for the luncheon, one of those days.

Principal 6: No. We don't participate in anything other than the half-day when they come in to our building.

Principal 7: I spend some time in my building with the new teachers. That's it, unless they would maybe ask me to present. I think over the years, they've had principals present portions of it, but I've never done that.

5. What were your experiences with new teacher induction in previous districts?

Administrator 1: I did not have experiences in other districts.

Administrator 2: I actually had none.

Administrator 3: When I worked as a curriculum coordinator in my previous district we worked on delivering staff development to new teachers.

Administrator 4: I had some, but it was minimal compared to this district.

Administrator 5: I did not. The previous district that I worked in did not have a process for new teacher induction or an extensive year long mentorship for new teachers.

Administrator 6: No I did not.

Principal 1: I have participated sometimes in other districts in the beginning of the year presentations and orienting new teachers to the district. But, this district is much more thorough. There is a much more formalized process here.

Principal 2: I had experiences in another district with new teacher induction but it was on a smaller scale than here.

Principal 3: Yes and it's a very similar format where really a lot of what's happening is at district level. I've had opportunities to present information, maybe the day in the life of a teacher or a specific content area.

Principal 4: Yes. I was part of new teacher induction in my previous district. That included working directly with teachers in the new teacher induction program, again first and second year teachers. It was an intensive week prior to the beginning of school. My primary role there was to spend a day talking about the nuts and bolts of professional learning communities and how that fit into the school district that I had previously been a part of. Then I had the opportunity at some of the Tuesday afternoon meetings, for example, to present and work with new teachers after school hours in the formal sense.

Principal 5: Yes, and we had a very good one too in my previous district that was similar to ours here were it was a two year program. The one thing I really liked about that other program was that we assigned mentors to new teachers and it was for the first half of the year. Then at that point there was an opportunity for new teachers to possibly select a new mentor.

Principal 6: I was not an administrator in my previous district, but I know that it was a one day shot in a huge auditorium for new teachers.

Principal 7: No I have not.

6. Are you pleased with the current new teacher induction process in your district? Please explain why or why not.

Administrator 1: Yes, I am. I think it's been successful. I think the teachers that have been through the process are more effective with kids, and they tend to reach a proficient level much more quickly than some other teachers that haven't gone through the same kind of program, in my experience.

Administrator 2: Yes. For the most part, yes. Although I'm the kind of person that I see the good things, but I also see the opportunities for improvement. There are a couple of things that, if the world was ideal, I would have them done differently. But you work within a culture. Every district has a culture, and you have to work within that culture. And you can't always change culture. Although I will say that since 1998 I think the program has had an impact on the culture. Because prior to 1998, people basically worked in isolation. There was not a real lot of collaboration going on in the district. I've seen a great improvement in teachers' ability to collaborate and share over the years. There aren't people who are hoarding secrets and not sharing their professional information with other people. And I think that's been an enrichment for the whole district.

Administrator 3: I am pleased with it. It's not perfect, but because it

evolves every year and that it's flexible enough that it's meant to meet the needs

of that group coming in. They don't just roll over the old agenda and force fit the

new people into it, depending on the backgrounds of the people coming in. Are

they mostly classroom teachers? Are they mostly specialists? Are they mostly

bilingual teachers? Yes, there's certain nuts and bolts that have to be in the

program every year, but it also allows for the flexibility every year to get people

what they need. On a negative piece, what I think is a little unrealistic becasue

it's five full days and it's unpaid for new teachers, and I think that's just a little bit

unrealistic in this day and age.

Administrator 4: Yes, I am. I think it's important that everybody know

what the expectations of the district are. I think that it's important really in a lot

of situations for even the student services staff that would get the same

information that the gen-ed teachers are getting so that when they're then

consulting or observing in the classrooms, those kinds of things, they know what

the teachers have heard, and so they're all speaking the same language.

Administrator 5: I think overall I'm pleased. I think the mentoring is

extremely important. I think they work hard to bring the principals up to speed

in terms of the importance of mentoring. But, as far as specifically working with

the teachers for instructional technology I don't think an hour, out of all the time that they spend with the new teachers, I don't think an hour for the entire school year is really enough.

Administrator 6: No opinion on this topic.

Principal 1: Yes, it seems to be supportive for the new teachers.

Principal 2: I am pleased. As teachers come in, they have an intensive training at the beginning of August, which is really nice, so they have these two pretty intense weeks where they're receiving a lot of information, and then they fill up two additional weeks to be in their classroom, apply some of the information that they've learned, ask questions, have those a-ha moments where, okay, now I can come at what they told me with what I actually need to do.

Principal 3: Yes. I think they do a really great job of covering all areas. Like I said, it's very overwhelming as a new teacher to come in but those five days, you're able to make connections, you're able to get a lot of information. The mentor for each of the teachers is kind of available on a few of those days not only to connect with at lunch but then they have some additional time together to just kind of break down some of the information.

Principal 4: Yes. I think it's been an interesting experience for me from the standpoint of where I had come from.

Principal 5: Yes actually I am. I feel like they have really come in with a good understanding of how to start the school year off. Then there are built in days when they are with other new teachers across the district or other new teachers and their mentors throughout the entire school year. There are set days where they will be relieved from classroom duty to go to learn about something else or to follow up and see how things are going. They have this whole official program that lasts the entire school year. Then in Year 2 they still offer additional opportunities but they are voluntary.

Principal 6: I am. I think they do a great job. They also send out a survey to principals every year, asking how we think it went, if there's any gaps we believe the candidates are coming in missing, and they try to revisit that every year when they plan the next year's sessions.

Principal 7: Very pleased, very supportive. Now with technology, I think there's room for improvement, but they just added another person in the district, so it's still evolving, but as far as the whole new teacher mentoring system, it's very solid.

7. If not, what would you like to see added or changed?

Administrator 1 - 4 and 6: No responses to this question.

Administrator 5: Yeah. I would like beyond that hour [of technology]. I would like an opportunity to work with the teachers throughout the year perhaps giving me an opportunity for at least once or twice to be part of the after school meetings that they have or the workshops that they do. I would like to be in front of them more than just once.

Principals 1 - 7: No responses to this question.

8. **What are the basic areas of concentration that are included in your current new teacher induction plan?**

Administrator 1: No response to this question.

Administrator 2: The curriculum, planning for instruction. Basically if you look at the four domains of Charlotte Danielson's framework, those are the main focus. Everything that we do falls under those four domains. Getting familiar with district technology is a key piece. Learning to use data to drive instruction is another. Teacher reflection that's in depth and structured, because a lot of people have varying natural abilities to reflect, is important. But a lot of people don't do it in a systematic way, so we try very hard in the program to give teachers an opportunity to engage in in-depth reflection with peers.

Administrator 3: There's a technology piece. There is nuts and bolts in terms of, "Here's your insurance benefits. This is how it works. If you need to file

this, this is where you ..." like a how-to. That's handled by the personnel

department. I talked about the cultural competency piece in there. There is small

amount of time set aside for the teachers' union to address the new staff. There's

a luncheon for all the new teachers, their mentors and the administrators and the

Board of Education. There are custom sessions in there for specific areas, such as

speech and language teachers or hearing itinerant teachers or special education

teachers, self-contained bilingual teachers, ESL teachers. They all have

customized sessions within there.

Then there is a significant amount of time set aside within those five days

to meet with your district-assigned mentor. Then the last several years, we've

had a session where we have had teacher volunteers talk about setting up a

classroom. These are model classrooms where teachers have agreed to have their

classroom completely set up before teacher orientation. This might be what a

kindergarten looks like. This could be what a primary classroom looks like. This

is a good way to set up an intermediate classroom or a junior high math

classroom and … just to give them ideas before they get started.

Administrator 4: Okay. Generally, this is what I know, which is probably

not a lot, but classroom management, cultural competency, differentiated

instruction. I think that's pretty much all I know for certain.

Administrator 5: The basic areas of concentration for new teacher induction are curriculum, classroom management.

Administrator 6: No response to this question.

Principal 1: Off the top of my head, I know that classroom management is part of it, technology is part of it, data management is a big part of it, district systems, I think, are incorporated into that, some of the mandates are a big part of that piece. I think they do some materials. They do curriculum presentations. Because we have a large population of English language learners, that's always a big portion of the induction. There's even some financial literacy and some about the contract.

Principal 2: Curriculum, technology. They have an overview of all of the cabinet members' responsibilities in the district. They have a benefits group that applies to the teachers personally. They do some of the safety training. The majority of it is curriculum. It gets into a little bit of special education and RTI, too.

Principal 3: I know personnel does a lot of discussions of the contract and kind of following the daily expectations of the teachers. Department of instruction will cover just basically stepping into a building for the first time, what to expect, what can they do, what are the resources available. Obviously

within the department of instruction, there are a lot of different resources.

They're provided binders with standards and obviously, it's not enough time to

review everything but they do review specific standards and they may break

them into elementary versus intermediate versus junior high teachers and then

provide them specific information in those areas from the department of

instruction.

I know the business department comes in and talks about purchase

orders, how to complete purchase orders and what the pay and everything else

looks like. Our superintendent office comes in and welcomes them, talks to them

about our school district. I know in the past they've taken a bus tour of the

different areas in our school district so that the new teachers coming in can see

where the children are coming from, where the different schools are within our

boundaries so those are just some of the things that I know are covered in those

meetings.

Principal 4: (New to the district) I am not very familiar with it yet.

Principal 5: They'll certainly talk about reading, they'll talk about our

student data system and how that works. They are taking attendance things like

that because those things are all standard across the district. They'll talk about

that and classroom management. Then they'll have more conversations I believe

about different ways to communicate with parents and the importance of that.

There is no set way that you have to have a website or something like that.

Principal 6: There is a lot of information on the culture of the district,

expectations for professionalism, a little bit of history of the district and what

we're all about, our mission. There are breakout sessions that are pertinent to

each teacher; they're broken apart by group. They look at teachers that have no

experience and are teaching in the classroom, teachers who are special ed,

teachers who are specialists like music, PE, art. They break all those groups

apart. All classroom teachers would get training on any of the new reading

initiatives or math initiatives that might be going on in the district. This year they

all got training in Common Core standards.

Principal 7: They introduce them to all the different key people who they

would need to talk to, to get information. They show them the district website,

where all the forms are, where to find things, who to ask if you have questions.

They talk about how to get a substitute through our Aesop system, taking

attendance through our SIS K-12 system. They talk about building culture. They

talk about a little bit of cultural competency since our buildings are getting so

diverse. They talk about the different curriculum, math, English, common core.

They also do a workshop on discipline, behavior management.

9. Are there areas that are over-emphasized or could be reduced/eliminated?

Administrator 1: Sure. I think that five days at one time is a lot, and I think if it was spread out over the course of the year after they've had more practical experience. I think that that would probably be more efficient and better. I think that there's probably a little too much administration, managerial kinds of things involved in five days, and I think that there could be more real time kind of staff development as they go throughout the year versus so much at the beginning.

Administrator 2: To be honest, I don't, especially because, as I said, we have this differentiation between level one and level two. I feel that what we offer is relevant and important.

Administrator 3: Yeah, I think the time allowed for teachers in their classroom could be cut back from the five-day mandatory and then they could be just like all the other teachers who go in there and get their classroom ready on their own time on different hours.

Administrator 4: No. I don't think so.

Administrator 5: No. What I would like to see is I would like to see a greater connection with curriculum to technology tools.

Administrator 6: No response to this question.

Principal 1: Common core frankly. It could be underemphasized. The way that it's going is such flux. It's such, I think, an unsteady approach. We don't know what the assessments are going to be and yet some districts are going in head-first with that. I think we could use a little bit of a waiting game with that.

Principal 2: No. You know, we do a really great job here.

Principal 3: Not to my knowledge. I asked one of our new teachers. I just kind of blatantly asked how is everything, are you getting what you need out of it and typically the answer is they're getting exactly what they need out of those days. I haven't heard anything otherwise from the new teachers that I've hired.

Principal 4: No response to this question.

Principal 5: Not that I'm aware of.

Principal 6: I think some of the business pieces of it could probably be taken care of in a different way. That would be the paperwork aspect.

Principal 7: I don't really … I can't really answer that question to tell you the truth.

10. Are there areas that need to be increased or further developed?

Administrator 1: I really think classroom management. I think instructional planning and then instruction in the classroom, delivery models and specific strategies for making sure kids are learning and providing

interventions for them. I think that through assessment, I think those are all the areas that will help them be more effective in making sure kids are learning at high levels.

Administrator 2: What I'd like to see increased are the things that are difficult to do. One of the things I'd really like to see would be new teachers to have more time to work with their mentors, more time for mentors to go in and observe new teachers, more time for new teachers to go and observe other teachers, more time for professional conversations. The way it works, and this is very typical of a program that doesn't have any release time, because we really don't, other than this one workshop we're doing on classroom management, which is the one I found a presenter for, that's a full day release. But other than that, there's no other release for the new teachers to go to training. One of the things I try to emphasize to mentors from the get-go is that they are professional growth facilitators. That is key. They're supposed to take the new teacher where they're at developmentally and help them move forward, to become more effective more quickly, and to gain a sense of confidence and efficacy as soon as possible.

Administrator 3: Not really. By that fifth day, you get that glazed-over, eyes glazed-over look. They're only going to absorb so much.

Administrator 4: I don't really know.

Administrator 5: What I would like to see is I would like to see a greater connection with curriculum to technology tools. When the new teachers work with their mentor teachers their engagement with instructional technology many times depends on their mentor and how engaged in technology they are and how much they encourage the new teacher to kind of either fly and run with ideas or work together to do some new things. I've seen mentors say oh you're the young one, help bring me up, help bring my skills up. Let's work together so that you can teach me things and help me feel more confident, but that is the exception rather than the rule.

Administrator 6: No response to this question.

Principal 1: Certainly, the cross-curricular kind of thinking should be much more emphasized.

Principal 2: I don't believe so. I think that would be a great question to ask new teachers. I think from my standpoint, my teachers come in, and they're really well prepared.

Principal 3: I think our district is a little bit behind in the area of technology or how it's being rolled out. We're doing a good job of trying to get there but for example, we have 3,200 new iPads. They're not in our hands yet

because the district is trying to figure out how to roll out or deploy those out to

our buildings. When teachers come in, it would be nice to have that technology,

some days where we can discuss how to utilize that type of technology as a

resource in the classroom, going over apps, going over ways that other teachers

have used that.

Principal 4: No response to this question.

Principal 5: To be honest I don't know about what has been their

emphasis this past year or this summer or during the school year.

Principal 6: I would like to see them spend a little more time on helping

teachers understand the special ed process and RTI process. Also, working with

bilingual students, understanding the WIDA and how they should use that in the

classroom with their students. Whether they are in a bilingual classroom or not,

pretty much everyone has a bilingual student or two, or ESL student.

Principal 7: Sure, yes. They're rolling out iPads throughout the district,

so I think that would be an area that they could definitely add to.

11. Does your district's new teacher induction process extend past the very

beginning of the school year? Why or why not?

Administrator 1: No response to this question.

Administrator 2: Yes, it goes on all year. Well, actually, we have a two-year program. The first year is required as a condition of employment for all new employees. Whether they're level one or level two, they must participate. They must work with a mentor. The second year is an optional program for people who are in their second year in the district. It is open to any second year teacher, whether they are level one or level two.

Administrator 3: All the teachers new to the district, regardless of their years of experience, have to do those five days. Then they either go into level one or level two. Level one is a brand new teacher. Level two is, "I'm an experienced teacher, but I'm new to the district." Then there are different sessions throughout the year for level one and level two teachers.

Administrator 4: Yes. They have ten after school meetings with workshops that are like an hour and a half to two hours long. Then they have two all day workshops, too.

Administrator 5: Yes. It does. I believe it's a full year. The mentor program is a full year.

Administrator 6: No response to this question.

Principal 1: Ours go through the whole year. Like I said, there's a possibility of a second year. Yes, there are scheduled meetings that the teachers

have monthly. Their support groups that they participated. Yeah, it's a pretty intense year process here.

Principal 2: We have after school training. We have a whole schedule for that. Not only do we have level one mentors who are for first year teachers, but we have level two mentor opportunities. Those would be teachers who are in their second year, and it's optional if they participate. I think if I remember correctly, on the schedule that they have at least one additional all day training that they go to in the first year as well.

Principal 3: Absolutely. It goes throughout the year. They're able to meet with their mentors. There are new teacher trainings or orientations that happen a few times during the year. There's kind of homework that has to be done when they come in that they do with their mentors. The mentor for that person even has homework as far as have you been able to observe this person, have provided feedback on this? There are different spots throughout the year where there's meetings that take place over at district level where these people get together again and review some of the things that are going on. Yeah, it definitely extends beyond the first few days of school.

Principal 4: No response to this question.

Principal 5: Correct, it goes all year. Mandatory is a strong word; it's expected that you need to attend all these for the entire year, and then it's voluntary for the second year.

Principal 6: Level one teachers are required to attend different sessions throughout the year. For example, they have their first session coming up next week that the new teachers are required to attend. They have those three or four times a year. They have to turn in paperwork, lesson plans, reflections logs, throughout the year as well, just to, I guess, hold them accountable for going through the process with their mentor. Our level two teachers, those would be ones that have more experience, they actually choose to participate or not. They might have meetings scheduled throughout the year during the school day, but more often than not, they hold those after school. They kind of come together, all the level two teachers and just use each other as a network and share how things are going.

Principal 7: Yes, it does. When I hire a new teacher, I'm expected to get a mentor for the teacher, and there's different levels. Level one is a brand new teacher. Level two is a second year, and the mentors are required to attend meetings and turn in reflections and paperwork along with the new teacher, so it's very structured.

12. What do you believe are the characteristics of Generation Y teachers?

Administrator 1: I think that they are a little bit more free spirits. I think they don't tend to have the same loyalty to authority or organizations that maybe previous generations had. I think they're maybe a little bit more open minded. I think they're a little bit more globally and culturally sensitive. I think they're socially minded more so than maybe previous generations. I don't think they necessarily dress the way that professionals did that came before them.

Administrator 2: I believe that overall they are assertive. I believe that they are enthusiastic. Many of them, I think, are coming to teaching with a passion to do this work. It's not just a job. On the other hand, I think that they're very conscious of...They want opportunities to interact with each other. They don't want someone telling them what to do. They want someone facilitating them.

They want to feel that there's some control, that they have some control. The only negative I sometimes see is they don't always recognize that they're not the only one, that things don't always get tailored just to your needs. Many of them were reared in families where children really were the center of the family, especially because these are middle class. We usually get middle class people coming into our profession. So these kids, I mean, they were the center of the

universe, and they continue to think they are, and so they expect everything to revolve around them, and it doesn't. But for the most part, I find them very open and enthusiastic. I think they're willing to put their thoughts on the table. I think they're less defensive. They are willing to ask questions.

Administrator 3: Most of them come in terms of being tech-savvy, in terms of knowing how to use the equipment, so the hardware part, they're pretty up and adept on. My experiences have been because for the most part, technology has been part of their lives, I think that many of them are shocked when they get into a school setting and what they're used to wanting in technology and just having. I think they're sometimes surprised between the gap between what exists in the real world and what exists inside school classroom. I think they're a little surprised about that.

I think to some extent, they're somewhat naive because they see the smaller piece of the picture, but not the real big picture. "Why can't we open up the network wide open? My college, it was wide open but now in my classroom, it might not be." A little bit short-sighted sometimes.

Administrator 4: Oh, I am not going to say that I am an expert in this at all, other … just some of my own experiences. They're kind of an entitled group. They tend to have, let's say lower expectations of themselves and higher

expectations of others. And then but they're also very technologically savvy and want things done very fast, that sort of thing.

Administrator 5: I think they are risk takers. I think they don't mind experimenting. They have confidence even if they don't know something, they're more likely to keep trying and keep pushing forward. They are not easily frustrated. They are interested in innovative ways to teach. I think those are some basic characteristics.

Administrator 6: I find that a lot of them, their social skills are very different than my age group. Because they use social networking so much, I find a lot of them express themselves differently. I can only speak for the people I know, but they seem to be a bit more introverted and very comfortable with technology, though. Very, very, very comfortable with technology.

Principal 1: They are passionate about what they do. What they do has to have meaning. They balance their lives, their work life with their personal life, and their enjoyment seems to be very important. They are very technologically adept. I think they were born into the digital age. They feel very comfortable in that arena. They're open, for the most part to a diversity that they find in principle. In practice, they don't necessarily have that experience which means that they will say that, yes they are comfortable working with students from

different and diverse background, that they're comfortable working with people

from different perspective in life. When they actually encounter them, they don't

necessarily have those skills.

Other characteristics, let's see, they're very idealistic sometimes but

they're self-centered as well. They grew up in, I think, as a group of people that

were praised all the time. They don't always take criticism well. They don't

always get reframed very well because they're very confident and they grew up

very confident, sometimes the reframing is a little bit of an eye-opener for them.

Principal 2: All of my hires that I had that are now 23 through 30, all of

my teachers are amazing hard working people. They are student focused, eager

to learn. They accept practices because they know they're the right thing to do.

They challenge practices if they're not making a difference for their students.

They invest their time where they're going to get kind of the most bang for their

buck, so they're not just going to go through the motions just because they've

been told to. In the area of technology, they embrace technology. They'll

experiment with technology, fast learners. We're fortunate in my building. We

have interactive whiteboards in almost all of the classrooms. We have access to i-

Pads. We have eight computers in every classroom. We have our whole g-mail

system where you can use the calendar, and the Drive, and the Google Docs, and

all of that, and they can all complete those tasks pretty seamlessly. They're told

or shown once or twice, and they've got it.

Principal 3: The one big thing and this isn't a negative work ethic I think

is just there tends to be a lot more handholding if that makes sense. They need

some self-assurance like they're doing the right thing or doing a good job as

opposed to just having a pure basic expectation. They need a lot more assistance.

Principal 4: Generation Y would have access to information at their

fingertips, certainly using electronic media as a resource in terms of ... oh, I've

seen evidence of blogging and just really more of a, for lack of a better word,

there's less anxiety and fear about some of the things that exist technologically,

and there's been such a learning curve just in terms of getting up and running.

The instructional pedagogy as far as how to incorporate the

technology may not be as developed as you would think at first glance. The

simple use and know-how to operate the equipment, both hardware and

software, I think is less fearful. There's more inherent ... no, not inherent. That's

not the right word, but people are coming to the table with a better

understanding of just how to get started.

Principal 5: I guess what I'm struggling with is I've read a lot about a lot

of people that say they are into immediate gratification. I don't see that. I see

these teachers are coming in with energy, a willingness to put in whatever it takes. I think the ones that I've hired are student centered. I've hired a lot of teachers, and I believe most of them 95% are still in it, still energized. This is their profession versus this is their job. That's what I see.

Principal 6: They're more comfortable with technology. They know a lot of the applications that are out there. They are not as hesitant to try them in their classroom with instruction. The problem is always whether you have that technology in the building. Many of them come in with student teaching experience or life experience with certain pieces of tack that we don't necessarily have in the building. To them, it's probably frustrating that they can't actually use it with their teaching although, we're getting better with that. Two hundred iPads were delivered to our school yesterday. The teachers are very excited.

Principal 7: I think they're into technology, for sure. There's a higher comfort level with technology. I'm just guessing now, live at home longer.

13. What implications do these characteristics have on new teacher induction?

Administrator 1: I think just like we want to differentiate instruction for kids based upon where they come from, their cultural differences, I think that probably the teacher induction should be adapted to meet their needs so that they can be the most effective in the classrooms.

Administrator 2: Well I think that, again, I think providing time for

mentors and new teachers to work together is critical, and we don't have enough

of it. And I think that's one of the pieces that keeps the program from being...It is

successful. The program is successful. When we started the program in 1998, the

year that I started, of the brand-new hires, people who had just been hired that

year, 25% of them left at the end of the first year, when I was in the program.

That was these data that I had. Actually it was these data prior to the start of the

program, because I had looked into that. And at the end of the first year, I think

we were down to about 18%. And it's gone down to now, it's usually around

10%, and I don't know that we can really get it down much lower than that,

because you talk about people. Not everybody that comes into a profession

belongs in it. And not everybody that comes into a school district belongs in that

district.

Administrator 3: I know that one of our technology sessions specifically

talks about some of the parameters of technology used within the district. For

example, just this year, we have instituted a BYOD policy. Last year, if they went

through teacher orientation, you couldn't connect your own device to the

network. But, they need to understand that "No, you can't just order whatever

technology you want. You have to go through the technology department and it

has to be an improved model." These kids are used to just go into any store or ordering on line. Then they ask, "I am buying whatever I want. What do you mean it doesn't work in the district?"

Administrator 4: I don't know that answer.

Administrator 5: I just think they are open to new ideas. I believe the teachers that I've met have been enthusiastic and positive and they're very, very happy to be in our district. They are grateful for the opportunity so therefore they are very open. There is a lot of enthusiasm with the group that I've seen.

Administrator 6: A lot of us educators make the assumption that because these people come in knowing all this technology, that they automatically know how to use it for instructional purposes, and I don't know if that's really true. Really, that's what I'm trying to figure out. Just because teachers who are coming out of college these days grew up with technology doesn't mean they can use it for teaching. If they can't, then we, as the leaders, have to train them and help them.

Principal 1: Absolutely. I think that there's a reflective part. I think that the continuous studying, I think that the willingness to look at different perspective is part of what teacher induction has to frame for them. The fact that they're going to be dealing with … sometimes parents that think the same way

that they do, very self-centered, they have to be reflective enough to recognize

that when they find themselves in those situations. I think again, the multi-

cultural piece plays in. Here's another piece too, a lot of them, the ability to

understand foreign language and second language learners isn't always intuitive

for them.

Principal 2: You know, in my mind, I'm thinking about people leading

teacher induction. I don't know that if we focused more on technology that the

people teaching the new teachers would have the same level of technology as the

people they're teaching.

Principal 3: Obviously, we principals notice these trends and these things

through our working with our district office and the person in charge of new

teacher induction. She's come to a few of our meetings and asked us for feedback

in regards to what are we seeing, what are some trends. We've actually

provided some data to her, mostly qualitative data, just to provide her some

things that she could do to adjust her training or provide information during the

year to help support those new teachers.

Principal 4: Sure, I absolutely think there can be. The district is about to

roll out 3000 iPads this year, and we have a great team at the district level. And

what I think I'm excited about is having all the technology, all the opportunities

that iPads can present at the fingertips of teachers, and I think more importantly

and more notably at the fingertips of students, but I do worry that the know-how

for teachers to really effectively utilize those things initially is something I'm a

little bit fearful of. So, the district is creating an iPRO Group that's going to be

more technologically savvy teachers, who will be working to provide teachers

with the skills to incorporate this effectively as things that would help foster

student learning.

Principal 5: If we are hiring new people that we are expecting to stay for

the long haul I think there should be a part on setting up a financial retirement.

That would be something certainly that they need information about because

obviously they are not thinking about that. It is something that would be a huge

benefit for young teachers.

Principal 6: I think, again, they're more open. I think when they are

sitting in those content level meetings and they're listening about best practices

in reading, math instruction, and social studies and science, I think that they're

able to make the connections to technology and how technology could enhance

those areas. Whereas teachers that may be new, but they're second career

teachers don't necessarily have those connections made as easily.

Principal 7: I think it's probably, I would guess, a shock to some of the

kids just how much work it is to be a first year teacher. It's such a huge

commitment, and they really have to take good care of themselves. It's huge,

that first year. There's so much levels to it that they can't even really prepare for.

So let's keep it simple for quite a while. There's so much to learn although the

kids from Illinois at certain schools like Illinois State, they're out in the field

much longer, and they do get it to a certain extent, but there's nothing like when

you finally get that first job, the reality of it.

14. Do you feel as if new teachers are ready to meet the district's expectations for the use of technology in their classrooms when they are first hired?

Administrator 1: No, I don't think they are. I think just bringing skills

with the use of technology isn't enough. I think you have to know how children

are going to use that and how it's going to accomplish the instructional

educational goals and standards that you have in the classroom, and I think that

that has to be learned. Even though they come with a lot of strong technology

skills, those instructional … the transfer of instructional practices I think is

something they still need help with.

Administrator 2: Yes. With the exception of people who are older that

come in. You know, if we get somebody that's in their 40s, or their 50s, they may

have the same issues that other teachers in the district do. We're on a learning

curve here. But people who are coming in very young, I mean, there are two

things in their favor. Number one, they're hardwired. They've lived and breathed

it. And the other thing is they are, in general, are more open to these things.

They're less intimidated by it. And I think they're more willing to experiment,

within reason.

Administrator 3: I think they're more open to applying it, but I wouldn't

say they're all savvy enough to make the link to instruction so much that you

were thinking.

Administrator 4: Not all of them certainly. I think they have some similar

experiences maybe but, of course, they have to learn the specifics.

Administrator 5: I would say that they are as long as they understand

what resources are available. I see new teachers bring a lot of great uses of

technology to their classroom even without any direct support. They just bring

new ideas and they try new things. So, I would say overall from what I've seen

the teachers seem prepared to use technology in a meaningful way generally

speaking.

Administrator 6: I see that the younger teachers, they do request staff

development quite often. When we deploy the equipment and we'll hear from

them quite often, "Exactly how do you want me to use this?" Then I would refer

them to our technology coordinator who does the staff development. They will

request that often. I see that maybe they're not so ready as we might think.

Principal 1: I think so. What I've seen in the new batch of teachers, I think

I have for this year, they've gone in swimmingly. As a matter of fact, I was

speaking with someone today. We were talking about Google Docs and we have

a couple of kids that are very good with that but she says that she's been working

with a second year teacher whom she mentored. He gives her a five minute, 10

minute mini-lesson on a regular basis and she's progressing that way. The

veterans are learning from the new kids in terms of technology. That is an

absolute yes.

Principal 2: You know, it's part of our interviewing at our school because

we do have a lot of technology available to us, and we don't want it to be stand-

alone equipment, so the purpose of our technology is to be able to enhance what

we're already doing, and with all the expectations of common core, they've got

to find ways to use the technology. They're teaching through the technology,

and then the students pick up the technology skills along the way.

My new teachers aren't afraid to learn from their students either. If

there's something they don't know how to do, they'll put some of their tech

savvy students on it in the building who will troubleshoot and figure out the best way to do something, and then the teachers learn from them. These are my young teachers too learning from some of their students even.

Principal 3: I will speak for myself and I'll say the ones that I have hired certainly have that background or that strength or we've seen an ability to be utilize technology in their classrooms effectively. I guess that it is one of the questions that we ask and if we don't get the answer that we're looking for, it could be one of those things that may deter a candidate over someone else that may have a little more experience or use of technology as a way to engage students and enhance their classroom experience.

Principal 4: No. I haven't seen that yet, but I think part of that too is, when you're a new teacher, kind of every day is, I don't want to say a struggle to survive, but I mean you're focused on so many different things and you're placing so much time and attention on so many different other things.

Principal 5: Yes. I'm going to put a little caveat in there that I don't think the expectations are very high in our district for technology.

Principal 6: Yes. I think so.

Principal 7: Yes. I've been really fortunate with the new teachers that I have hired, but I have a range. I'm trying to think the past couple of years. I

have a couple that are brand new and have just taken to it based on the student

teaching experience they've had, and they just have it. Then I have had others

who are probably in their 40s that have been doing it awhile, and so I've been

very lucky, just a very diverse group of people.

15. What does your district do to prepare new teachers for mastering the functionality of the technology in their classrooms?

Administrator 1: I'm not really sure. But, we do have a staff member

who talks about how to use the computer, how to get into the files, I think the e-

mail capabilities and things like that, not adding software.

Administrator 2: Basically, it's handled, if they have problems with

equipment. We do not do a workshop on how to use an Elmo or a Smartboard. I

think teachers help a lot with that. I think mentors help a lot, especially with the

technology that's common in the classrooms. I think the mentors are a key piece.

Administrator 3: We usually don't like to just do a hardware use

workshop at the new teacher induction meetings. One of the sessions at the

schools during that week is someone in your school teaches you how to access

your e-mail, how to work your phone system, those kind of hardware, hard line

type things.

Administrator 4: No response to this question.

Administrator 5: I would say not a lot. I think what we do is we just hope that they have a cooperating teacher that helps them, and that they rely on their in-school resources. I think the assumption is that they come in knowing how to work the basic functions of the hardware and they typically do, in fact, they do to a fault sometimes where they go beyond our restrictive environment. They will assume it's okay to download software, assume it's okay to access web sites that might be blocked. They don't seem to have a difficult time mastering the hardware.

Administrator 6: We've made sure each one of the technicians in our department, there's seven of them now, that they've had the latest greatest equipment all the time. They're engineers, they know technology … but they looked at the iPad and they were like, "Not exactly sure how we're going to use this." So they need to think like a teacher. Just because someone's coming from college into a school district does not automatically mean they know how to use that technology.

Principal 1: We've got a library media center director whose role is primarily not only to run the library but to support technology. There are a couple of coordinators within the district that plant themselves in the different schools and have office hours so to speak for precisely that functionality.

Principal 2: We're really fortunate in our district that we have a help desk available to us, and we have a troubleshooter who comes to our building once a week. Oftentimes, they don't like us to do too much hardware troubleshooting on our own because things are supposed to be done a certain way according to district guidelines, so that can actually be a frustration for some.

Principal 3: Not enough. I think that the teachers again are provided a laptop and they're given the basics on how to utilize that but as far as utilizing laptops in the classroom or whatnot, a lot of that's done at site based. A lot of that's done with our LRC directors or experts that we have on staff that can help them utilize technology appropriately within our building. It kind of varies from building to building. It's very interesting but I think the district can provide more information to help our new teachers utilize the technology effectively in their classrooms beyond their basic knowledge.

Principal 4: No response to this question.

Principal 5: Yeah I think that's what the mentor is for. They need to know how to take attendance. If they are going to be sick tell them how to use the AESOP system, or how to log in to the website. We need to teach them how to log in to the intranet and how to do direct deposits.

Principal 6: Every classroom in our district has a projector and an ELMO, so that's basic. That is one of the things that they do receive in the induction piece. Their mentor also works through how to use those tools in the classroom. We also have two instructional technology people in the district who offer workshops and send out little newsletters that talk about Tip of the Week, and how to use this tool in this area. They're able to get that support as well.

Principal 7: We have an LRC, a learning resource center person who's very high tech, and she is definitely a go to person if something is not working in the classroom, and she's very on top of things as far as filling out the forms if something is not working, whether it's a printer or a bulb in an ELMO, or the projectors, the laptops. Then the Technology Department is just a phone call away, and they are great about coming over or doing something remotely for your computer.

16. What does your district do to prepare new teachers for mastering the use of technology for instruction in their classrooms?

Administrator 1: I think they do enough. I think it's just one component of a whole multitude of things that teachers need to consider and be given training in, in order to be effective in the classroom, so I think it's sufficient. Like I said, I think more training in the midst of their teaching is probably better than

the induction process. It should be embedded in their actual teaching practices

versus before the school year starts.

Administrator 2: Well, like I said, we have a session with our technology

coordinator at the beginning, during orientation. And then she follows up with

different initiatives. Also we have a math facilitator who works with teachers in

helping them utilize math technology, math programs, software types of things

for teachers. The literacy people also have stuff that they do. And the building

principals do too. I mean, everybody here is trying as hard as they can to make

the best use of technology to improve student learning. So I see the new teacher

induction program as part of a system, not a stand-alone.

Administrator 3: That's just through ongoing professional development,

usually elective on their part. We do have their one hour session at the beginning

of the year.

Administrator 4: You know, I'm not certain of that answer. For instance,

every teacher has a laptop that's stocked with the projector and the ELMO. And

many of them have Smartboards, but I honestly don't know how they're taught

to use those.

Administrator 5: Rather than workshops that are kind of where we bring

the whole group together and learn something, we provide job embedded, "just

in time" learning for teachers who sort of seek it out. We don't require it. We don't schedule workshops, but we hope to make new teachers feel comfortable and welcome to ask questions and to get some just in time support for their questions and their needs.

Administrator 6: As I said the technicians, I will ask them to spend some time with the tech coordinator or somebody else. Find out what apps they're using.

Principal 1: We've had an infusion of iPads and both the staff development and the discussion of apps and applicability for instructional purposes I think has slowed.

Principal 2: We don't do enough in our district. I don't think we have a big enough technology team to come out and actually help our teachers instructionally. We've added a person who started I think right at the end of the school year. I don't know what her start date is, but she is doing more with integration with technology into instructional settings. She is providing a lot of resources to us but not direct support, direct instruction. There's a web site we can go to and watch videos and learn more about what's available to us or what people are doing in other buildings that have been effective, but you really have to be self-driven to find that.

Principal 3: Are there opportunities throughout the school year for professional development in that area? The district does offer that but obviously that's time out of the classroom or it's time away from kids and so that definitely has a negative impact but there are opportunities for staff to get that professional development during the year especially our new teachers. Our tech department is very good and they provide very, very good professional development opportunities. It's just a matter of finding the ones that fit what the staff needs.

Principal 4: No response to this question.

Principal 5: They spend more time on that (functionality) than on instructional purposes for technology.

Principal 6: We also have a tech person assigned to our building, who comes through regularly to help problem-solve if there are any issues. Our resource center teacher, which is another name for librarian, is extremely tech savvy. She actually is totally our building tech leader. She's the number one go-to person. If she can't figure it out, teachers go to the help desk.

Principal 7: In addition to that hardware piece, we now have two people who are planning training, lunch and learns, and webinars for our i-Pad rollout, so it's better. It's just that we have such a huge district, it seems like it's never enough, but they're trying.

17. Does your district do enough to assist new teachers in the area of educational technology (functionality or instruction)? Please explain.

Administrator 1: I think so. I think it's just one component of a whole multitude of things that teachers need to consider and be given training in, in order to be effective in the classroom, so I think it's sufficient, and like I said, I think more training in the midst of their teaching is probably better than during the induction process. Embedded in their actual teaching practices versus before the school year starts I think is probably more effective.

Administrator 2: You know, I can't say it on authority. I think the new teacher induction program does. I don't know how the new teachers would perceive it overall. I do surveys all the time, and I always ask them, "What would you have liked more of? What would you have liked less of?" Sometimes I'll even send them a survey asking, "Here are some possible things we're thinking about including in next year's orientation. Which ones do you think are worth doing? Which ones do you think not so much?" The only one I've had is the instructional technology, which we added two years ago.

Administrator 3: No. I don't think we do enough to assist new teachers in any area. I think we are very thin on instructional support.

Administrator 4: In my opinion? Oh boy. Yes, I'd say yes.

Administrator 5: In my opinion, the district could do better by having

more instructional technology support. It's very difficult for one person in the

role, along with a new teacher induction facilitator, to do it. It's very difficult to

be able to develop relationships and be connected with so many teachers.

Administrator 6: No response to this question.

Principal 1: My sense is yes. There's a service center that is open for calls.

We can e-mail them. There's a tech rep that is assigned to our building who is

fairly responsive. There's a tech department that is well staffed and fully

responsive as well. The library media center person is well-adept in the systems

that we use.

Principal 2: No, but we're heading that way. We're starting a new …

rather than being a tech committee like we've had in the past, which consulted

and made more decisions regarding what technology should we have available

to us, this group is going to be looking more at the instructional component, so

we've been charged with looking for staff members in our building who are

those tech savvy people who can come in and now talk more about integration,

and training other people, and getting other people more on board and making

instructional decisions on behalf of the district but have representation from all

the buildings.

Principal 3: The thing is there's still a lot of unknowns. Again, you talked about laptops and labs that we have but they're certainly not always implementation of iPads. A lot of these would just kind of be thrown at them and it will be trial and error. There will be basic, again basic training given, some of it site based, some of it at district level, and then there'll be obviously opportunities throughout the year for teachers to attend trainings in specific apps to their content area that can help enhance their classroom but again, how many teachers can go? Will the new teachers be able to get involved in this and how much time will they be away from the classroom to get that?

Principal 4: No response to this question.

Principal 5: I would say they do enough because then again they do offer things throughout the first two years. Looking at the audience they are just being bombarded with a lot of new stuff. I guess it's probably not the best time to start to talk about how to use this instruction. Probably it's more essentially at that time to learn how to use email and how our systems work and things like that.

Principal 6: I think so. I think we're just starting to really dig in to instructional technology. I think they're laying the foundation for that. I'm sure they'll only grow with time.

Principal 7: I think they try to. I do think it's not enough manpower, but I think they're capable, and they're very willing to help. It's just that they're spread very thin.

18. Is there anything you would add to the technology component of the new teacher induction process?

Administrator 1: I really think that excellent teaching can be done with a chalkboard and a piece of chalk. I think that it's done at a higher level, and it can be more diversified with technology, and so I would like teachers to keep the components of quality teaching foremost in their mind and then figure out how technology can make that even better.

Administrator 2: I would like to add more time for it.

Administrator 3: I would. I believe we need more instructional support in the district, instructional coaches, instructional support for teachers. We don't have all the middle people that should be our instructional coaches and our classroom support that can go out and reinforce, go out and support.

They may come to a PD here for one day, but then they go back to their building. I'd love to have instructional support that a teacher could say, "Hey, I'm so glad you had this. I learned this here. Give me a week, I want to go back, I

want to practice, I want to apply it. Then, could somebody come out and watch me and coach me?" That's what we need.

Administrator 4: I think it will have to be done eventually that there will have to be more on iPads. We're gaining more and more iPads in the district, but I don't know. I don't think that's been a deficit up until this point.

Administrator 5: I think I would really like to leverage the interest in social media with the new teachers, and I'd like for them to develop a personal learning network and utilize some social media tools. So say if we used Edmodo for discussion groups to help the teachers connect with one another throughout the year online. I would help them connect with each other using Twitter. I think because we're such a big district it's hard to say that I would add more time, but I would like to facilitate a learning community using online tools and then also I guess I would like to do some more face-to-face with them not so much as a workshop to teach them anything specific but just to kind of build relationships with them so they understand how I can support them, and I think that's important for them to kind of see me more than once and not just in that first couple of weeks before school because they're being talked to from everybody in the district. That's so overwhelming. I just want to kind of connect with them after they've been in the building for a couple of months and now they might be

ready to sort of try something new or get to know some new tools or something

like that.

Administrator 6: No response to this question.

Principal 1: Interestingly, we went away from smart boards in this

district. I always thought that one initiative that I started in a prior school

because we had smart boards in every classroom was connecting via the smart

board to other classrooms. It can be done with other technology but I think that

the wider communication to the world, the video conferencing, the alignment

with not only the learning of language but the learning of culture, the learning of

different systems and whatnot in other classrooms, in other states, in other

countries, I think is underutilized. I think that's a fabulous technology that we

just don't use. We don't even connect with other classrooms in the district.

Principal 2: You know, what would probably be good for the new

training days would be to actually spend time immersed in the available

technology to explore and ask questions of the people who have more of the

answers. I think that that would be really helpful, so if you had new hires in an

area where they were able to use the iPads, have access to interactive

whiteboards, get into our student information system, which has so much

available to us that none of us are using it to its full capacity, have access to the

web programming that we use here to maybe do basic building of their web

pages, all of that, and then have people on deck to answer their questions

immediately I think would probably be really exciting and helpful.

Principal 3: We're starting to see more and more teachers come in with,

especially with tablets and iPods and iPads and things like that that they're

utilizing. They have experience using that over some people in the building who

have been here 15 to 20, 30 years that haven't had that experience so it varies at

different levels. They come in with some experience using that technology but

maybe not at an educational level, how to utilize it in their classroom effectively

so I think there should be more use or more professional development provided

in those areas for our new teachers.

Principal 4: Yeah. I think that everybody should do more. I think that

until we get to a point where we're ... I mean, effective professional development,

which is really what we're talking about when we're talking about new teacher

induction, it's PD, and so, yes, we should be doing more. But I think one of the

things that we have to be very, very mindful of is how much are we going to put

on the plates of teachers. We're all working on the Common Core State

Standards. We're all working on integrating the Danielson Framework, and

there's just so much on teachers' plates, and I think it's hard to ... well, and why

does technology need to be tertiary in terms of level of importance?

Principal 5: I would look more at the use of technology in the classroom.

Specifically like with iPads and other things like that. Our district's just going to

be rolling out lots of iPads into the schools. We are going to be giving 150 in next

few weeks and that's across the district. Certainly that's something that the

district mentor program could have something related to because now that will

be a consistent piece of our education for years to come.

Principal 6: I guess now that every school is receiving a set of iPads that

might be something that should be added. Just so that teachers, when they are

walking in the door, they know some simple applications they could use with the

students. Then know that they have resources to go to if they want to go beyond

just kind of the basics. Using the iPads as an instructional tool, not as a game

player is what they need to know.

Principal 7: No. I'm really excited that we received six carts of iPads just

at the end of last week.

19. Is there anything else that you would like to add to this discussion?

Administrator 1: No response to this question.

Administrator 2: I'd just like to say, I think the big deal that's missing is time. Maybe another thing would be, we have mentor selection criteria, and I work with leadership every year to go over those and make sure they're clear. For the most part, I think principals follow those guidelines, and use them. But I think sometimes, because in our district principals select the mentors. That's something I've not been able to get away from. In best practice research, it talks about a pool of mentors that are already trained, and matching mentors to the new teachers as they get hired. That's not what happens. What happens is, as people get hired, the mentor is just picked by the school principal. And I train all of the mentors. The mentors go through two days of foundational training, and then I have follow-ups for the mentors.

Administrator 3: No response to this question.

Administrator 4: No response to this question.

Administrator 5: The other thing that I think is important is we have a cooperative agreement with ISU so we have a group of student teachers that work in our district. I meet with them a couple of times for half day times together where we work on some things, and those teachers who are new to our district that were part of the ISU cohort I feel like they have a leg up a little bit because I've been able to do some fun stuff with them and work with some new

tools and then talk with them about some of the experiences they've had in the classroom. I make a connection with them and we build a relationship so I think those teachers that are part of that ISU student teaching group that we ultimately end up hiring feel much more comfortable with me. I think they feel much more comfortable with the use of technology because they've had that time to explore those kinds of tools.

Administrator 6: No response to this question.

Principal 1: No response to this question.

Principal 2: No response to this question.

Principal 3: No response to this question.

Principal 4: No response to this question.

Principal 5: I guess the only thing kind of along the same vein is my understanding now of our schools that use PBIS as a school and classroom management system. My understanding is now the last few schools are all on board with that as well. That would be another thing that would make sense because now it doesn't matter where you are being hired; PBIS is going to be a part of your life. That that would be another piece that should have a focus for new teachers.

Principal 6: No response to this question.

Principal 7: No response to this question.

Data Collection Summary from the Semi-Structured Interviews

To summarize the six district-level administrators' and seven principals' interview responses, Tables 10 and 11 were created. While the following tables do not represent every comment made during the semi-structured interviews, the information presented serves as a representative sample of those data displayed previously in this chapter related to the areas of new teacher induction, Generation Y teachers, and instructional technology professional development for new teachers.

Table 10

Summary of Responses from District-level Administrators to Interview Questions

	Admin 1	Admin 2	Admin 3	Admin 4	Admin 5	Admin 6
Question 1 – Tech skills in interview	No. Looks for teaching attitude and mentality, not skills	Does not participate in interviewing.	No. Looks for tchg. skills, methods, differentiation	No. These can be taught after hiring.	No. Looks for strong instructional practices.	Does not participate in interviewing.
Question 2 – Delivery of NTI	Differentiated for new Ts. Mentors	5-day job-differentiated orientation. Mentors. Curric. sessions; tech intro	5-day program; Nuts/bolts; Curric.; cultural	Intro to IEP program on computer; Progress monitoring	Extensive mentoring program	Not familiar with the NTI program
Question 3 - Planning of NTI	Small part; NTI facilitator's role	Plans all of it.	Works with NTI facilitator to plan	Plans for new student serv. staff only.	No role in planning	No role in planning

Question 4 – Conducting NTI	Provides into; speaks on the history, expectations	Conducts all NT workshops.	Department conducts a full day of workshops	Conducts portion related to her department	One hour to give tech overview	Not involved in conducting NTI
Question 5 – In other districts	No Experiences	No Experiences	Delivered staff development in curr.	Some, but very minimal	No Experiences	No Experiences
Question 6 – Are you pleased with NTI	Yes, it has been successful. Thorough process	Yes, for the most part, with some opportunities for improvement	Yes, and it is evolving every year	Yes. It teaches the expectations of the district	Yes. The mentoring is extremely important	No opinion on this topic
Question 7 – If no, any changes	No response	No response	No response	No response	More than an hour of technology training	No response
Question 8 – Basic areas of concentration of NTI	No response	Curriculum, Danielson, Using data, reflection, familiar with tech.	Tech piece, nuts/bolts of district, ins/benefits, union, curr needs, luncheon, sp. ed., bilingual, mentoring	Classroom management, cultural competency, differentiated instruction	Curriculum classroom manage.	No response
Question 9 – Eliminate anything	Yes, 5 days is a lot, managerial things,	No	Yes, cut back from the 5 days	No	No	No response
Question 10 – Anything to be increased	Classroom manage, instruct. strategies assessment,	More time with mentors	No	No response	Greater connection with technology tools	No response
Question 11 – Extend past beginning of school	No response	Yes it goes on all year, a second year is optional	The 5 days are required	Yes. 10 after school meetings during year	Yes, it is a full year	No response
Question 12 – Characteristics of Gen Y	Free spirits, not as loyal, more globally & culturally sensitive, more socially minded	Assertive and enthusiastic, passionate	Tech-savvy, naïve, a bit short-sighted	Entitled, high expectations of others, Tech-savvy	Risk-takers, confident, innovative	comfortable with technology, introverted
Question 13 – Implications on NTI	More differentiated PD for them	More mentor time,	More on the parameters of using technology in the district	No response	They have a lot of enthusiasm, they are open	Instructional technology
Question 14 – Ready to	No. Bringing tech skills is	Yes, the younger	They are more open to tech	Not all of them	Yes, they bring a lot	No. The younger

use technology at first	not enough, not transferring to instruction	teachers are less intimidated by the technology	but not savvy enough to use it to teach		of great uses of technology to the classrooms	teacher request more PD
Question 15 – What does district do re: functionality	Not sure, but we have a staff member for this	Yes, it is handled for them	We don't like to do a hardware wkshp at NTI, but there a little of that	No response	Not a lot, we hope that the mentor can assist	Yes, makes sure that there are technicians to assist new teachers
Question 16 – What does district do re: instruction	They do enough. Training should be embedded all year long	There is one session at NTI, others help too,	One hour session to start, also done through ongoing PD	We have the hardware but not sure if they are taught to use it	It is job embedded, not through workshops	Technicians will spend some time with teachers
Question 17 – Does the district do enough	I think so, It is just one component of their training	I think the NTI program does enough	No we do not. We are thin on instructional support	Yes	No, the district could do better. Not enough staff for training and support	No response
Question 18 – Anything to add to the tech component of NTI	Would rather focus on good teaching	Add more time for technology in NTI	Need more instructional support for teachers maybe with coaches	More will have to be done with tech eventually due to increase in iPads	Need more social media with new teachers	No response
Question 19 – Anything else to add to discussion	No response	Need more time, need a pool of mentors which are not necessarily selected by principals	No response	No response	Continue the relationship with one of the state universities as it appears to be effective	No response

The Rubric of Essential Technology Conditions (RETC), which was created by the State of Nebraska, was used to develop the technology-related semi-structured administrator questions (questions 1, 14-18).

The RETC provides a framework identifying a set of essential conditions and provides corresponding indicators of progress in meeting those

conditions. It supports the planning process by allowing schools to conduct a systematic assessment of their progress in integrating technology against a standard established by a statewide group of educational technology leaders. (Steckelberg, et al, 2008, p. 82)

When asked about the hiring of new teachers (question 1) four of the six district-level administrators (67%) do not ask questions related to technology skills during the interview process (the other two do not interview new teachers). When asked if the new teachers are ready to use technology at the start of their careers four of the six administrators (67%) said "No" the teachers are not ready (question 14). When asked questions related to preparing new teachers for the functionality and instructional uses of technology, the district-level administrators were generally aware that there are district employees who handle the PD for these two areas. In addition, the majority of these administrators stated that the district does enough to support new teachers with technology at the start of their careers. Finally, half of the administrators stated that more staff is needed to help support teachers with technology. In examination of the district-level administrators' answers to the technology related questions, one can summarize that this school district generally is in the "Significant Progress" stage of the Technology Administration and Support stage

of the RETC because this district employs one full-time instructional specialist

without a staff to support her.

The district is in the "Beginning" stage in the Leadership area of the

Educator Competencies and Professional Development portion of the RETC

because, based on their interview responses, they display a limited awareness of

the benefits of technology in instruction (see Appendix D for the complete RETC

document).

The nine *Illinois Standards of Quality and Effectiveness for Beginning Teacher*

Induction Programs (2008) were used to assess the new teacher induction program

in use by the school district being studied in this research project. These

standards, developed by the Illinois State Teacher Certification Board in

December, 2008, were designed to help educational leaders reflect on the best

practices and effective structures necessary to design and deliver a high quality,

effective new teacher induction program.

Interview questions 2 through 11 were used to determine the

administrators' thoughts and understanding of the new teacher induction (NTI)

process in their district. In summary, four of the six district-level administrators

demonstrated a basic understanding of the process, one administrator possessed

a very strong understanding of the process, and one administrator possessed no

knowledge of the process. When asked questions related to the planning and conducting of the NTI process, five of the six administrators stated that they had either minimal or no involvement in the process, while one person stated that she does all of the planning and facilitating for the new teachers. Finally, a couple of the administrators would like to see the NTI process cut back from the five days, but generally, five of the six administrators were pleased with the NTI process, while one administrator had no opinion.

Numerous resources were used to define Generation Y for the purposes of this research study and to develop the interview questions. When asked for the characteristics of Generation Y, the most common answers among the administrators were that they are technologically adept and they embrace technology, and they appear to be self-centered and somewhat naïve. Interestingly, four of the six district-level administrators (67%) answered in the negative when asked if the new teachers are ready to use technology in their classrooms when they are first hired (question 14). This appears to contradict their answer to their knowledge of the characteristics of Generation Y teachers. If the district-level administrators are aware that their new, technology savvy teachers are not ready to incorporate instructional technology into their teaching, then is enough professional development being provided in this area?

Additionally, the administrators were asked if these characteristics had

implications on the NTI process. Although they did not have much to say in this

regard, there was some consensus on the need to provide more technology PD

for new teachers.

Table 11

Summary of Responses from Principals to Interview Questions

	Principal 1	Principal 2	Principal 3	Principal 4	Principal 5	Principal6	Principal 7
Question 1 – Tech skills in interview	Yes. Software and hardware	Yes. Integrate with lessons	Yes. Comfort level	Yes. Extend beyond simple knowledge	No. Assumes they know tech.	Yes. Asks how it enhances teaching	Yes. Asks basic areas of tech use
Question 2 - Delivery of NTI	Week-long orient.; Mentors; 2nd year option	5-days; Mentors; Curriculum Basic tech training	Not familiar with NTI. Some summer training	Mentor program	Week of training; Mentors; Work in schools	Week-long training; Additional during year; Mentors	Intensive week before school; workshops
Question 3 - Planning of NTI	Selects mentors	Plans for 3 hour initiation in the school	Plans for half-day initiation in the school	New to district. Did not plan.	Select mentors	Plans for afternoon initiation in the school	Plans for initiation in the school
Question 4 – Conducting NTI	Orientation to school	None; Attends luncheon	None	None	Orientation to school; Attends luncheon	Orientation to school	Orientation to school
Question 5 – In other districts	Some involvement but less than this district	Some but on a smaller scale	Similar experiences to this district	Similar experiences to this district	Similar experiences to this district	Not a principal in previous district	No Experiences
Question 6 – Are you pleased with NTI	Yes. It is supportive	Yes. Provides Intensive training	Yes. It covers all areas	Yes. Provides an interesting experience	Yes. Ts come with good understanding to start	Yes. They do a great job	Yes. Very pleased.
Question 7 – If no, any changes	No response	No response	No response	No response	No response	No response	No response
Question 8 – Basic areas of concentratio	Class manage, Curric,, ELL,	Curric, technology, benefits, safety	Union contract, Curr and instr.,	New to district. Not familiar yet	Reading, student data, taking	Dist expectation ,history, reading	Intro to key people, website, sub system,

n of NTI	financial literacy, union contract	training, sp. ed., RtI	business issues, bus tour		attendance, class management, parent communic	and math, CCSS, sp. ed.,	taking attendance, culture, math, English, CCSS behavior manage
Question 9 – Eliminate anything	CCSS	No	No	No response	No	Some of the business pieces	No
Question 10 – Anything to be increased	Cross-curr instruction	No – but ask the new teachers this quest.	Technology	No response	No	Special ed process, RtI, ELL	Technology
Question 11 – Extend past beginning of school	Yes, it goes through the entire year, monthly meetings	Yes, after school training	Yes, it goes all year to meet with mentors	No response	Yes, it goes on all year	They have paperwork, lessons to turn in, reflection logs all year	Yes, mentor works all year with new teacher
Question 12 – Characteristics of Gen Y	Passionate, Technologically adept, see different perspectives, open to diversity, idealistic, confident	Student focused, embrace technology, fast learners,	Need hand-holding, need assistance	Understand electronic media, no fear of technology	Need immediate gratification, lots of energy, student-centered,	Comfortable with technology,	High comfort level with technology
Question 13 – Implications on NTI	More PD on the multi-cultural piece, ELL	More on technology PD	Adjust the NTI based on principal feedback	More on technology PD	More on Financial security	More on technology PD	More to help with the shock of the first year of teaching
Question 14 – Ready to use technology at first	Yes, I think so.	Yes, it is part of the interview. They are not afraid of technology	Yes.	No, I have not seen that yet	Yes	Yes, I think so	Yes, they are taking right to it

Question 15 – What does district do re: functionality	LRC director to help with this	Help desk is available	Not enough, Ts only given the basics, LRC directors help	No response	Yes, that is what the mentor is for	There are two technology people in the district who offer workshops	LRC director helps with this, tech dept is a call away
Question 16 – What does district do re: instruction	Infusion of iPads but PD has slowed down	We do not do enough, teachers need to be self-driven	Yes, PD is offered, but it takes time away from classroom, tech dept is good, but hard to find PD that fits	No response	More time is spent on functionality than on instruction	There is a tech person, LRC teacher does more	There are two people to assist with this but that's not enough staff for this
Question 17 – Does the district do enough	Yes, there is a service center for calls, and a LRC person at our school	No, but we are headed in the right direction with a new tech committee	No, not enough for implementation of laptops	No response	Yes, they offer things during first two years	Yes, we are just starting to dig into technology	No, they try but there is not enough manpower
Question 18 – Anything to add to the tech component of NTI	More use of Smart boards and connecting to other classrooms	More time for teachers to be immersed in available technology	More PD needed for use of technology	More PD needed for use of technology	Look more at the use of technology in the classrooms	More PD for using the new iPads	No. Excited to be receiving new iPads
Question 19 – Anything else to add to discussion	No response	No response	No response	No response	No response	Need more training on the use of PBIS for all schools	No response

When asked about the hiring of new teachers (question 1) six of the seven principals (86%) do ask questions related to technology skills during the interview process. This is contrary to the answers provided by the district-level administrators on this same question. When asked if the new teachers are ready to use technology at the start of their careers six of the seven principals (86%)

said "Yes" the teachers are ready (question 14). When asked questions related to

preparing new teachers for the functionality and instructional uses of

technology, half of the principals stated that the Library Resource Center teacher

provides the PD for new teachers while the other half stated that there are

district-level employees who do this (one principal is new to the district and did

not know the answers to these questions). Finally, three of the seven principals

believed that the district does enough to assist new teachers with technology

while the other three of the seven believe that the district does not do enough

(the new principal abstained from answering this question). Six of the seven

principals stated that some form of PD is still needed for new teachers in regard

to the use of smart boards, iPads, etc. in the classrooms.

In examination of the principals' answers to the technology related

questions, one can summarize that, consistent with the district-level

administrators, the district generally falls in the "Significant Progress" stage of

the Technology Administration and Support stage of the RETC. This summation

is based on the full time instructional technology specialist position as well as

some schools having technology adept LRC teachers. Based on the principals'

responses regarding professional development in technology, the district would

fall in the "Beginning" stage of the Educator Competencies and Professional

Development portion of the RETC. This summation is based on these interview

data which indicate that the large majority of principals believe that the new

teachers need more PD. This also is consistent with the district-level

administrators' answers regarding technology professional development (see

Appendix D for the complete RETC document.)

Interview questions 2 through 11 were used to determine the

administrators' thoughts and understanding of the new teacher induction (NTI)

process in their district. In summary, six of the seven principals demonstrated a

basic understanding of the process while one possessed no knowledge of the

process. When asked questions related to the planning and conducting of the

NTI process, two of the seven principals referred to their choosing mentors as

their role in planning, four principals referred to providing some in-school

initiation, and one was new to the district this year. In terms of conducting NTI,

the principals were fairly consistent in either providing an orientation to the

school or doing nothing. Finally, all seven of the principals were pleased with

the NTI process, and a couple of them would like to see more technology added

to the process.

When asked for the characteristics of Generation Y, the most common

answers among the principals were that they are comfortable and adept with

technology, and that they embrace it without fear. Additionally, the principals

were asked if these characteristics had implications on the NTI process. Four of

the seven (57%) stated that the district should provide more PD on technology

use in the classroom.

Artifact Collection

At the same time as the semi-structured interviews were taking place,

artifacts related to the district's new teacher induction program were being

collected and reviewed. The following is a list of the artifacts along with some

related information about each item:

1. New teacher induction handbook: Each new teacher received a 25 page

handbook titled "Welcome to School District XX's New Teacher Orientation."

The dates for this orientation were listed as August 6-13, 2013, and the cover

page stated, "It is our hope that our mentor/induction program will provide

meaningful information to help you continue on your learning journey as an

education professional." Page 2 of this handbook stated the district mission, the

strategic goal map, and the district's core values. The next six pages detailed the

agendas for each of the five days of the new teacher induction meetings. The

week started with introductions and speeches by certain district-level

administrators including the superintendent and members of his cabinet.

On the first day there also was a welcoming luncheon for the new teachers, administrators, mentors, and school board members. In addition, the new teachers were divided into job-alike groups (e.g., K-2 teachers, special education teachers, middle school teachers, school psychologists, etc.) for differentiated break-out workshops during the week. The rest of the daily agendas were broken into workshops related to the literacy and mathematics curricula, diversity, classroom management, RtI, cultural competency, and the "nuts and bolts" of working in the district. There also was a one hour workshop on instructional technology. Finally, the new teachers were given tours of demonstration classrooms that were set-up purposefully as effective models, and time was allocated to work with mentors and principals.

The next portion of the new teacher induction handbook was dedicated to detailing the mentor selection process. There was a rubric for mentor selection, a list of the mentor selection criteria, and a mentor job description. The final section of this handbook had forms that mentors and their protégés should use to create professional development action plans which would be based on the Danielson Framework for Teaching (Danielson, 2007). There also were forms to assist the new teachers in analyzing student work and planning differentiated

lessons based on student needs, and there were lesson observation templates and

reflection logs for the new teachers and their mentors.

When comparing the details of the new teacher induction handbook to the

nine *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction*

Programs (2008) (see Appendix K for the complete document), one can see many

connections. The following standards are met through this week-long new

teacher induction program, and other standards are met through the new teacher

workshops that are held throughout the school year.

- Standard 2 – Program Goals and Design because the program, as detailed in the handbook, focuses on beginning teacher development, support, retention of new teachers, and to improve teaching performance. Although there is no specific mention of improved student learning in the program goals, the design of the program incorporates professional development in specific curricular areas, with the objective of improving student learning.
- Standard 3 – Resources because the program leadership allocates sufficient, sanctioned, protected time essential for high quality induction and mentoring.
- Standard 5 – Mentor Selection and Assignment because the new teacher induction handbook establishes clear guidelines for mentor selection as defined in this standard.
- Standard 7 – Development of Beginning Teacher Practice because the program design, as established in the handbook, provides for regularly scheduled learning opportunities, starting with an orientation at the beginning of the school year, and continuing throughout the entire year. Also, time is allotted to ensure the quality of the process (e.g., analysis of student work, observations, and reflective conversations).

2. Calendar of events for new teachers: September through April: A

calendar of events was created by the district's new teacher induction facilitator,

and it was used to delineate the new teacher activities scheduled once the school

year had started. New teachers were divided into two distinct groups – Level

One was for new teachers who have two or less years of teaching experience

before being employed by this district and Level Two was for new teachers who

have more than two years of teaching experience before being employed by this

district. The new teachers and their mentors were given a calendar of events for

the entire school. The Level One teachers were required to attend all of the

planned events including one full-day workshop on classroom management and

nine after school workshops. The Level One Mentors were required to attend

four after school workshops and one half-day workshop. The topics for these

workshops included learning communities, cultural competency, parent

communication, classroom management, and other topics related to the work of

new teachers and mentors. Generally, Level Two new teachers and mentors

were invited to all of the Level One workshops, but were only required to attend

the "kick-off" workshop in September which took place at the end of a school

day.

This calendar of events clearly laid out the required and optional activities

for the new teachers and their mentors, and it related to the following new

teacher induction standards as detailed by the State of Illinois:

- Standard 1 – Induction Program Leadership, Administration, and Support because the calendar establishes the responsibilities of each district-level administrator in conducting induction sessions.
- Standard 2 – Program Goals and Design because the calendar provides the organization of a planned process for program implementation for all new teachers.
- Standard 3 – Resources because the program leadership allocates sufficient, sanctioned, protected time essential for high quality induction and mentoring.
- Standard 6 – Mentor Professional Development because the calendar clearly establishes when and for how long the mentors will participate in professional development., and the calendar organizes the activities around the central concept of a mentor learning community.
- Standard 7 – Development of Beginning Teacher Practice because the calendar details the regularly scheduled learning opportunities for the new teachers.

3. Mentor handbook: Each mentor received a comprehensive Mentor

Handbook. This large, 3-ring binder, which was titled *2013-14 Mentor Handbook*

was approximately four inches thick and it was divided into seven chapters:

- Mentoring/Induction Nuts and Bolts – This section included a mentor job description, new teacher expectations and responsibilities, expectations for the mentor/protégé relationship, and the four domains from Charlotte Danielson's Framework for Teaching (2007).
- The Nature of the New Teacher – This section included information regarding the professional characteristics of teachers, the characteristics of the different stages of teacher learning, and an article about the phases of the first year of teaching.

- Working with Adult Learners – This section included topics directly related to adult learners, such as "the difference between adult and child learners" and "the new teacher as an adult learner."
- Exploring the Mentor's Role – This section detailed the roles and characteristics of effective mentors, the research on being an effective mentor, building a trusting relationship, and different styles of mentoring.
- Mentoring Challenges – This section provided the mentors with two case studies. One was about building a relationship, and the other one was about confidentiality. There also was a list of guidelines for interactions between mentors and new teachers.
- Coaching Strategies – This section provided resources for such topics as coaching vs. evaluation, the coaching process, mentoring conversations, coaching behaviors, effective listening, and linking the Danielson Framework to the needs of the new teachers.
- Resources for Mentors – This section provided additional journal articles, forms, charts, and diagrams all related to mentoring new teachers.

The mentor handbook aligned perfectly with Illinois Standard 6, Mentor Professional Development. It allowed mentors to "participate in an ongoing professional learning community that supports their reflective practice and their use of mentoring tools, protocols, and formative assessment, as well as relevant district tools and standards" (Illinois State Teacher Certification Board, 2008, p. 8).

Observational Data

Also during the first two months of the data collection process, observations of one mentor meeting and two new teacher induction meetings

took place. The observed mentor meeting was designed to train mentors on how to deal with new teachers who are experiencing difficulties during the first few months of their new careers. One of the new teacher meeting observations took place during an all-day training session on classroom management, and the other new teacher observation took place during and after school workshop on building classroom learning communities.

For all three observations, a T-Chart template was utilized to record information. This T-chart consisted of a page with a dividing line down the middle to separate the *descriptive notes* (portraits of the participants, a reconstruction of dialogue, a description of the physical setting, accounts of particular events, or activities) from the *reflective notes* (the researcher's personal thoughts such as speculation, feelings, problems, ideas, hunches, impressions, and prejudices). Table 12 details the descriptive notes from the T-Chart created during mentor meeting which took place on October 3, 2013.

Table 12

Descriptive Notes from Mentor Meeting, October 3, 2013

Descriptive Notes – Mentor Meeting October 3, 2013
These are the mentors for the Level 1 New Teachers. The room was set up with rectangular tables and 55 chairs. 50 mentors – 47 women and 3 men.

Facilitator starts on time at 4:00. Welcomes the mentors, tells them that they are doing very important work.

Activity 1 - Reflective activity. Facilitator asks mentors to complete this honestly as they reflect on their new relationships with their protégés. It is a quiet, independent activity lasting about 10 minutes.

After 10 min. Table talk about their new relationships.

Activity 2 - Back in whole group. Facilitator asks mentors to check the items on a list that they would like to get better at. Then, of the items checked in activity 1, she asks them to circle 1 or 2 to improve upon during this mentoring year. They set some professional goals for these couple of items.

Activity 3 - Facilitator - Focus on some of your strengths from the checklist. Then, list some opportunities for improvement and write strategies that might work toward improvement.

Table sharing as a follow up to activity 3.Teachers share with their table mates.

Activity 4 - Facilitator leads a discussion of how to deal with a new teacher who is experiencing difficulties. She talks about the importance of trust in these situations, and she asks the mentors to write about what they have done so far to build trust with their protégés. The Facilitator talks about how trust is "beyond congeniality." It is where a person feels comfortable opening up with you and sharing, knowing that what they say will not go any further.

Mentor Handbook: Each mentor had received a large, 3-ring binder which they brought with them. This was titled *2013-14 Mentor Handbook*. The binder was approximately 4 inches thick and it was divided into 7 chapters:
- Mentoring/Induction Nuts and Bolts
- The Nature of the New Teacher
- Working with Adult Learners
- Exploring the Mentor's Role
- Mentoring Challenges
- Coaching Strategies
- Resources for Mentors

Standard 6 (Mentor Professional Development) of the *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs* (2008) requires that mentors receive professional development prior to their work with beginning teachers, and that they continue to receive training over the course of their work with new teachers. The observation of the mentor meeting that took place on October 3, 2013 clearly provided evidence that the mentors in this district are receiving ongoing training in mentoring. There are three specific criteria from Standard 6 that were observed being met during this observation. These criteria are:

- Mentors participate in an ongoing professional learning community that supports their reflective practice and their use of mentoring tools, protocols, and formative assessment, as well as relevant district tools and standards;
- The mentor learning community meets for regularly scheduled professional development and fulfills a number of purposes to deepen mentoring skills and advance induction practices; and
- Mentors engage in self-assessment and reflect on their own development as teachers and mentors.

Considering that this meeting was one of four mentor meetings scheduled throughout the year, the district certainly has created an ongoing professional learning community for these teachers. In addition, there was much discussion among the mentors fostered by the facilitator at this meeting. The extensive and comprehensive mentor handbook, which they each have, is another example of

the commitment the district has toward successful mentoring. Included in this

handbook was an article that aligned well with the research on Generation Y

(Pew Research Center, 2010).

Activities 1, 2, and 3 clearly were designed for these mentors to reflect on

their practices and work toward strengthening their mentoring skills. Finally,

Activity 4 was designed to sharpen the mentors' skills in developing trust with

their protégés, and assisting the mentors in improving their communication with

their protégés. The only piece relating to this research that was not included in

any of the mentoring PD was instructional technology.

Tables 13 and 14 detail the descriptive notes from the T-Charts created

during the new teacher meetings which took place on October 10, 2013 and

November 7, 2013 respectively.

Table 13

Descriptive Notes from New Teacher Meeting, October 10, 2013

Descriptive Notes – New Teacher Meeting October 10, 2013
Presented by a retired district principal. She spent her entire career from student teaching to retirement in this district.
There are 27 Level 1 new teachers in this session. 25 are women and 2 are men.
There is a variety of teachers from K-8, sped, bilingual.
The majority are first year teachers. A few were veterans from other districts, but first year in this district. This is half of the new teachers hired this year. A repeat of this workshop is planned for next week with the other half.
The focus for today is class management and discipline.
They have a workbook called *Successfully Teaching Challenging Students* - One Day Seminar by Rick Dahlgren, Brett Malas, Joanna Faulk, Melanie Lattimer. Published By Center for Teacher Effectiveness.
Started with some personal reflection in workbook.
Paper folding activity - One word each section - beliefs, self-control, teach-to's, classroom arrangement, refocus, refocus form, St/Teacher relationships, implementation.
Some teachers shared some quick discipline stories.
Presenter then actually started the workshop with a book intro.
Then discussed three different kinds of kids:
Always kids - These are the good ones! Well-disciplined, supported from home, engaged, hard working.
Sometimes kids - 80% of class. Inconsistent, dependent on teacher, can display low level behaviors. take up a lot of the teacher's time.
Never kids - Never do what you want them to do. Always present in school! The "stinkers." Unsupportive home environment. But, school is the safe, predictable place and maybe only nurturing place. We educators are their best shot.
Challenge for the teachers: Paradigm shift in teaching.
Build relationships with kids. Hold class meetings. Embrace the Sometimes and Never kids. Find something special and embrace it.
Caring is the key - that needs to be the philosophy.
"Fair does not mean equal."
Don't be Authoritarian or Permissive. These are the outliers for disciplining.

Discipline the behavior, not the student.

Conflict with students is inevitable, but combat is optional. Don't get into power struggles with kids.

You have to TEACH kids how to behave.
Teaching behavior - Climate and culture of your classroom is as important as teaching math and reading.

Know your kids. Know what is going on in their lives to better understand why they behave the way they do.

Discipline with Dignity - Good book for teachers.

Another good book for new (and even veteran) teachers is *Time to Teach*.
This book teaches the "ReFocus" strategy for classroom behavior for the 80% of the kids who are generally well-behaved. It is not necessarily for BD kids. It goes like this:
1. Student is disrupting
2. Teacher asks 1. Am I able to teach? 2. Are others still able to learn? 3. Is this child still able to learn? If yes to any of these, keep on teaching. If no, move to #3.
3. State a "start-up request" meaning tell them what to do, and say please ("Please use quiet hands.") Do Not use a "shut-down request" ("Stop tapping the desk.")
4. Kid stops? Great. Does not stop, send to the "ReFocus" area either in the classroom or in another room. Kid completes a little form, and returns to desk.
5. Teacher quietly says thank you without making a big deal.
6. Teacher meets with student later to review the form and what happened.
All of this must be taught to kids and reinforced in class meetings. The teacher must train the kids how to do this refocusing. Talk with the kids about it being ok for a refocus moment, because it is just like learning math or reading. It is not a punishment, just a way to "refocus." This is especially true if the teacher uses it in a matter of fact kind of way.
If child says "No" to refocus, teacher should keep teaching and repeat "refocus."
Praise as much and whenever you can. Avoid sarcasm.
Say Please and Thank you to kids all the time, even during discipline events.
All of this falls within the rules of the school such as be respectful, responsible, safe, helpful, etc.

Teachers - You send a kid out of the room to the office for discipline and you have lost your power. The office is a great show for kids. Lots to see.

When a teacher's kids misbehave in other areas of the school, it needs to be the teacher's problem, too. They are her kids. They can embarrass her. She needs to address that with them. They represent her when at music, recess, etc.

See misbehavior - Don't ask why they are doing it. Make a statement - "Stop doing that"

Discipline must be related to the behavior - punishment must fit the crime.

Focused on "Teach-To's"
- Model - I do
- Lead - We do
- Test - You do

She says that as a principal she never dealt with discipline because they were "their kids." Meaning the teachers kids.

Sharing time. Many are sharing.

The descriptive notes taken at the two new teacher meetings can be evaluated through the lenses of the three conceptual frameworks used in this research study: *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs* (2008), the Nebraska RETC, and the research on Generation Y. Because these new teacher meetings focused mainly on the topics of classroom management, mentor relationships, and family communication, the Illinois Standards for Induction will be the main framework used for this summary. The other two will be touched on briefly.

Table 14

Descriptive Notes from New Teacher Meeting, November 7, 2013

Descriptive Notes – New Teacher Meeting November 7, 2013
62 new teachers organized at specific tables such as K, 1, 2; 3, 4, 5; middle school, special ed. Etc. This is a required meeting. There is a group of about 5 new teachers who were unable to attend. They will be required to make this up. Facilitator starts on time and praises the Teachers for being on time and so professional. She shares a graph that shows how Nov. is the month of "disillusionment" because it is so busy for teachers, and hard for new teachers. Created by Ellen Moir at the New teacher center. Facilitator – focus on communication today. With Mentor and with families. Activity 1 – document to work on related to mentors. Think about issues bothering them or issues that they have been working on since start of year – issues that have been brought to mentors or thinking about bringing to mentors. How did mentor respond? How open was the mentor? How well did the mentor listen and assist? Facilitator – Switch gears from communicating with mentor to an article to read about Communicating with Parents. They are asked to reflect on the aspects of the article that were particularly meaningful to them. Communicating with "Families" (not "parents," b/c not all kids live with their parents). Teachers asked to reflect on a couple of issues they have dealt with regarding family communication – the good and the bad situations. Facilitator - Closing activities: She led a final discussion about Danielson Domain 4. She had the new teachers rate themselves within this Domain. Then, each new teacher took a Post-it Note and wrote a + or <> with comments/reasons why. This exit slip will be used to help assess the meeting. They stuck this note on a large chart on their way out of the meeting. The Facilitator will be typing these up and sharing with the new teachers soon.

Both of the observed new teacher meetings meet many of the criteria for

the following standards.

- Standard 1: Induction Program Leadership, Administration, and Support: Administrative support is evidenced through this district employment of a new teacher induction facilitator who planned and facilitated both of these meetings. This staff member is responsible for all aspects of the induction meetings, including the budget necessary to hire an outside consultant to work with the new teachers during a full day workshop.
- Standard 2 Program Goals and Design: All of the topics addressed at these two meetings meet the criteria for this standard. For example, the program addresses essential activities necessary for beginning teachers to learn such as classroom management and parent communication, both of which can be directly related to improved student learning.
- Standard 3 Resources: The district leadership has allocated resources to fund the salary of the new teacher facilitator ($25,000 per year), the materials and supplies for the new teachers and the mentors, and the workshop presenter fees.
- Standard 7 Development of Beginning Teacher Practice: The new teacher meetings that were observed were aligned with the criteria for this standard in that they provided the new teachers with opportunities to interact in beginning teacher-only peer group discussions, problem-solving activities, activities to address local needs and priorities.
- Standard 9 Program Evaluation: At the conclusion of the November 7 meeting the beginning teachers were asked to complete exit slips which were collected by the facilitator. These slips were used to evaluate the efficacy of this meeting for future planning.

According to Rebore and Walmsley (2010), when developing professional development activities for Generation Y teachers, districts should incorporate a variety of resource people such as senior teachers, professional consultants, and administrators. In addition, these authors state, "Group-oriented design has proven to be an effective method for delivering professional development

programs. With collaboration and group work an integral part of Generation Y

teachers, this type of program is ideal" (p. 103). The observed new teachers

meetings incorporated all of the above in an effort to meet the needs of the new

teachers.

Finally, there were no activities related to instructional technology

presented or discussed during these two observed meetings which would have

aligned with the RETC. Additionally, the activities were either face to face or

paper/pencil, and no technology was used by the new teachers as part of their

professional growth. The RETC stage 4 (Proficient), which is the highest

attainable level, calls for educator professional development to include a

"measurable correlation to district technology goals" and learning communities

that "provide continuous coaching, modeling of best practices, and school-based

mentoring." Although, in general, coaching and modeling were observed during

these meetings, neither of these included any form of technology, whether

functional or instructional.

Generation Y Online Survey

The Generation Y online new teacher survey was conducted during

November, 2013. One hundred seventy-five new teachers were contacted via an

email which included an embedded link to the online survey. These teachers

represented all of the new teachers hired in the school district over the last four

years. Of the 175 teachers contacted, 76 responded by starting the survey (43%

response rate). However, because this study was geared specifically to

Generation Y teachers (those born between 1976 and 1992), there were 19

teachers (25%) who were excluded from the study because they were born before

1976, thus making them part of Generation X. Therefore, 57 Generation Y

teachers (33% of the new teachers originally contacted) completed all or part of

the survey. Figure 5 illustrates the breakdown of new teachers by year of

teaching in the district, Figure 6 illustrates the breakdown of females to males

taking the survey, and Figure 7 illustrates the range of years in which the new

teachers were born. Those born before 1976 were automatically excluded from

answering the rest of the survey questions because they did not meet the

Generation Y criteria.
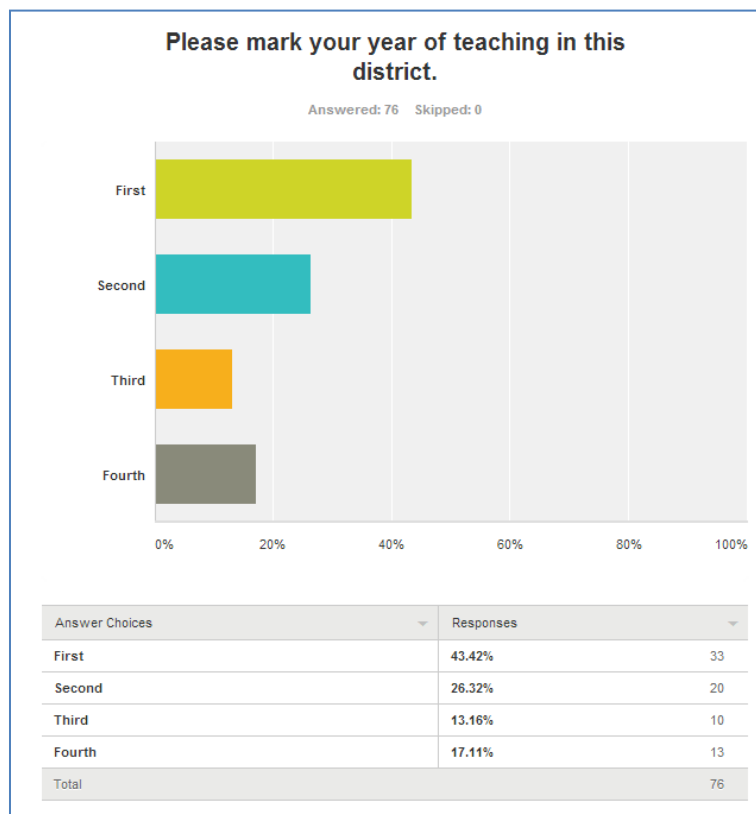
Figure 5. Q1 - New Teachers by Year in the District
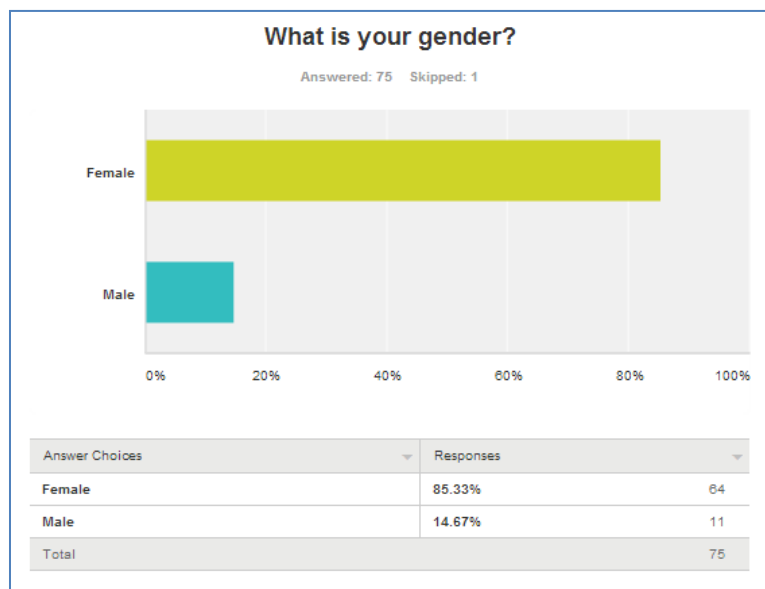
Figure 6. Q2 – Comparison of New Teachers by Gender
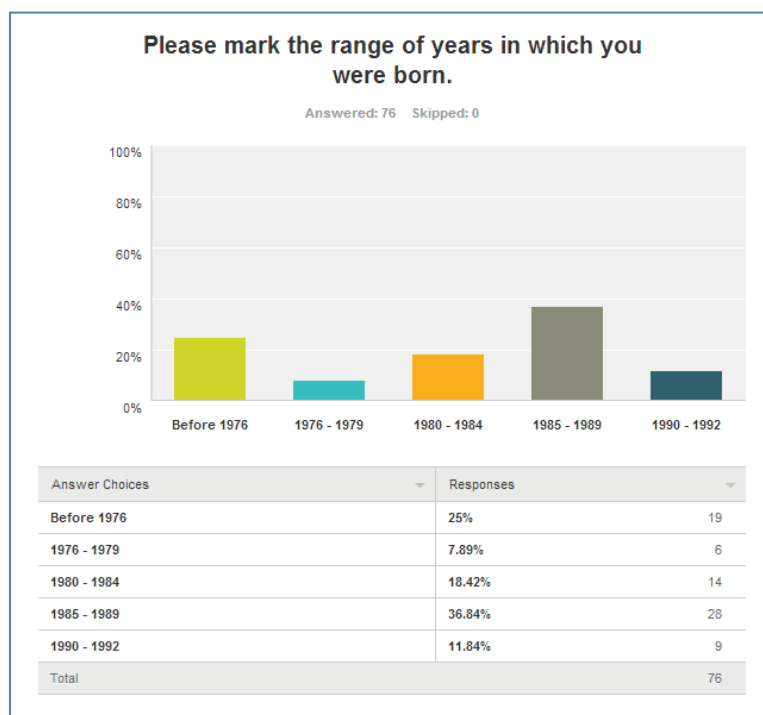
Figure 7. Q3 - Range of Birth Years for New Teachers

Figures 8, 9, 10, 11, and 12 represent new teacher survey questions 4, 5, 6, 7, and 8. These questions were answered specifically by Generation Y teachers in this district. They provide additional demographic data regarding these 57 teachers.

What is your highest college degree attained?

Answered: 54   Skipped: 22

Answer Choices	Responses	
Bachelors	51.85%	28
Bachelors plus 30 hours	7.41%	4
Masters	27.78%	15
Masters plus 30 hours	12.96%	7
Doctorate	0%	0
Total		54
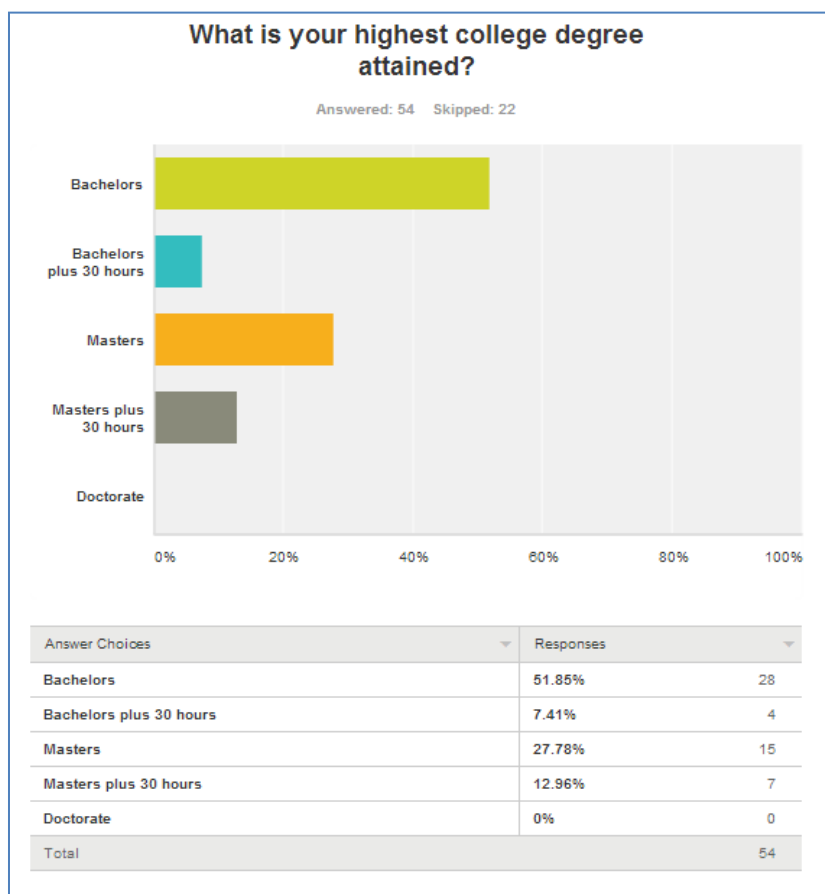
Figure 8. Q4 - New Teachers' College Degrees Attained

What level do you teach?

Answered: 52   Skipped: 24

Answer Choices	Responses	
Pre-k through Grade 2 Regular Education (Primary)	28.85%	15
Pre-k through Grade 2 Special Education (Primary)	13.46%	7
Pre-k through Grade 2 Bilingual Education (Primary)	17.31%	9
Grade 3 - Grade 5 Regular Education (Intermediate)	32.69%	17
Grade 3 - Grade 5 Special Education (Intermediate)	11.54%	6
Grade 3 - Grade 5 Bilingual Education (Intermediate)	3.85%	2
Grade 6 - Grade 8 Regular Education (Middle/Junior High School)	19.23%	10
Grade 6 - Grade 8 Special Education (Middle/Junior High School)	11.54%	6
Grade 6 - Grade 8 Bilingual Education (Middle/Junior High School)	1.92%	1
Total Respondents: 52		

Figure 9. Q5 - Range of Levels Taught by New Teachers

Is this your ...

Answered: 54   Skipped: 22

Answer Choices	Responses	
1st teaching position?	57.41%	31
2nd teaching position?	14.81%	8
3rd, 4th, or more than 4th teaching position?	27.78%	15
Total		54
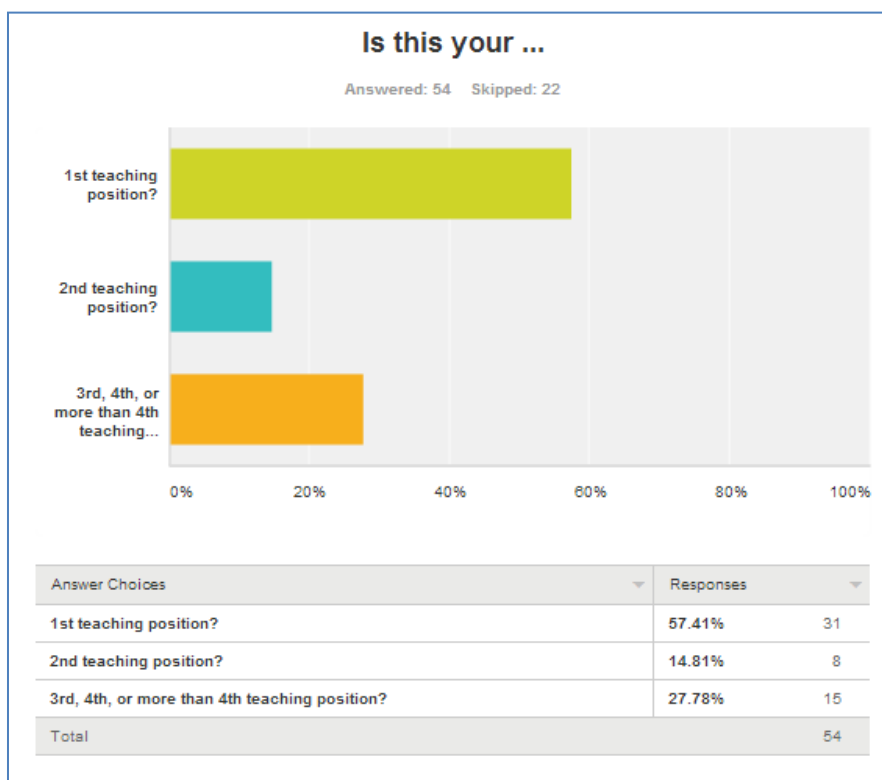
Figure 10. Q6 - New Teachers' Number of Years in this District
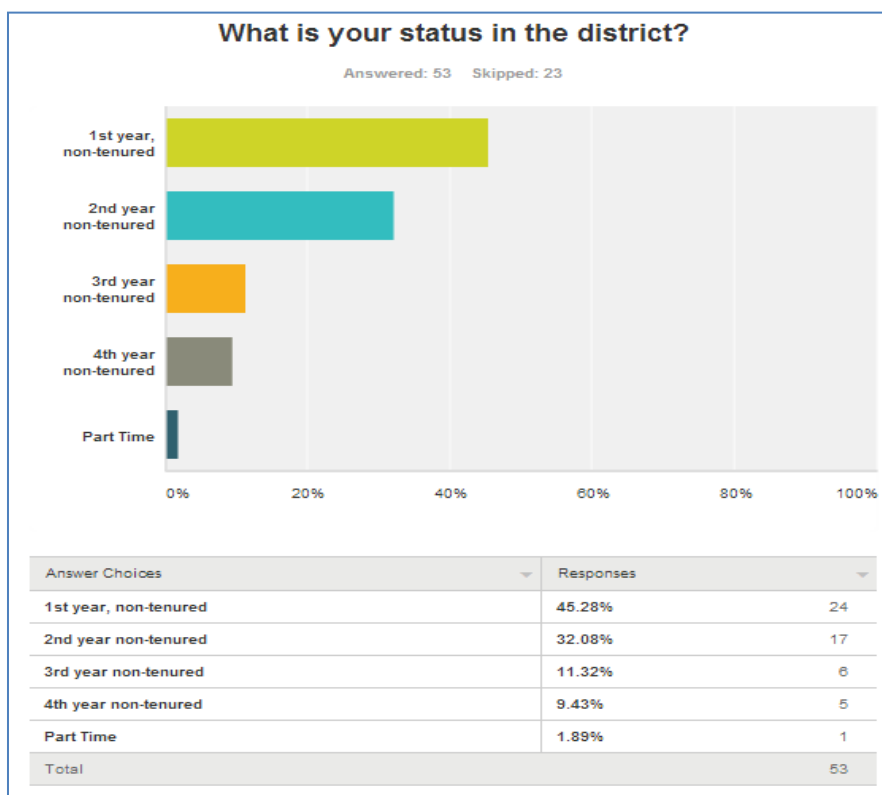
Figure 11. Q7 – New Teachers' Status in the District

Is teaching your first career or have you changed careers?

Answered: 53   Skipped: 23

Answer Choices	Responses	
Teaching is my first career.	77.36%	41
I worked in a different career before becoming a teacher.	22.64%	12
Total		53
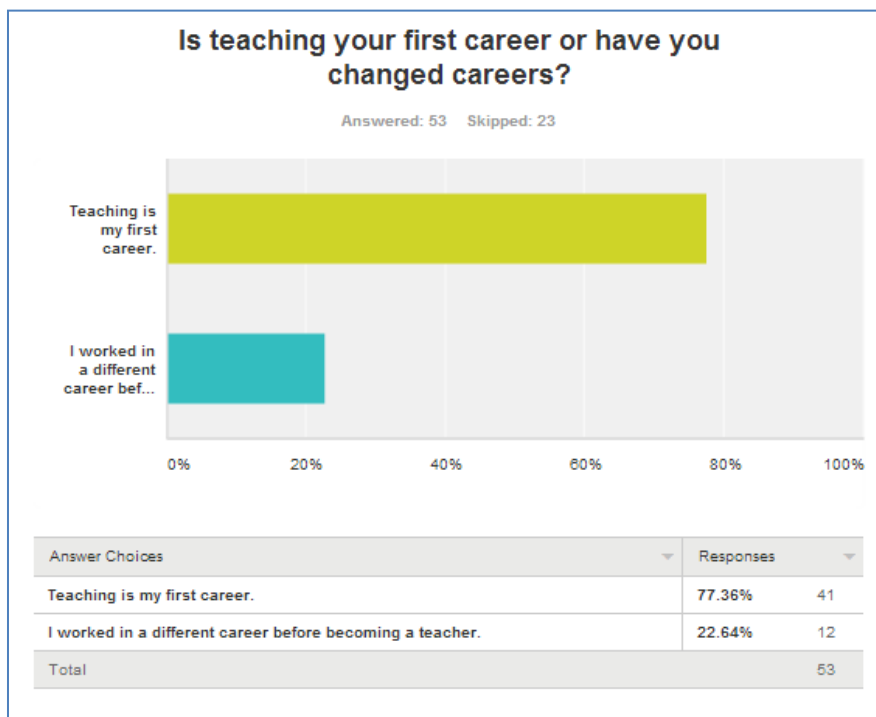
Figure 12. Q8 – New Teachers Who Have Made Teaching Their First Career

New teacher survey questions 9 and 10 asked the teachers to rate their technology skills in their personal and professional lives upon first being hired by the school district. These data are illustrated in Figures 13 and 14.

How would you rate your PERSONAL level of technology use before starting your teaching job in this district?

Answered: 54   Skipped: 22

Answer Choices	Responses	
Extremely Low	0%	0
Relatively Low	0%	0
Moderate	25.93%	14
Relatively High	57.41%	31
Extremely High	16.67%	9
Total		54
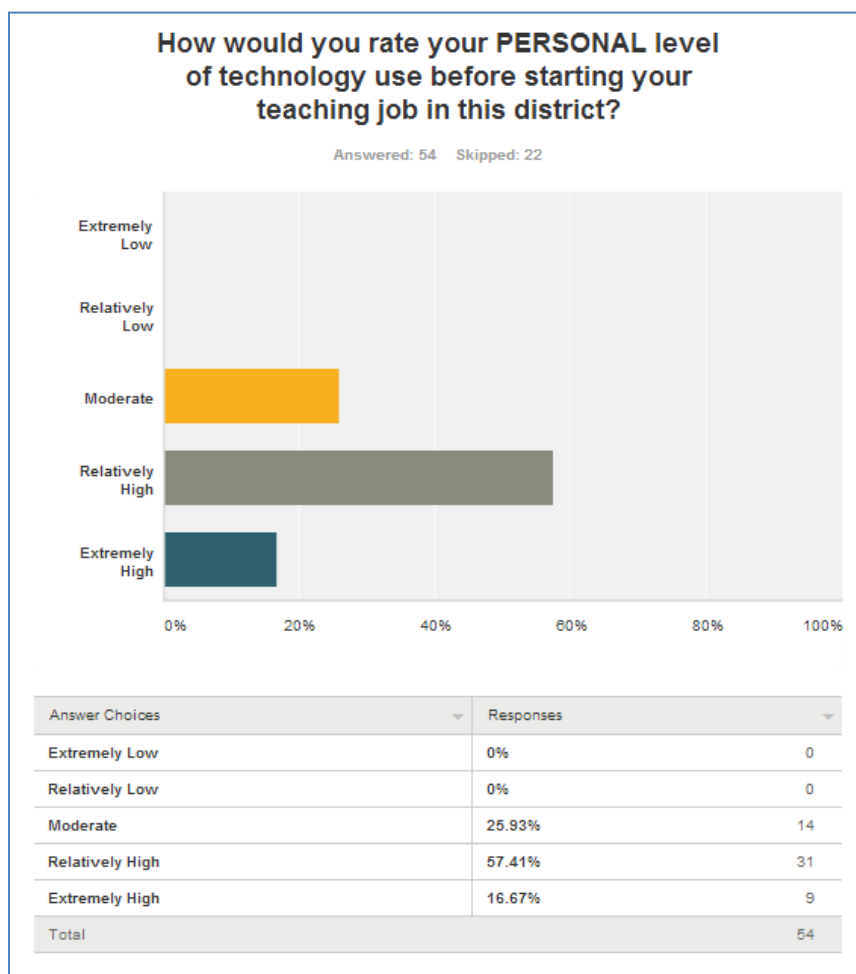
Figure 13. Q9 – New Teachers' Rating of Their Personal Use of Technology

How would you rate your PROFESSIONAL understanding (use) of technology in a classroom setting upon first being hired as a teacher?

Answered: 53   Skipped: 23

Extremely Low	
Relatively Low	
Moderate	
Relatively High	
Extremely High	

0%   20%   40%   60%   80%   100%

Answer Choices	Responses	
Extremely Low	1.89%	1
Relatively Low	5.66%	3
Moderate	47.17%	25
Relatively High	37.74%	20
Extremely High	7.55%	4
Total		53

Figure 14. Q10 – New Teachers' Rating of Their Professional Use of Technology
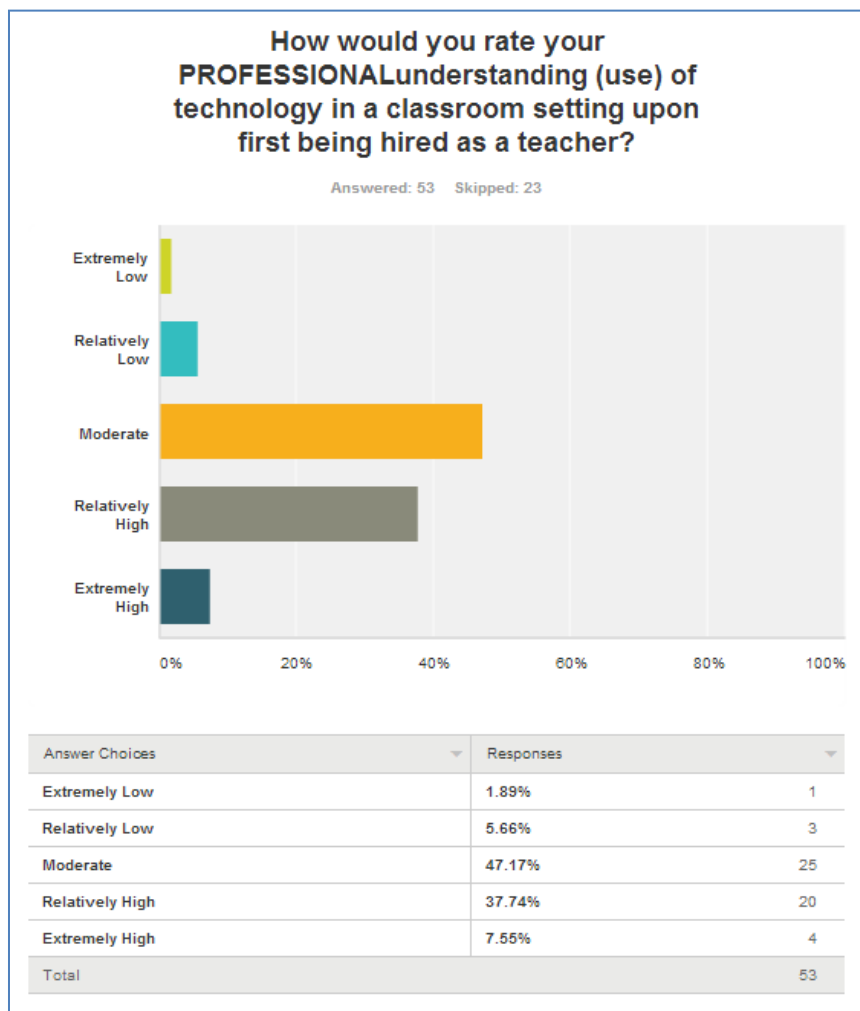
Survey question 11 asked the new teachers to describe the type of preparation they received in their college/university pre-service program related to technology for planning, instruction, and assessment. Thirty-six responses were recorded, and they are listed in Table 15.

Table 15

Responses to Q11 University Preparation in Technology

Respondent	Comment
1	Took multiple courses that incorporated assistive technology for student who have disabilities.
2	In my undergrad we used various programs tad adults to learn and understand how to use them for students. These programs were Microsoft office, power point, Live text, and grade level computer based websites for literacy in math (iPads and iPods were just coming out). We also had a little experience with smart boards. Currently in my masters, I completed a literacy and technology integration class where we learned best practices in using technology with literacy. Some of the tools we used were: animoto, Edmonds, blogger, twitter, kid blog, wikis, iMovie, podcasts, book trailers, and photo story.
3	None
4	Two technology classes, but we only used flip cameras and desktop computers.
5	Very little
6	Not much. Basic Microsoft Office
7	We had one course for technology use and were required to use different sources of technology through our coursework and field experience.
8	Some
9	None
10	One class
11	None
12	None
13	One class
14	A few classes
15	Unfortunately none
16	One technology for the classroom class
17	A good amount, all classes involved technology
18	One class
19	Little
20	Very limited training in iPads and Smartboards.
21	None
22	Smartboard training, use of Smartboards in field placements
23	Very little
24	Not as much as I would have expected - my university had a lab with different types of technology in it that we OCCASIONALLY visited to try out different

	forms of classroom technology, but we did not have any courses on it. We did however have a very beneficial workshop on using technology with students who have special needs.
25	Tons!! I went to Illinois state university!
26	Very little preparation with technology
27	Microsoft test, one tech class
28	Don't remember
29	Classes
30	Not much
31	Utilized a smart board (Promethean Board) during student teaching placement
32	Mostly informal
33	It was ok. I learned the most in student teaching
34	I received very little preparation in technology use in the classroom from my university. Most of what I have used has been self-taught or taught by a colleague of mine.
35	Technology instruction course
36	LBS-1

Upon reviewing Table 15, it appears as if 13 of the 36 new teachers (36%) referred to taking at least one technology class during their undergraduate teacher preparation program. Conversely, 23 of the respondents (64%) made some type of statement about their university technology preparation being poor or nonexistent. These data are not necessarily consistent with the National Center for Educational Statistics report from 2007 which found that 57% of the pre-service teachers surveyed were instructed about how to use technology to augment classroom instruction.

Survey questions 12 and 13 asked new teachers about the amount of

technology available to their students in their classrooms. See Figures 15 and 16

below.

How would you rate the level of student access to technology in your classroom?

Answered: 50   Skipped: 26

Answer Choices		Responses	
Extremely Low		0%	0
Relatively Low		14.00%	7
Moderate		44%	22
Relatively High		42%	21
Extremely High		0%	0
Total			50
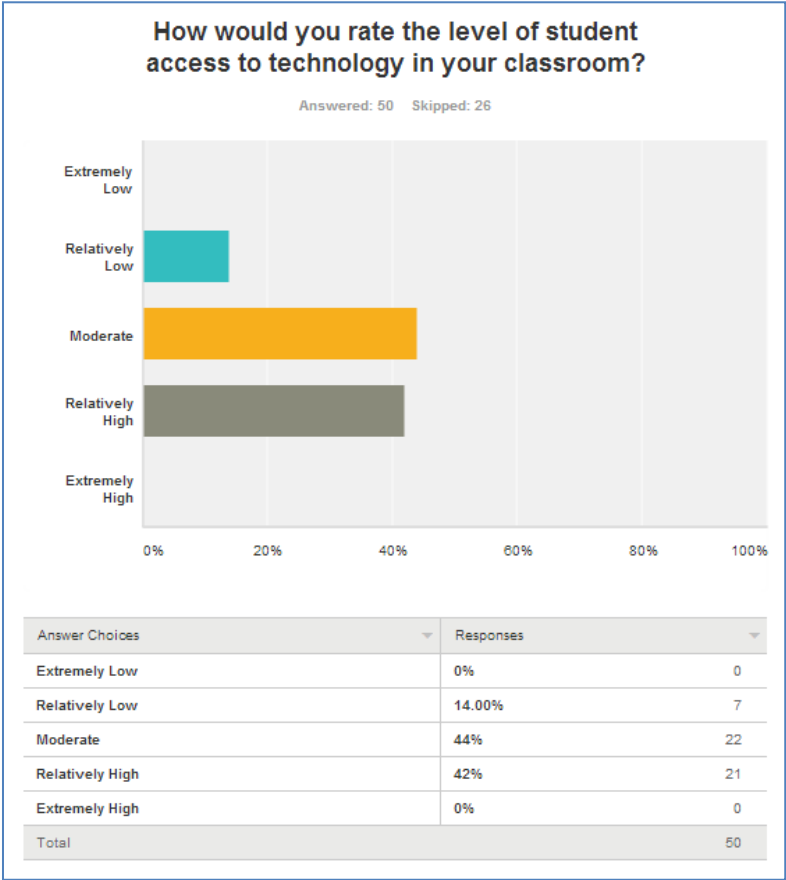
Figure 15. Q12 – Student Access to Technology in Classrooms

How would you rate the level of curriculum-based technology tools in your classroom?

Answered: 49   Skipped: 27

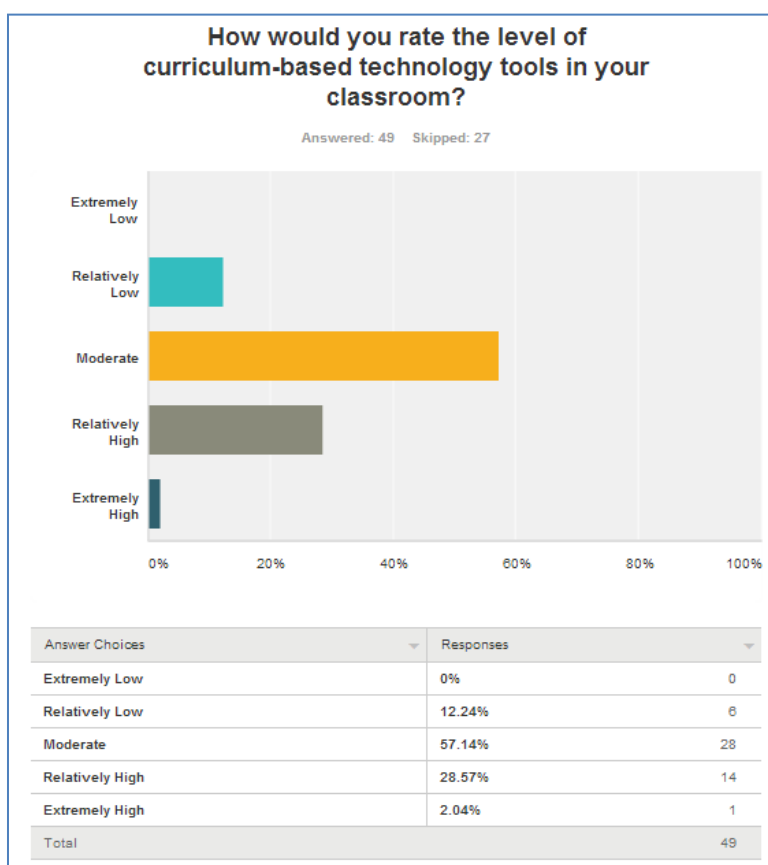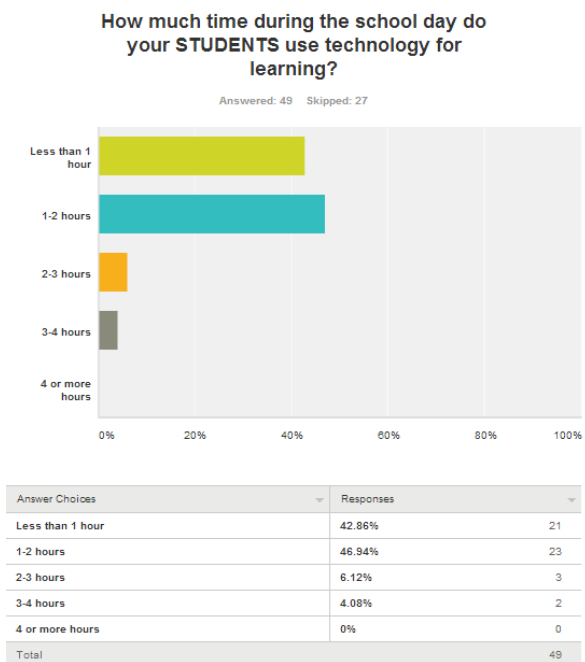| Answer Choices	Responses	
Extremely Low	0%	0
Relatively Low	12.24%	6
Moderate	57.14%	28
Relatively High	28.57%	14
Extremely High	2.04%	1
Total		49

Figure 16. Q13 – Level of Technology Tools in Classrooms
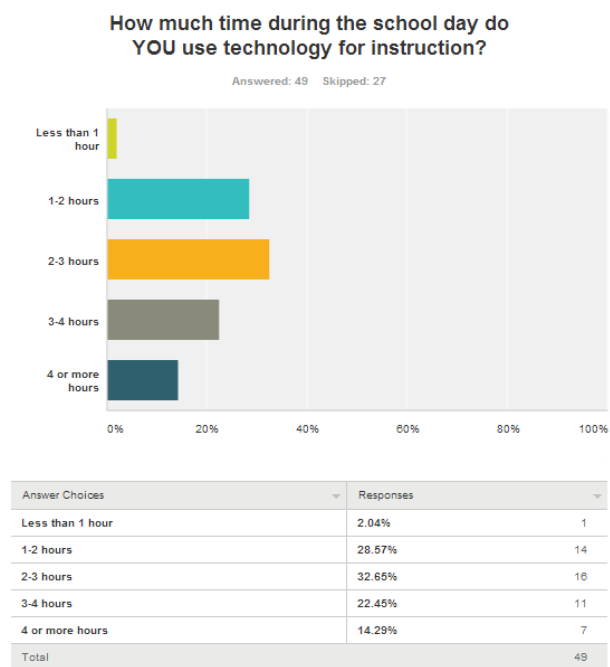
Figure 17 below compares the amount of technology the new teachers use for instruction during the school day to the amount of technology their students use for learning during the school day.

Survey question 16 asked new teachers to consider all of the areas in which they use instructional technology in their work as a teacher. Figure 18 below illustrates these data.

How much time during the school day do YOU use technology for instruction?

Answered: 49   Skipped: 27

Answer Choices	Responses	
Less than 1 hour	2.04%	1
1-2 hours	28.57%	14
2-3 hours	32.65%	16
3-4 hours	22.45%	11
4 or more hours	14.29%	7
Total		49

How much time during the school day do your STUDENTS use technology for learning?

Answered: 49   Skipped: 27

Answer Choices	Responses	
Less than 1 hour	42.86%	21
1-2 hours	46.94%	23
2-3 hours	6.12%	3
3-4 hours	4.08%	2
4 or more hours	0%	0
Total		49

Figure 17. Q14 & Q15 - Comparison of Technology Use by New Teachers and Their Students

Please check all of the areas in which you use instructional technology in your work as a teacher. (Check all that apply.)

Answered: 50   Skipped: 26

Answer Choices	Responses	
Direct instruction	88%	44
Communication with parents	94%	47
Communication with colleagues	94%	47
Communication with students	48%	24
Collaborative projects (e.g. Google Docs)	72%	36
Formative assessment (e.g. voting devices)	46%	23
Summative assessment	38%	19
Connecting/communicating outside the classroom	68%	34
Research	70%	35
Total Respondents: 50		

Figure 18. Q16 – Areas in Which New Teachers Use Technology

Figures 19, 20, and 21 below illustrate the students' different uses of technology in the new teachers' classrooms. These questions asked about students working collaboratively, evaluating and analyzing their assessment information, and communicating with the global community.
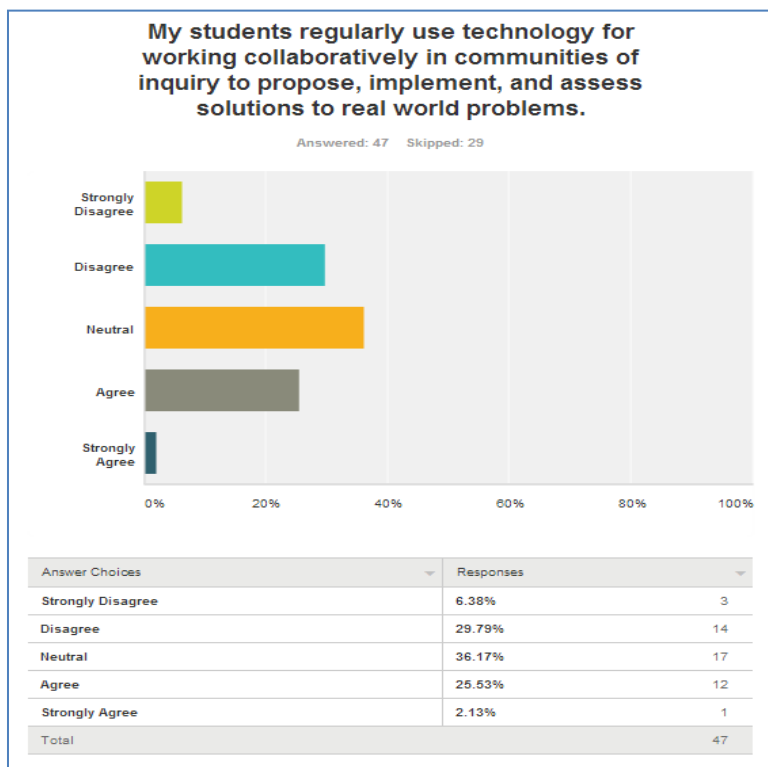
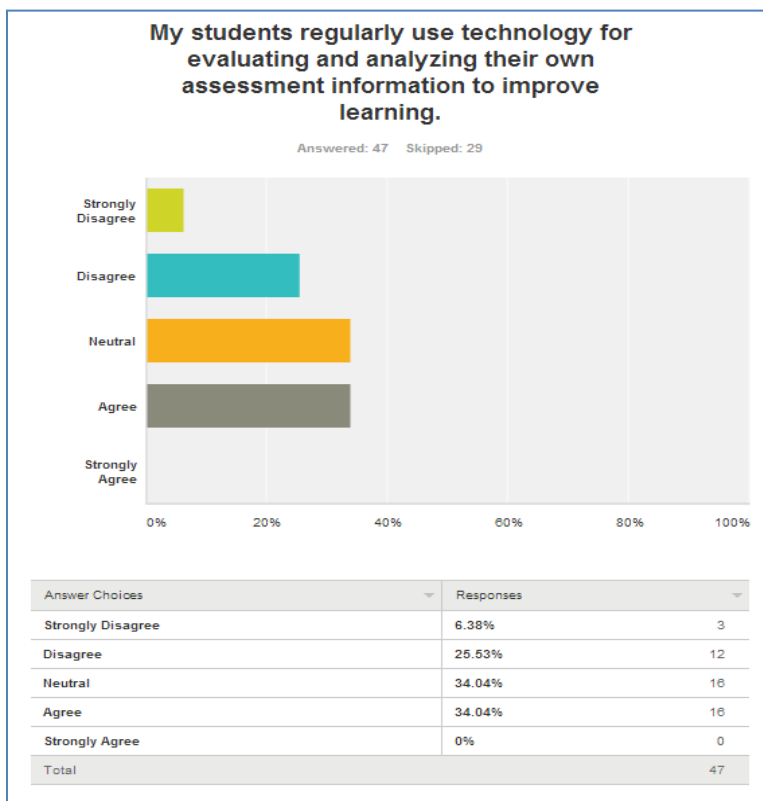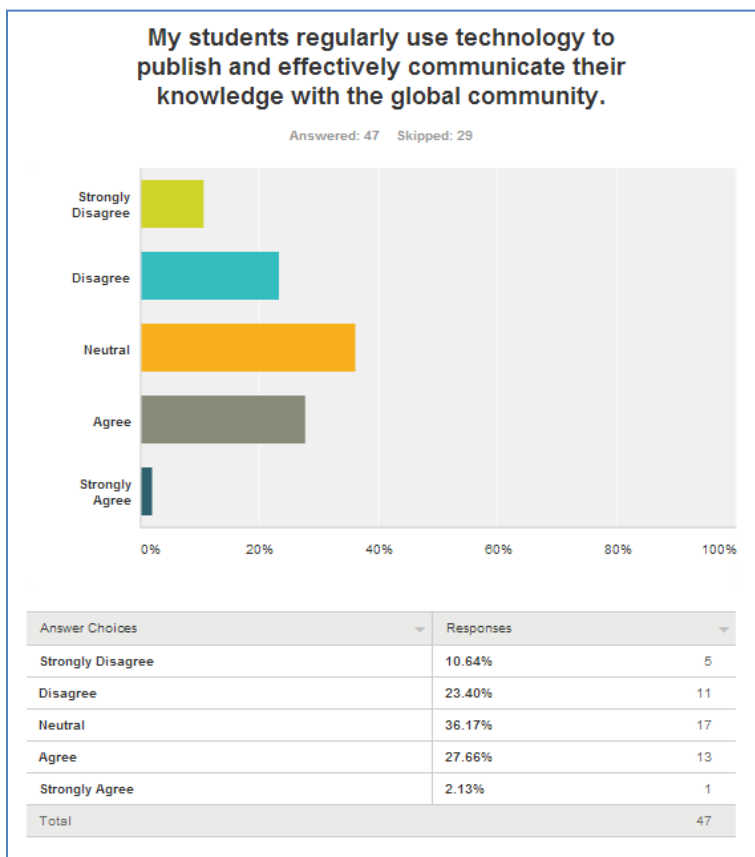*Figure 19*. Q17 – Students Using Technology to Work Collaboratively

Figure 20. Q18 – Students Using Technology for Evaluating and Analyzing

My students regularly use technology to publish and effectively communicate their knowledge with the global community.

Answered: 47   Skipped: 29

Answer Choices	Responses	
Strongly Disagree	10.64%	5
Disagree	23.40%	11
Neutral	36.17%	17
Agree	27.66%	13
Strongly Agree	2.13%	1
Total		47

Figure 21. Q19 – Students Using Technology for Communicating with the Global Community

New teacher survey questions 20, 21, 22, and 23 relate to the new teachers' use of technology and 21st century instruction in their classrooms and in their teaching (see Figures 22-25 for the respective data).
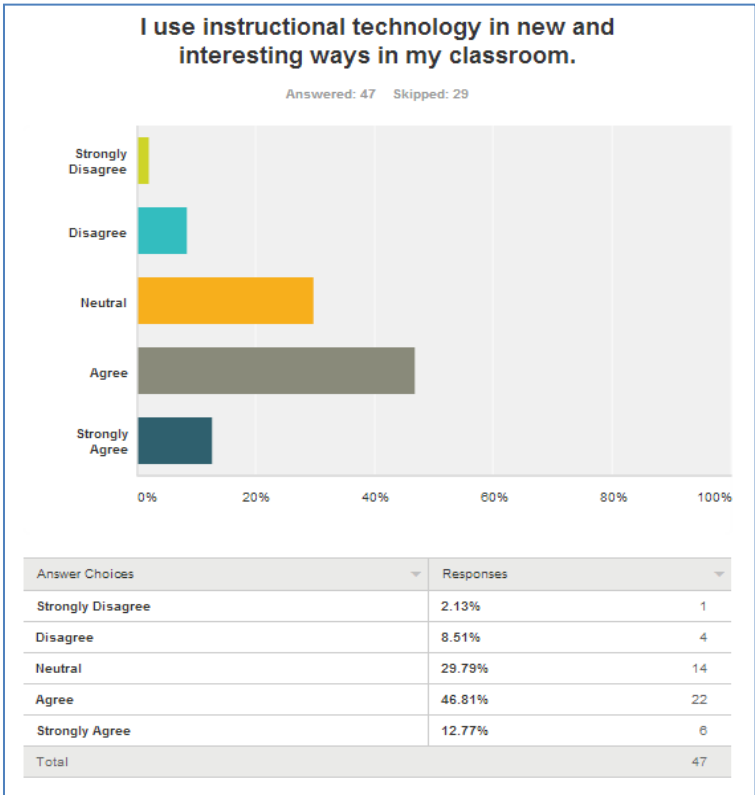
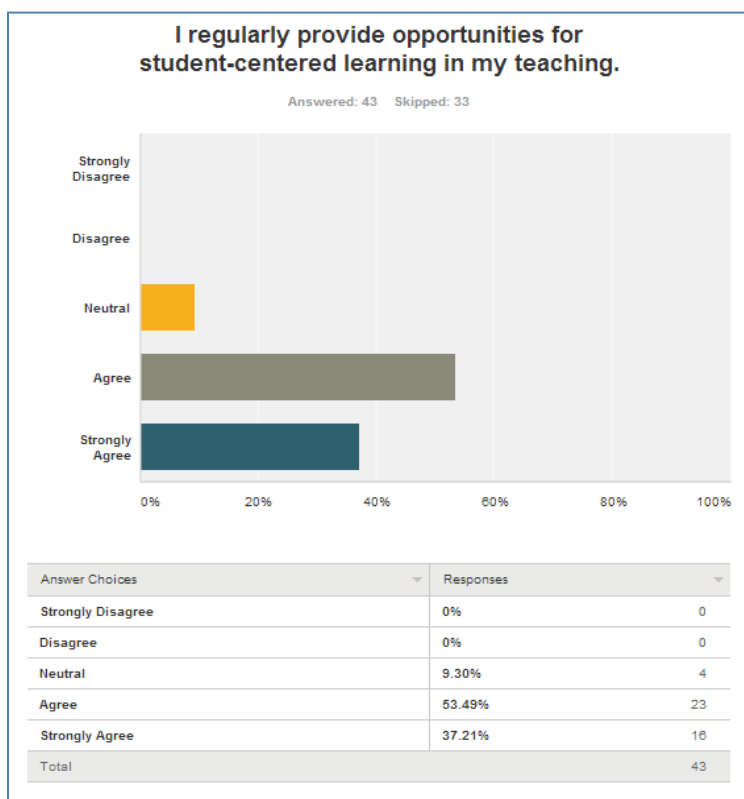*Figure 22.* Q20 - Ways in Which New Teachers Use Tech in Classrooms

**I regularly provide opportunities for
student-centered learning in my teaching.**

Answered: 43   Skipped: 33

Answer Choices	Responses	
Strongly Disagree	0%	0
Disagree	0%	0
Neutral	9.30%	4
Agree	53.49%	23
Strongly Agree	37.21%	16
Total		43

Figure 23. Q21 – Student-Centered Learning Opportunities

I am a facilitator in collaboration with external entities to develop 21st century skills (e.g. national or international, business, and/or educational communities).

Answered: 42   Skipped: 34

Answer Choices	Responses	
Strongly Disagree	9.52%	4
Disagree	9.52%	4
Neutral	26.19%	11
Agree	42.86%	18
Strongly Agree	11.90%	5
Total		42
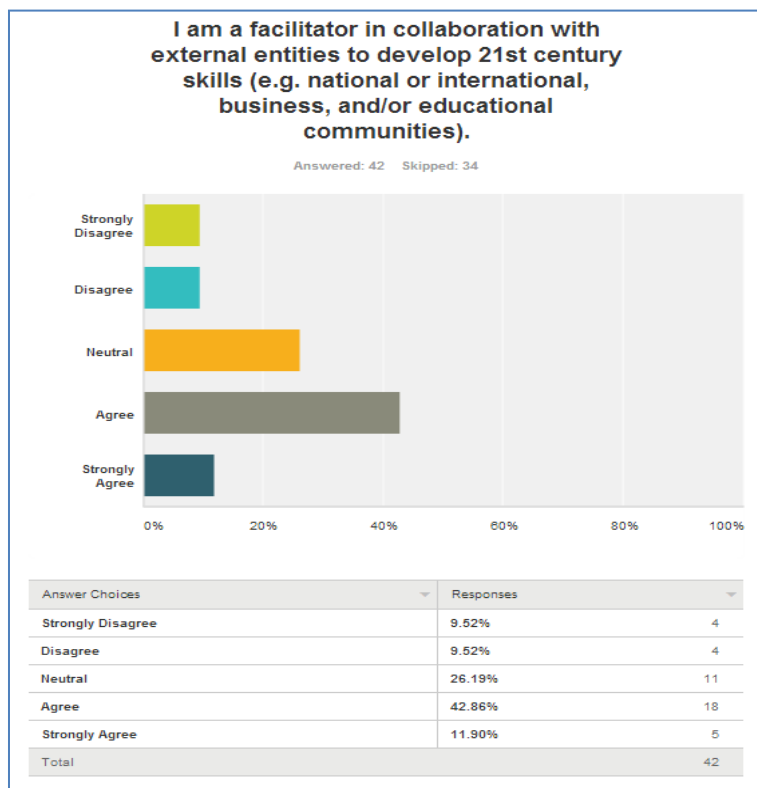
Figure 24. Q22 – Facilitator to Collaborate with External Entities
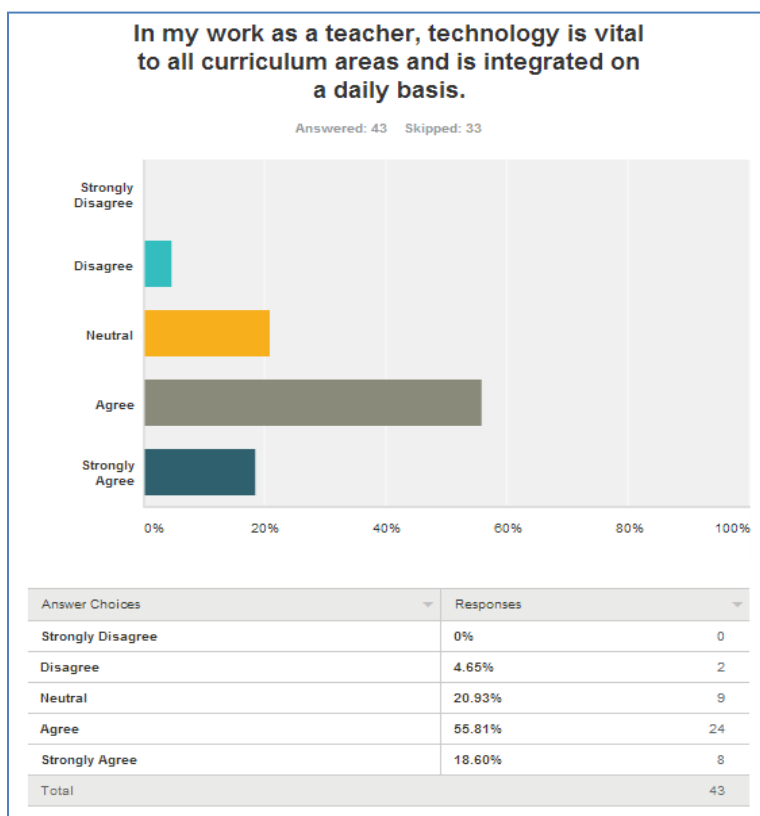
Figure 25. Q23 – The Integration of Tech on a Daily Basis

Survey questions 24 and 25 focused on the opportunities with technology

afforded the students by the school district. Both questions deal with students'

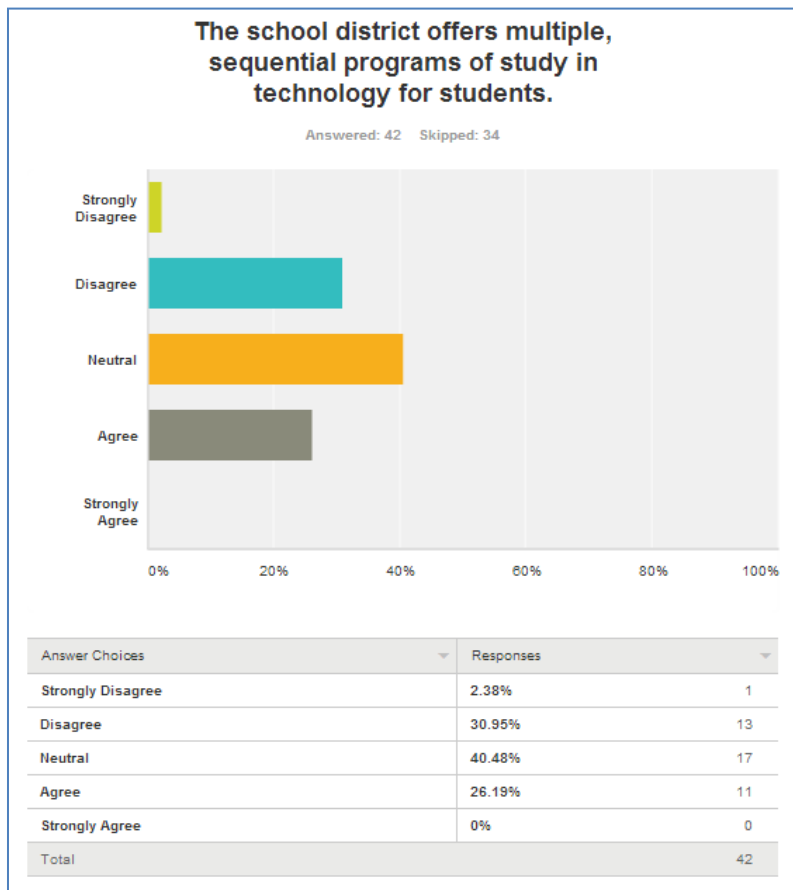access to a variety of opportunities to use technology.

The school district offers multiple, sequential programs of study in technology for students.

Answered: 42   Skipped: 34

Answer Choices	Responses	
Strongly Disagree	2.38%	1
Disagree	30.95%	13
Neutral	40.48%	17
Agree	26.19%	11
Strongly Agree	0%	0
Total		42

Figure 26. Q24 – Sequential Programs of Study in Tech

My students participate in a mentoring program with business and/or community members.

Answered: 44   Skipped: 32

Answer Choices	Responses	
Strongly Disagree	31.82%	14
Disagree	43.18%	19
Neutral	18.18%	8
Agree	6.82%	3
Strongly Agree	0%	0
Total		44
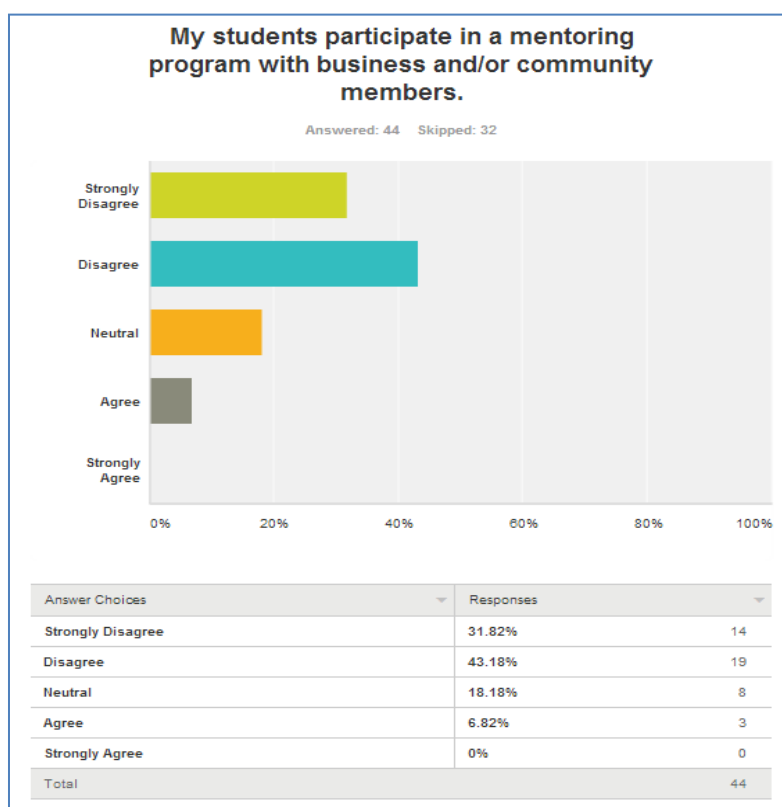
Figure 27. Q25 – Student Participation with Outside Organizations

Question 26 specifically asked the new teachers to rate the professional development they received during new teacher induction week, and question 27 asked the new teachers to explain their reasoning behind this answer. These data are presented below in Figure 28. Table 16 below lists the exact responses provided by the 35 Generation Y teachers who answered question 27 "Why did you give this rating?"
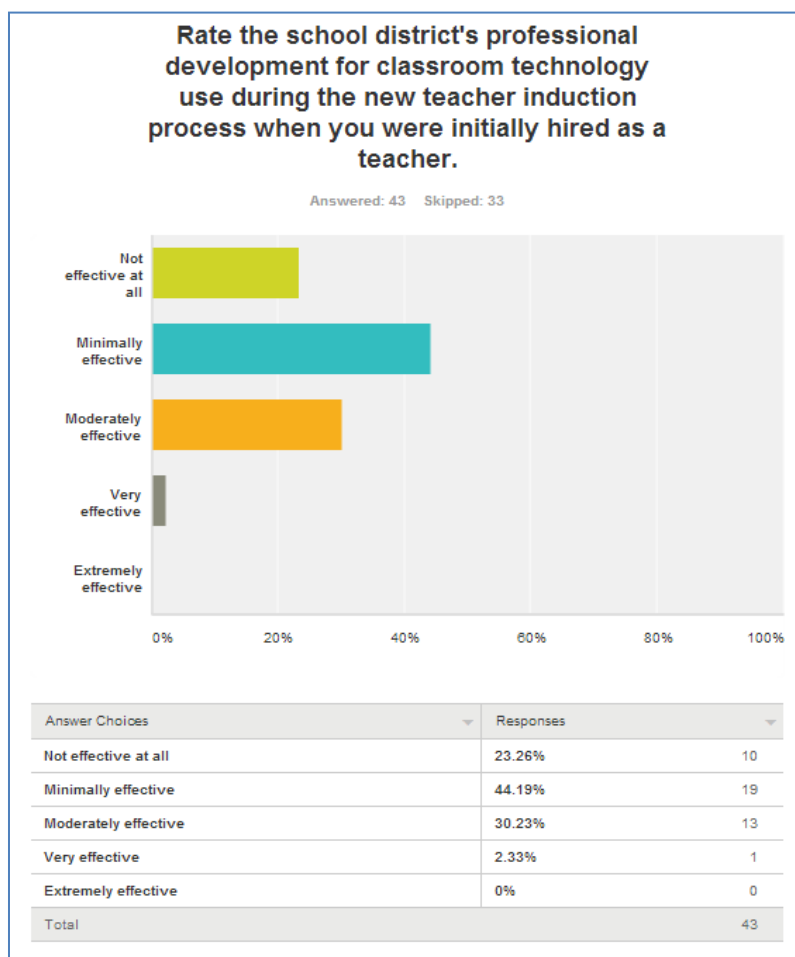
Figure 28. Q26 – Ratings of the New Teacher Induction program

Survey question 26 asked the district's Generation Y teachers a very

important question; one that is directly related to research question 1 of this

study. Upon examining these data collected from this question, one can see that

the majority of the new teachers did not feel as if the topic of instructional

technology was even moderately effective. According to these data, 67.45% of

the 43 teachers who answered this question felt as if they received ineffective or

minimally effective PD related to classroom technology. Only one teacher felt as if the PD was very or extremely effective.

Table 16

Responses to Question 27 – Reasons for Rating NTI Technology PD

Respondent	Comment
1	A new teacher is worried and focused on so many aspects of getting a classroom ready and ready to teach children. Technology is important, but a session or workshop needs to come later in the year. It's too overwhelming.
2	I was hired late
3	Only how to utilize a few pieces of technology (Elmo, edmodo), but a lot of learning on my own.
4	I don't remember much training in this particular area.
5	I have attended meetings and training for different types of technology, but I feel as if there could be more resources available.
6	I didn't have any training.
7	No training on classroom technology
8	Very broad overview
9	I had to figure everything out on my own.
10	I did not receive much training on the technology I was given, and instead had to teach myself/learn from other teachers
11	All we were given was a brief overview of what was available. It would have been more helpful to further explain what options are available to us, especially those of us who teach K-2.
12	Only one required training
13	A lot of stuff- don't always know how to use it best
14	During our induction process, they really didn't show us HOW technology could be used in the classroom. They just told us what apps were available. How is this beneficial when we do not know how to implement into the classroom?
15	I don't remember covering technology.
16	I feel like technology was used. However, since our district is going more IPAD based, using IPADS would have been a benefit.
17	The meeting offered insight but that is it. I learned more through student teaching and PDS seminars.
18	I was hired after the new teacher induction process and was never given any technology training once I was hired.
19	Only had one very quick session

20	I don't remember any specific technology training during the teacher induction process.
21	We barely received any
22	I do not recall any training for technology.
23	I don't know that there was much opportunity for this that I remember during my new hire meetings. However, I did have the opportunity to go to a few workshops during my first year that revolved around classroom technology that were very helpful, so these opportunities were there.
24	I had one workshop on it but honestly don't recall the information
25	I had very little professional development with regards to technology.
26	I really don't remember much technology training
27	Not applicable
28	Only some strategies were given, but not very useful
29	No PD for technology provided
30	I was not there that day.
31	The only time we talked about technology was in short 30 minute session. Could have been A LOT more.
32	As a new teacher I attended one 1-hour session about technology and it only glossed over what was available for use and did not explain how to use the technology provided or how to help my students use the technology provided.
33	I did not participate in new teacher induction process because I was hired after that process took place.
34	We did not get any training on the types of technology available. A quick run down the list is not effective for someone who used a different tool in another district, or never used any tools at all.
35	Ineffective if at all prevalent

Key area six, Content of Technology Training, which is part of the

Educator Competencies and Professional Development section of the Nebraska

RETC, affirms the importance of teachers learning to use technology in their

classrooms. To attain stages 3 or 4 on this rubric, a school district must provide

training on the integration of technology into instructional strategies in order to

improve teaching and learning. Based on these data collected from questions 26

and 27, the Generation Y new teachers in the school district under review in this

case study perceive that the district is not providing adequate professional

development for its new teachers in the area of instructional technology.

Upon review of these data in Table 16, one can see that none of the new

teachers responded positively when providing their reasons. Instead, all 35

respondents made such statements as "I didn't have any training," "I had to

figure everything out on my own," "Only had one very quick session," and "The

only time we talked about technology was in short 30 minute session. Could

have been A LOT more." Furthermore, those teachers hired after the five-day

new teacher induction meetings in early August did not receive any district

developed professional development in the use of technology for planning,

instruction, or assessment.

These data from Figure 28 and Table 16, in conjunction with the research

on pre-service teacher education in the area of instructional technology (see

Table 15) begs the question as to why the district in this research study provides

one hour of training during the five-day new teacher induction week and no

technology training for new teachers over the course of the first school year.

As a follow-up to questions 26 and 27, the Generation Y new teachers

were asked to check the areas in which they received the technology professional

development. Twenty-seven of the 57 (47%) Generation Y teachers chose to

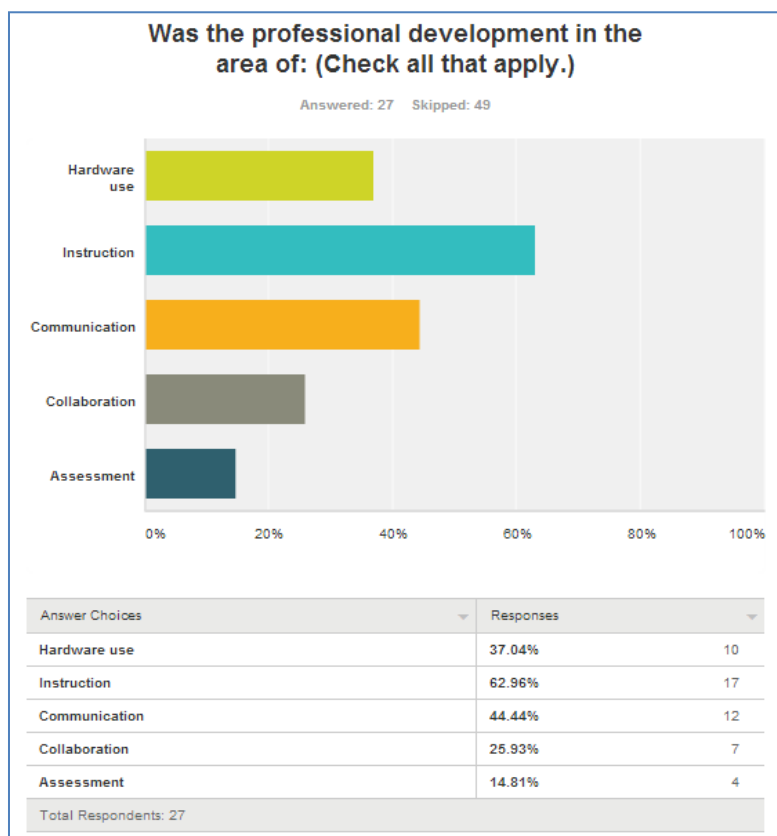answer this question. These data are presented in Figure 29.

Figure 29. Q28 – Areas of Technology PD Received During NTI Meetings

New teacher survey questions 29 through 32 expanded on the

professional development received by the Generation Y teachers by asking about

the process across the entire first school year. For the first year teachers, one of

the answer choices was "N/A – I have not yet completed my first year." Figure

30 illustrates these data for question 29 which specifically asked how much PD

the new teachers received over the course of the first year in the school district.

Based on these data, 45 new teachers answered question 29, 39 as that they had completed at least one full year of teaching in the school district. Among these 39 new teachers, 68% felt as if the amount of ongoing professional development over the course of their first year was no better than moderate. Conversely, 15.6% felt that the amount was relatively high, while only one new teacher thought the amount was extremely high.

According to Standard 7 of the *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs* (2008) beginning teachers should have regularly scheduled learning opportunities that continue throughout the school year. One area for further consideration in this research study is the dichotomy between the district-provided artifacts which document a full year's worth of new teacher induction meetings and the new teachers' answers to question 29. If the district is providing this much professional development for the new teachers, then why do 68% of them feel as if this is a moderate or less than satisfactory amount?
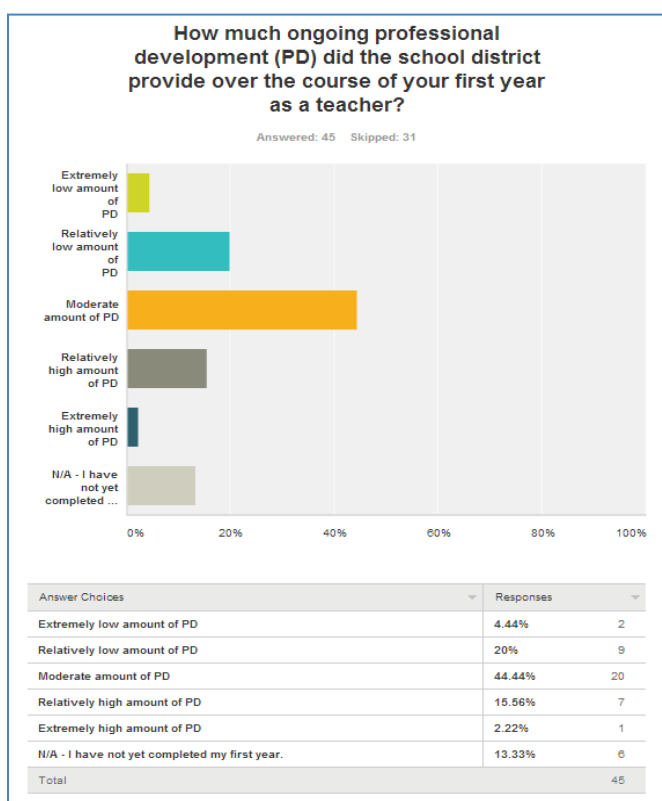
How much ongoing professional
development (PD) did the school district
provide over the course of your first year
as a teacher?

Answered: 45   Skipped: 31

Answer Choices	Responses	
Extremely low amount of PD	4.44%	2
Relatively low amount of PD	20%	9
Moderate amount of PD	44.44%	20
Relatively high amount of PD	15.56%	7
Extremely high amount of PD	2.22%	1
N/A - I have not yet completed my first year.	13.33%	6
Total		45

Figure 30. Q29 – How much PD New Teachers Received During First Year

Figure 31 displays these data for the more specific question related to the

quality of the PD in the area of *technology* over the course of the first year. In this

instance, 72.5% of the second through fourth year new teachers felt that the

quality of the technology professional development was of moderate quality or

less, while only five teachers (12.5%) felt that the quality of the technology PD

was of relatively or extremely high quality.

The Nebraska RETC clearly articulates that the most effective professional

development for instructional technology should be available any time, at any

level, and through a variety of delivery systems (e.g. distance learning, on-line

coursework, state and national conferences, outside consultants, etc.). When

comparing the responses to questions 29 and 30, the new teachers have made it

clear that they want more professional development, and one area they want

specifically is in instructional technology.

One of the attributes of Generation Y, as described by Treuren and

Anderson (2010), is a demand for professional growth and development. These

data, presented in Figure 30 and Figure 31, provide evidence that the new

teachers in this school district are not highly pleased with the amount or quality

of the professional development they received during their first year in the

district.
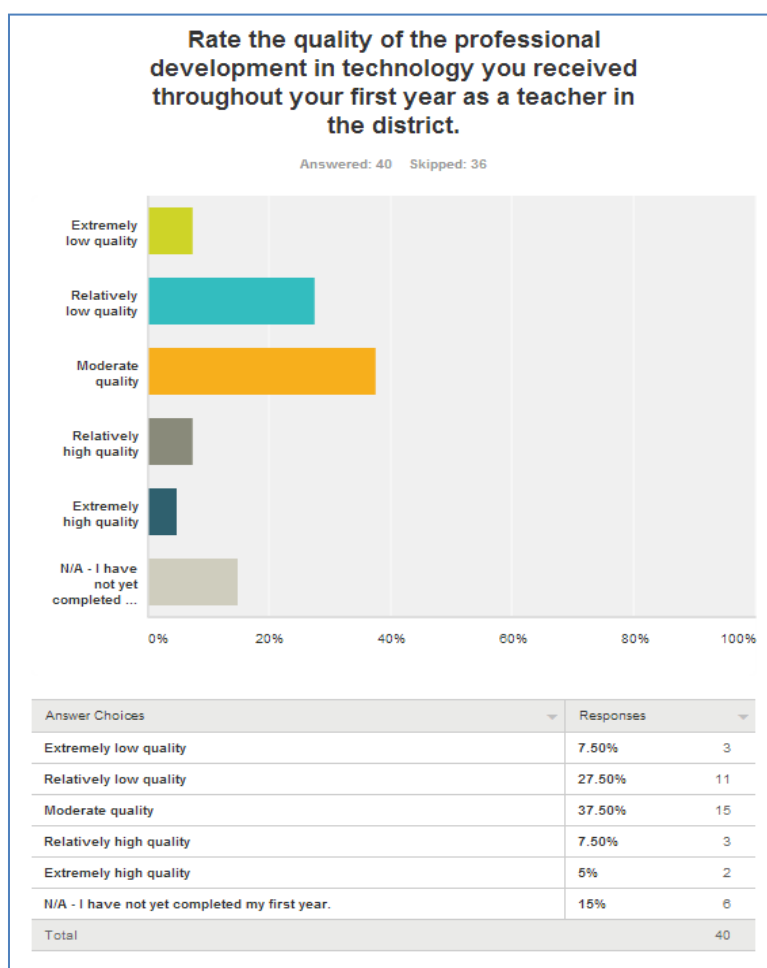
Figure 31. Q30 – Quality of Tech PD New Teachers Received During First Year

Survey question 31 delineates the point that the Generation Y teachers

desire more PD in the area of technology. They were asked to write why they

gave the specific rating in question 30. Twenty-one respondents chose to answer

this question, and of this group, 16 (76%) articulated that they received very little

or no training in the use of technology during their first year teaching in the

district. The full list of their responses is listed in Table 17 below.

Table 17

Quality of Tech PD During First Year in the District

Respondent	Comment
1	The first year teacher meetings, staff trained us on how to use FileMaker.
2	Again, as I stated before it is overwhelming for new teachers. They just need the very, very basics or easy steps in using technology in the class and got instruction. The following year is a better time to fine tune this for new teachers.
3	No classes for new teachers on how to use certain technology websites for communication.
4	I don't think any of my trainings were related to technology.
5	I believe I could have figured out a lot of the training on my own.
6	I haven't received any training.
7	Not much offered that I remember
8	There were opportunities but not necessarily great ones. We had to get trained in recordings for the blind, and it was a wasted day - the equipment provided by the grant was not user friendly. Would have made more sense to learn something that teachers would actually want to use.
9	Not enough PD in this area
10	Many training opportunities are offered.
11	I learned a lot from these trainings and at one point or another I have already used the skills and strategies that I have learned from them.
12	Beside the one seminar from XX, this was the only meeting we had. I would have liked more explicit ideas.
13	I was not given any training by the district; I elected to attend some training provided by my school.
14	Presenter was interesting and knowledgeable
15	I don't recall any specific technology training from the district my first year as a teacher in this district.
16	There was little to no training.
17	I received very little.
18	I didn't get any.
19	There was not any.
20	I have only attended one session and it was very brief
21	I've only had iPad training through the school/district.
22	Sometimes inapplicable

Survey question 32 asked the Generation Y teachers to detail who provided the professional development during the first year of teaching in the school district. The respondents were allowed to check as many people as applicable. Figure 32 details these data.

Numerous researchers have written about the high level of technological comfort Generation Y teachers bring to the classroom. Berhrstock and Clifford (2009) write that Generation Y teachers are comfortable with technology, and they are dissatisfied with technology inferior workplaces, and Rebore and Walmsley (2010) state that Generation Y teachers communicate more through technology than in person. Finally, Treuren and Anderson (2010) write that those in Generation Y have a desire for appropriate workplace leadership. Yet, these data collected in this research indicate that the school district is not fully responsive to the specific needs of Generation Y teachers as related to instructional technology.
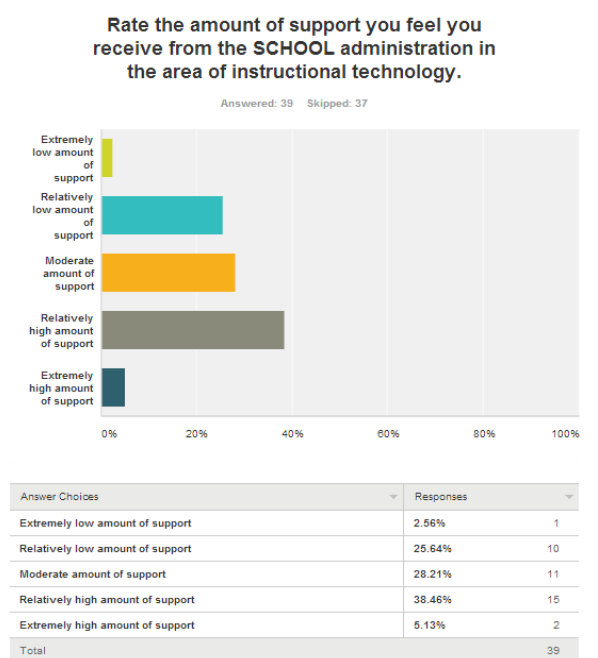
Who provided professional development during your first year of teaching in the district? (Check all that apply.)

Answered: 34   Skipped: 42

Answer Choices	Responses	
Superintendent	5.88%	2
Assistant supt. for curriculum and instruction	8.82%	3
Assistant supt. (director) for human resources	5.88%	2
Principal(s)	26.47%	9
Director of technology at the district level	47.06%	16
Technology coordinator(s) at the school level	38.24%	13
New Teacher Induction Coordinator	64.71%	22
Teacher leader/mentor	50%	17
Outsourced consultant	20.59%	7
Secretary/Teaching assistant	2.94%	1
Total Respondents: 34		

Figure 32. Q32 – Those Who Provided PD During First Year

This research highlights the need for school and district leadership to support the new teachers in the area of instructional technology. These data from survey questions 33 and 34 display the amount of support the Generation Y teachers received in the area of instructional technology from both the school administration and the district administration. Figure 33 below illustrates these data. Upon studying these data, one can observe that there is a level of contradiction with the comments made by the respondents in Table 17. If the new teachers felt supported by the school and district-level administrators, then why would 76% of those responding to question 31 articulate that they received little or no training in the use of technology during their first year teaching in the school district?

Rate the amount of support you feel you receive from the SCHOOL administration in the area of instructional technology.

Answered: 39   Skipped: 37

Answer Choices	Responses	
Extremely low amount of support	2.56%	1
Relatively low amount of support	25.64%	10
Moderate amount of support	28.21%	11
Relatively high amount of support	38.46%	15
Extremely high amount of support	5.13%	2
Total		39

Rate the amount of support you feel you receive from the DISTRICT administration in the area of instructional technology.

Answered: 39   Skipped: 37

Answer Choices	Responses	
Extremely low amount of support	10.26%	4
Relatively low amount of support	28.21%	11
Moderate amount of support	28.21%	11
Relatively high amount of support	28.21%	11
Extremely high amount of support	5.13%	2
Total		39

Figure 33. Q33 & Q34 – Comparison of Instructional Tech Support from School and District Administrators

One could make the assumption that after a year of teaching and receiving professional development, Generation Y teachers would have made considerable growth in the use of instructional technology for planning, instruction, and assessment, especially with the research finding that Generation Y teachers come into the profession with a very high comfort level with technology. When studying these data from Figure 14, one can observe that 92% of the new teachers believe that their skills with technology use in the classroom were moderately to extremely high when first hired by the school district.

These data can be compared to those data from survey question 35 which asked the Generation Y teachers to rate their professional understanding of technology after one year of teaching. Figure 34 below details these data which show that a combined 82% of the Generation Y teachers fell into the moderately to extremely high ranges. This begs the question why did this percentage drop after one year of teaching?

Question 36 was a follow-up question which asked the new teachers if they were capable of mentoring a new teacher in the use of instructional technology. The basis for this question was the assumption that Generation Y teachers with strong technology skills would be ready to mentor others after one year of teaching. Figure 35 below illustrates that 64% of the respondents are

either neutral or not confident in their abilities to mentor others in the use of

instructional technology after one year of teaching. On the flipside, 31% felt

relatively capable of mentoring, and only 5% felt extremely capable of mentoring

a new teacher.

Answer Choices		Responses	
Extremely Low		2.44%	1
Relatively Low		12.20%	5
Moderate		29.27%	12
Relatively High		31.71%	13
Extremely High		7.32%	3
N/A (I have not completed my first year of teaching)		17.07%	7
Total			41
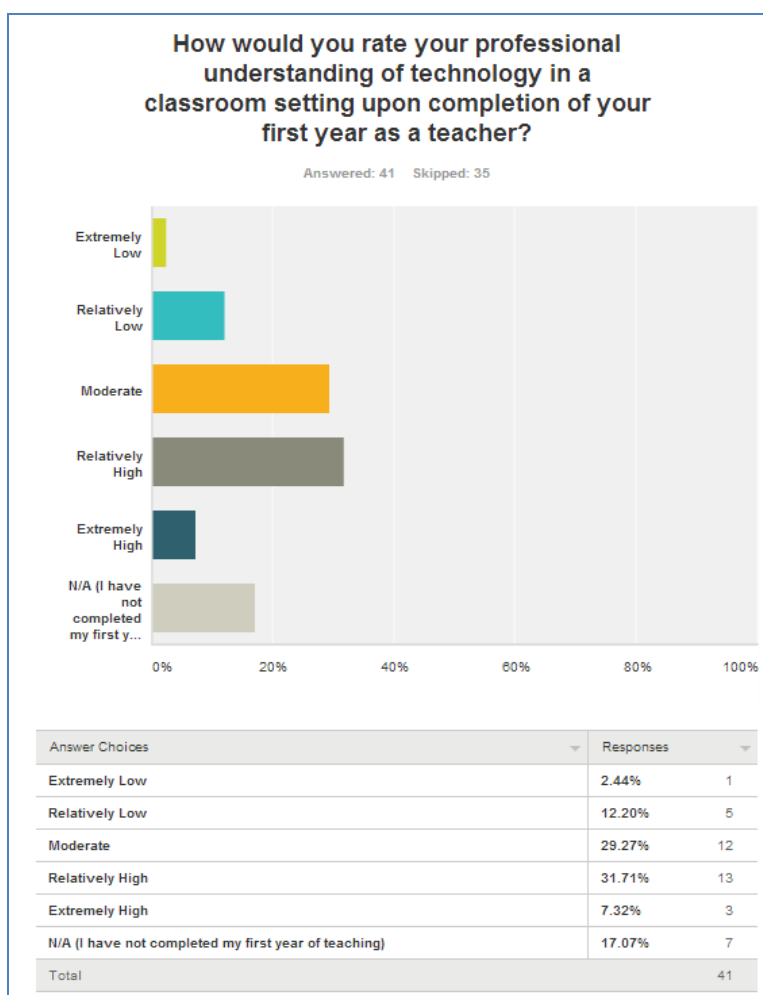
Figure 34. Q35 – New Teachers' Understanding of Technology Use at the End of Year One
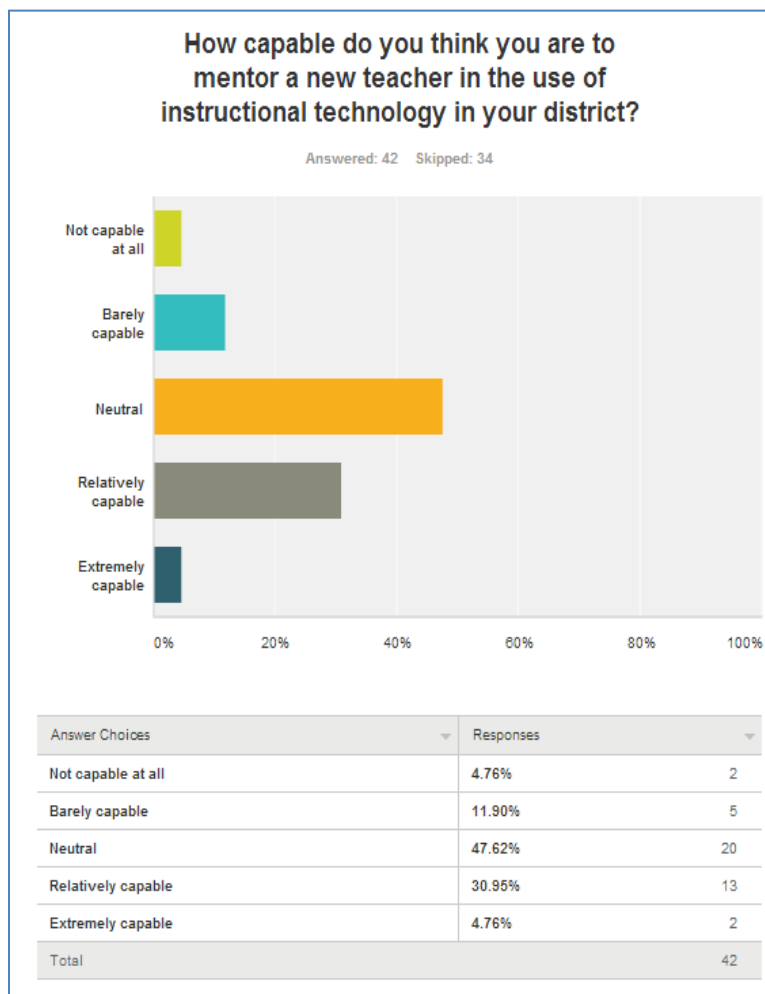
Figure 35. Q36 – New Teachers' Ability to Mentor Others After One Year of Teaching

Question 37 from the Generation Y survey asked respondents to identify

which professional development activities assist them to learn best. According

to the RETC, the highest degree of professional development for teachers in the

area of technology should include "Learning communities created among

instructional staff to provide continuous coaching, modeling of best practices,

and school-based mentoring" (p. 6 of 10).   Furthermore, additional professional

development should be available any time, at any level, through a variety of

delivery systems such as distance learning, on-line course work, state and

national conferences, and outside consultants.

In this area, the RETC is aligned with the research on Generation Y

teachers. Rebore and Walmsley (2010) state that "the most effective professional

development structure for new teachers is the concept of professional learning

communities" (p. 97).   These authors continue by explaining that "PLCs have an

inherent structure with four major focuses that fit well with the needs of

Generation Y teachers including: (1) learning rather than teaching, (2)

collaboration, (3) viewing all members of the community as learners, (4) self-

accountability" (p. 97). Generation Y teachers prefer choice and differentiation in

order to address their PD needs. Additionally, they prefer to be part of an online

learning community which incorporates such environments as embedded

videos, audio files, Google documents, and discussion boards (Taranto, 2011).

Furthermore, Cogshall, Behrstock-Sherratt, and Drill (2011) report that

Generation Y teachers require professional development that provides

differentiation and individualized support. Figure 36 below illustrates how this

research is reflected in these data collected through question 37. As one can see,

blended PD was the most popular among the respondents, and this is consistent

with the Cogshall, et al. report.

How do you best learn as a professional (professional development options)?

Answered: 42   Skipped: 34

Answer Choices	Responses	
Professional development meetings	26.19%	11
Online	4.76%	2
Self-directed	9.52%	4
One-on-one tutoring/assistance	14.29%	6
Blended	45.24%	19
Total		42
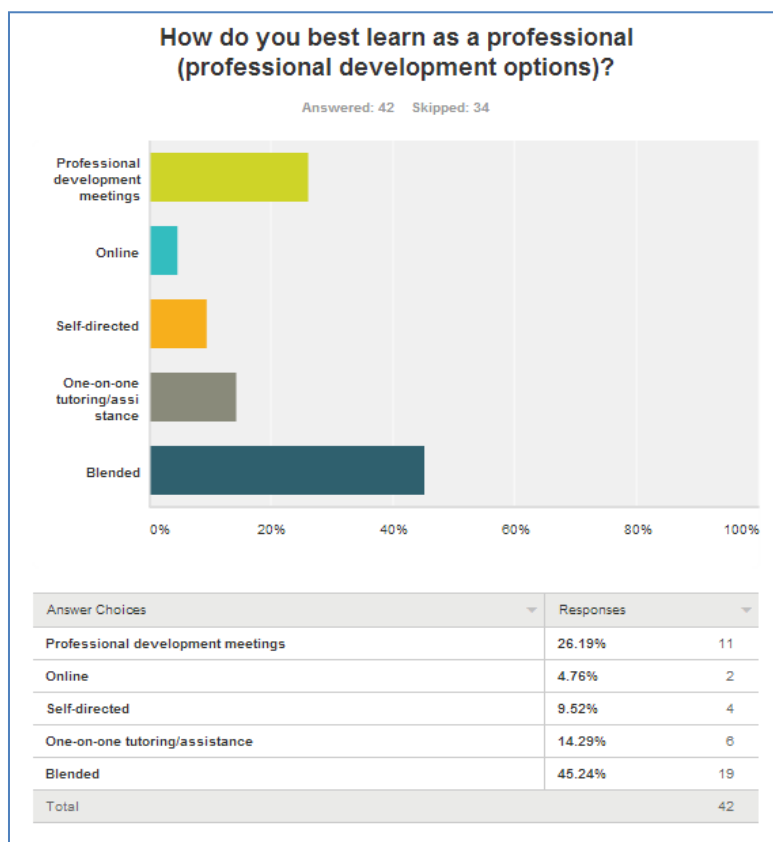
Figure 36. Q37 – How New Teachers Learn Best

Finally, question 38 asked the new teachers to detail what they need in the

area of PD in order to effectively incorporate technology into their instruction.

Table 18 details their responses to this question.

Table 18

Q38 – What New Teachers Need in the Area of Instructional Technology

Respondent	Comment
1	Adding iPad apps. It is so difficult to add the ones that would best fit the students in the class.
2	I think I (and others) need time to dabble and try some of the things that we know or have learned. Then, we need another survey or forum to share concerns or needs of improvement so that the district may design sessions based on needs.
3	Examples
4	Time
5	Training with how to use iPads.
6	I would love to have access to smart boards and more training in iPad usage in the classroom.
7	Training
8	More theory into practice - practical examples - time to collaborate with others.
9	More iPad training. Always more iPad training.
10	More smart board training
11	Access to more iPad apps, discussion/collaboration with other kindergarten teachers to see how they implement technology into their classrooms. It is very different to implement technology with 5 year olds than with older kids!
12	How to best incorporate
13	Technology to use
14	An online resource that directs us to lessons that use technology in all content areas would be a great tool.
15	I enjoy seeing examples of how technology is used in class as well as time to plan the implementation of these ideas.
16	Training on how to incorporate iPads into curriculum and not just as extra practice.
17	Training, especially with apps on iPads
18	I feel completely supported by the district technology team. However, I don't remember them at all the first year or two of teaching in this district. I don't lack any PD in effectively incorporating technology. The assistance I want, I am already receiving.
19	Content specific ways to meaningfully incorporate technology into my curriculum
20	Assistance in regards to purchasing worthwhile SPANISH programming
21	More information on educational apps for iPads, as well as different ways to incorporate iPads into my curriculum

22	N/A
23	Ways to utilize it in the classroom
24	Examples of how to incorporate technology into lessons and the classroom
25	Hands on mentoring
26	Time to learn new tools and especially programs
27	I need concrete ideas of how to use certain technology tools in the classroom. i.e Rather than telling me what the app does, tell me how I can incorporate this app into instruction in a meaningful way.
28	More professional development time.
29	Convenient access to technology

Table 19 below was created to summarize the written responses received
from question 38. All 29 responses are accounted for, except for respondent
number 18 who does not have any needs, and respondent number 22 who
answered with N/A.

These data in Table 19 show that the new teachers are interested in more
training and professional development in the use of apps for the iPad (this
district has invested heavily in iPads over the last two years), the purchasing of
more apps, and more ways to incorporate technology in the classrooms (which
falls under the classification of training/professional development). When
evaluating these needs against the Nebraska RETC, one can see that, according to
these new teachers, the district may be falling short in the key area of
instructional technology staffing and budgeting which are part of the Technology
Administration and Support section (p. 1 of 10).

Table 19

Q38 – Summary of PD Needs with Technology

Responses	Number of Responses
More training/PD for iPads, Smartboards,	8
More Apps	5
How to incorporate technology in classroom	5
More examples	3
More time to dabble with and try technology	3
More convenient access to technology	1
More mentoring	1
More online resources	1

This conclusion can be made based on numerous comments made by principals regarding the need for more human resources (staffing) in the area of technology training and support. Additional staffing is a budgetary issue school districts must grapple with yearly, and this district is no exception. In addition, there is a cost to purchasing more apps for the 3,000 iPads that have been purchased for the students and staff.

In addition, one can see that, according to these new teachers, the district

may be falling short in the RETC key areas of professional development and

models of professional development which are part of the Educator

Competencies and Professional Development section (p. 6 of 10). These data

show that the new teachers are asking for more professional development in the

use of technology for planning, instruction, and assessment.

In comparing these instructional technology needs to both the *Illinois*

Standards of Quality and Effectiveness for Beginning Teacher Induction Programs

(2008) and the district's new teacher induction documents, one can start to make

the assumption that not enough training/professional development is being

provided for new teachers during their entire first year of teaching in the school

district. Standard 7 of the Illinois Standards document details the expectations

for the development of beginning teacher practices. The use of technology for

planning, instruction, and assessment certainly is an important part of the

teaching practices of all teachers, thus the question is whether one hour of

training in this area during the entire year-long new teacher induction process is

sufficient.

Generation Y teachers have been raised in an environment where

technology is omnipresent. However, the ability to use technology in one's

personal life does not necessarily translate into the effective use of technology in teaching. Generation Y teachers require PD in which they can communicate and collaborate with their peers, where they are offered choices based on their specific needs, and in which they can be self-directed in their professional learning (Rebore & Walmsley, 2010). In addition, these teachers prefer a blended approach to PD which may include the use of technology for their professional learning. With these needs in mind, is the school district being studied for this research project providing the necessary training to meet the needs of its Generation Y new teachers?

Summary

In this chapter, the researcher presented the findings from interviews of six district-level school administrators and seven elementary and junior high school principals. The interviews consisted of 19 questions. In addition, the researcher presented the findings from an online survey of 57 new teachers who all belong to Generation Y. The survey consisted of 38 questions. Third, the researcher presented the observations of three meetings that were part of the new teacher induction program developed by the school district participating in this case study research project. Finally, the researcher detailed artifacts that were collected relating to the school district's new teacher induction program.

The administrator and principal interviews were conducted over the telephone, recorded on an iPad, and transcribed, word for word, by a professional online transcription service. Twenty-seven people were initially contacted via email and asked to participate in the interview process. A total of 13 were eventually interviewed. For the online survey, a link was emailed to a total of 175 teachers in the school district. All of these teachers are new to the district within the last four years. Data from this survey was collected over the course of the month of November, 2013. For all of the completed surveys, these data were collected via Survey Monkey™ and displayed in graphs and charts. The new teacher induction meeting observations took place at three different meetings in October and November, 2013. Artifacts were collected through email and through face-to-face meetings with the district's new teacher induction facilitator.

The Nebraska Rubric of Essential Conditions (RETC) was used to develop the questions related to instructional technology that were asked as part of the interview process and for the online new teacher survey. The questions related to new teacher induction for the interviews and survey were developed from the Illinois State Teacher Certification Board's *nine Standards of Quality and Effectiveness for Beginning Teacher Induction Programs* (2008). The questions related

to Generation Y teachers were culled from the research on Generation Y teachers

conducted by this researcher.

In the next chapter, the researcher will use these data collected to discuss

common themes and answer the following research questions:

1. What constitutes a high quality new teacher induction program for

    Generation Y teachers in order for them to appropriately utilize

    technology in their planning, instruction, and assessment?

2. What recommendations should be made for all school districts in order

    for them to properly train their new Generation Y teachers in the best

    uses of instructional technology for planning, instruction, and

    assessment?

3. What are the implications for school leaders?

CHAPTER V

ANALYSIS OF THE DATA

Introduction

This study deeply examined one school district that is considered

"exemplary" in the use of technology for planning, instruction, and assessment

based on the fact that it has been recognized nationally as a leader in the use of

technology. In 1998 the district received the National School Board Association's

Institute for Transfer of Technology to Education (NSBA/ITTE) Video Salute for

creating improved teaching and learning environments using technology, and

again in 1998 it was the first recipient of the Reed Hundt Award from the

National School Board Association for excellence in the effective use of

technology. In addition, this district was the 2003 recipient of the Malcolm

Baldridge National Quality Award. Finally, the district was awarded the 2004

Technology Leadership Network Trailblazer Award.

More recently, this district has received the following accolades from the

educational community.

- A seventh grade reading/language arts teacher was the 2013 recipient of the Illinois Computing Educators (ICE) "Educator of the Year Award" for his work embedding technology into his instruction.
- Since 2011, 13 teachers have won the "Those Who Excel" award from the Illinois State Board of Education, including a team of two teachers who won for their work with assistive technology.
- Nine of the district's 20 schools have been recognized by the United States Department of Education as Blue Ribbon Schools of Excellence.
- Since 2011, 20 teachers have earned their National Board Certification.
- Motorola Solutions Foundation has awarded nearly $110,000 to this district in grant money to assist students who wish to further pursue their interests in science, technology, engineering, and mathematics.
- The district's educational foundation awarded the schools with funds to purchase iPads in May 2012.

Furthermore, in 2012 this district launched a STEM (science, technology, engineering, and mathematics) program to develop 21st century skills among all of its middle school students.

The purpose of this dissertation was: (1) to deeply study one school district that is exemplary in the use of instructional technology to enhance teachers' planning, instruction, and assessment; (2) to determine how this school district trains its Generation Y teachers in the use of technology; and, (3) to make recommendations to educational leaders as to the best plans for teacher induction in the area of educational technology.

The ultimate goal of a successful new teacher induction program is to retain the very best new teachers in the field of education. According to Breaux

and Wong (2003), "New teachers must be trained if we want them to succeed; it is much better to train new teachers and risk losing them than not to train them and risk keeping them" (p. v). In addition, "An induction process is the best way to send a message to your teachers, a message that you value them and want them to succeed and stay" (p. v). This dissertation has addressed the issues of instructional technology competencies as they are related to new teacher induction.

Through the use of qualitative research methods, this researcher interviewed six district-level administrators and seven principals. This researcher also sent an electronic survey, via email, to 175 new teachers which garnered a response rate of 43%. In addition, artifacts related to the district's new teacher induction and mentoring programs were collected, and finally, observations of new teacher and mentor meetings took place. This chapter presents the analysis of data, interpretations, and conclusions in response to the following research questions:

1. What constitutes a high quality new teacher induction program for Generation Y teachers in order for them to appropriately utilize technology in their planning, instruction, and assessment?

2. What recommendations should be made for all school districts in order

   for them to properly train their new Generation Y teachers in the best

   uses of instructional technology for planning, instruction, and

   assessment?

3. What are the implications for school leaders?

This chapter will answer these questions by presenting an analysis of data,

interpretations of these data, links between these data and related literature,

conclusions, and calls for further research on the topic of new teacher induction

in the area of instructional technology. Figure 37 below illustrates how the

Nebraska Rubric of Essential Technology Conditions – RETC (2006) and the

Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction

Programs (2008) are at the center of these data that have been collected and

analyzed in a triangulated method. All three areas of data collection were

focused directly on both the rubric and the list of standards.
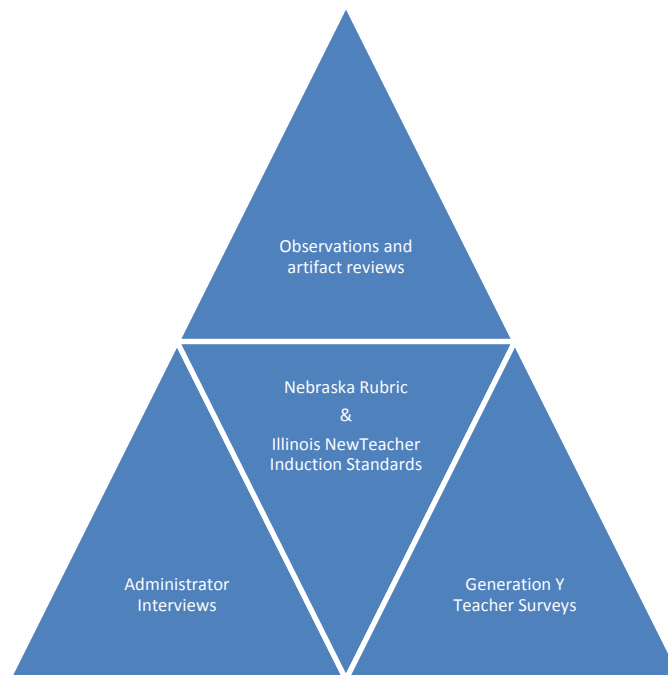
Figure 37. Data Triangulation

Conclusions

Research Question 1

What constitutes a high quality new teacher induction program for

Generation Y teachers in order for them to appropriately utilize technology in

their planning, instruction, and assessment?

The answer to this question will be provided in two phases. First, one

must determine whether the school district involved in this case study is

generally providing a high quality new teacher induction program (NTI). The

nine standards from the *Illinois Standards of Quality and Effectiveness for Beginning*

Teacher Induction Programs (2008) will be used to evaluate all aspects of this

district's new teacher induction program. Then, based on this district's NTI

program, one can draw conclusions as to a high quality induction program for

other school districts. Second, one must determine if the district under review in

this case study is providing appropriate professional development throughout

the new teacher induction process to assist Generation Y teachers in effectively

utilizing technology in their planning, instruction, and assessment. Then, based

on these data, one can draw conclusions about the appropriate inclusion of

technology in a new teacher induction program.

Phase 1: The District's New Teacher Induction Program

The school district upon which this case study was based appears to have

a comprehensive new teacher induction program. The new teachers are divided

into two groups: Level 1 is for those new teachers who have two or less years of

teaching experience before being employed in this district. Level 2 is for those

teachers who have more than two years of teaching experience prior to being

hired to teach in this district. The New Teacher Induction Facilitator, when

answering interview question #2, described the thought process behind these

two levels like this:

> Our feeling is, the people who we target with the most intense work are
> the brand-new people, because they're the ones that research has shown
> need the most support, and also are still in a formative stage in their

development as teachers, so that it makes sense to ground them in what we feel is best practices early on in the district. So with that, the new teacher workshops, three of them are for level one new teachers. The level two new teachers are invited to only one. And I try to be very flexible about that, because we define new teacher as a new professional hire. So among our "new teachers" would be psychologists, social workers, people of that nature that don't have traditional classroom jobs. And so when it comes to the new teacher workshop that is required for all of the new hires, I'm very flexible if what we're doing, usually it's classroom based. The majority of our new hires are classroom teachers. So when we have a situation where it's totally not going to be that useful for somebody to attend the workshop, we offer them the opportunity either through their coordinator, sometimes the coordinator will provide an alternative, and other times we, if they have gone to things outside the district in their field, if they can show the evidence of completion, we accept that.

Generally, Level 1 new teachers are required to attend five full days of new teacher meetings in August before school begins. In addition, there are numerous required meetings throughout the course of the school year for new teachers and for their mentors. For the five days in August, the new teachers are divided into like-groups for many of the new teacher meetings such as grades K-2, grades 3-6, grades 7-8, specials (art, music, PE), special education, school psychologists, etc. These like groups receive new teacher inservice training separately from each other in order to address their specific job-related needs.

The main tenets of the program are listed below:

- Five full days of new teacher meetings in August before the school year begins. These meetings included the following activities:
    - Welcome; introductions, explanation of the "District Experience";

- o Luncheon hosted by the Board of Education;
- o Curriculum overview;
- o Detailed curriculum meetings in the areas of mathematics and literacy;
- o Mentoring processes;
- o Demonstration classroom visits;
- o RtI
- o Cultural competency and diversity;
- o Instructional technology; and
- o Benefits.
- Mentor program in which every new teacher is assigned a mentor. The following are the New teacher/Mentoring program goals:
  - o To improve teaching performance with an emphasis on the Danielson Framework for teaching and the implementation of the Common Core State Standards.
  - o To establish a collaborative professional team responsible for providing assistance and support for new teachers and their mentors.
  - o To educate new teachers about district and site-based cultural norms.
  - o To promote self-reflective inquiry and practice among new teachers to develop a positive professional identity.
  - o To increase the retention rate of quality members of the teaching staff during the induction years.
- Year-long new teacher induction meetings (September through April). These meetings are all held at the district office. The following are the main topics addressed at these meetings:
  - o Classroom management;
  - o Learning communities;
  - o Danielson Framework for Teaching;
  - o Analysis of student work;
  - o Parent and family communication;
  - o Mentoring;
  - o Cultural competency;
  - o Differentiation.

In 2008, the Illinois State Teacher Certification Board developed the nine

Standards of Quality and Effectiveness for Beginning Teacher Induction Programs.

These nine standards were used as the conceptual framework to determine

whether the school district being studied for this research project is providing an

appropriate new teacher induction process. Each of the nine standards listed

below is followed by accompanying data culled from the administrator

interviews, the artifacts that were reviewed, and the new teacher and mentor

meeting observations.

> Standard 1: Induction Program Leadership, Administration, and Support
> The induction program has an administrative structure with specified
> leaders who plan, implement, evaluate and refine the program through
> data analysis, program evaluation, and stakeholder communication linked
> to relevant standards.

The school district employs a New Teacher Induction Facilitator who

plans, coordinates, and facilitates the new teacher induction program. This

employee is a retired, National Board Certified teacher and administrator who

spent her career working in this district. She acts as the liaison between the

district administrators, the mentors, and the newly hired teachers, she has

developed and is continually updating the new teacher and mentor induction

meeting agendas and handbooks, and she facilitates all new teacher and mentor

meetings throughout the course of the school year. This facilitator is responsible

for all areas of program planning, implementation, evaluation, and

communication.

When asked about the planning of the new teacher induction process

(interview question #3), all six district-level administrators referred to the work

of the New Teacher Induction Facilitator. When asked about their role in

conducting new the new teacher induction program (interview question #4), the

district-level administrators again referred to the work of the New Teacher

Induction Facilitator, however, three of the administrators assisted during the

new teacher meetings that took place in August before school begins. The

principals' roles in the new teacher induction process are limited. This will be

addressed in the discussion of Standard 4 below.

> Standard 2: Program Goals and Design
> Local program design is focused on beginning teacher development,
> support, retention and improved student learning. The goals are guided
> by current induction research, effective practices, Illinois Standards of
> Quality and Effectiveness for Beginning Teacher Induction Programs, the
> district/school improvement plan and local concerns/context.

According to the district's Teacher Induction/Mentoring Handbook (2013),

there are five goals of this program. These goals, which are listed above, cover

most of the areas detailed in this standard including beginning teacher

development, support, and retention. Two areas related to the research included

in this study that are not specifically stated in the district's goals are "improved

student learning" and the incorporation of instructional technology professional

development to meet the needs of new teachers who may bring some personal

technology skills to the district.

Numerous researchers have found that increasing student achievement

should be a goal in new teacher induction programs if they intend on being

effective (Darling-Hammond, 2000; Hanover Research, 2012; New Teacher

Center, 2012; Wood & Stanulis, 2009). Although the mention of student

achievement is not in the list of goals, the new teacher induction program, as

detailed in the Teacher Induction/Mentor Handbook (2013), focuses on

beginning teacher development, supporting and retaining new teachers, and

improving teacher performance. Upon further review of the artifacts collected

for this research, including the New Teacher Induction Handbook (2013), the

calendar of events for new teachers, and the Teacher Induction/Mentor

Handbook (2013), and one can see that the design of the program incorporates

numerous and extensive professional development in specific curricular areas,

with the objective of improving student learning.

On the other hand, there is no mention of technology in the new teacher

induction goals, and only one hour is dedicated to professional development

during the entire first year of teaching in this district. Numerous researchers

(Behrstock & Clifford, 2009; NAS Recruitment Communication, 2006; NAS

Recruitment Communication, 2006; Prensky, 2001; Prensky, 2012; Rebore &

Walmsley, 2010) have articulated that Generation Y teachers have grown up and

are entering teaching with a high personal comfortable level with technology,

collaboration, and innovation. However, being comfortable with the personal

use of technology and using it for instructional purposes are two different things.

This will be explored later in this chapter.

Standard 3 – Resources
Program leadership allocates and monitors sufficient resources to meet all
goals and deliver program components to all participants.

The school district provides for a part-time new teacher induction

facilitator at a cost of $25,000 per year, and it provides resources for the

materials, supplies, and outside speakers used throughout the NTI process.

Thus, the district leadership has demonstrated the willingness to provide the

financial resources necessary to deliver its new teacher induction program.

Standard 4 – Site Administrator Roles and Responsibilities
Site administrators lead efforts to create a positive climate for the delivery
of all essential program components. Site administrators and program
leadership collaborate to ensure that they are well prepared to assume
their responsibilities for supporting beginning teachers in the induction
program.

The school principals' involvement in the new teacher induction process is minimal in this district. This is evidenced by their answers to certain interview questions. All of the principals were able to articulate that the new teacher induction meetings cover five full days in August, and 4/7 (57%) of the principals stated that mentoring is a part of the program. When asked what their role in the planning of new teacher induction was, the principals stated that they select the mentors for the new teachers, and they provide planning time in their buildings for the new teachers to work with their mentors before school begins. One principal specified that, "We're able to review the week long induction topics and give our feedback as principals. That information was sought when we had someone new take over the role, so we were able to give our feedback there. One afternoon of that week is spent in the building with principals so we can go over building level topics that we need the teachers to know." Another explained that, "The only planning that I'm involved in is the time that's allocated to me at the building level, about three hours of their … I would guess it's probably about 30 hours of training, and I get I think about three hours with them."

As a follow-up question, the principals were asked what their role was in conducting or participating in new teacher activities. Four of the seven

responded that they provide a school-based orientation to the new teachers during one afternoon in August, and three others mentioned that they attend the new teacher luncheon.

Finally, when asked whether they were pleased with their district's new teacher induction program, all seven principals said that they were. For example, one of the principals stated,

> Yes actually I am. I feel like they have really come in with a good understanding of how to start the school year off. Then there are built in days when they are with other new teachers across the district or other new teachers and their mentors throughout the entire school year. There are set days where they will be relieved from classroom duty to go to learn about something else or to follow up and see how things are going. They have this whole official program that lasts the entire school year. Then in Year 2 they still offer additional opportunities but they are voluntary.

Another principal said, "I am. I think they do a great job. They also send out a survey to principals every year, asking how we think it went, if there's any gaps we believe the candidates are coming in missing, and they try to revisit that every year when they plan the next year's sessions."

This standard requires that principals collaborate with the NTI program leadership to "ensure that they are well prepared to assume their responsibilities for supporting beginning teachers in the induction program." One would question whether selecting mentors, providing some indirect input, providing

time for new teachers to work in the building during new teacher week, and

attending a new teacher luncheon meet the criteria for excellence under Standard

4. Interestingly, although the principals do not participate much in the planning

or conducting of the new teacher induction program, all seven of them stated

that they are pleased with the program.

Standard 5 – Mentor Selection and Assignment
Mentors are recruited, selected and assigned using a comprehensive
strategy that includes a clearly articulated, open process and specific
criteria that are developed by and communicated to all stakeholder
groups.

The district under review in this case study has a comprehensive mentor

program that was developed and is coordinated by the current New Teacher

Induction Facilitator. The district's principals are expected to choose the mentors

for their schools based on the needs of the new teachers and the matching

qualifications of the mentor teachers. The principals must use the district's

"Rubric for Mentor Selection" and the district's "Mentor Selection Criteria" when

choosing mentors. A clearly written job description is available which details the

duties and responsibilities of the new teacher mentors. In addition, the job

description provides specific activities, meetings, and training sessions in which

all mentors are required to participate. During the August new teacher

induction week, the principals meet with the mentors and their new teacher

protégés to ensure a smooth start to the mentoring relationship.

The district's comprehensive plan for mentor selection is aligned with

research completed by The Alliance for Excellent Education (2004) which defines

high quality mentoring as "structured mentoring from a carefully selected

teacher or teachers who work in the same field or subject as the new teacher, are

trained to coach new teachers, and can help improve the quality of teachers'

practice" (p. 2). The focus here is on the phrase "carefully selected." This school

district's mentor selection process appears to be carefully thought-out and

implemented.

> Standard 6 – Mentor Professional Development
> Mentor professional development provides a formal orientation and
> foundational mentor training before they begin their work with beginning
> teachers and should continue over the course of the mentor's work with
> beginning teachers. Mentors have time, supported by the program, to
> engage in this mentor learning community and are consistently supported
> in their efforts to assist beginning teachers in their development, with a
> focus on student learning.

Each mentor receives a 200 page mentor handbook that is divided into the

following chapters:

1. Mentoring/Induction Nuts and Bolts
2. Nature of the New Teacher
3. Working with Adults Learners
4. Exploring the Mentor's Role

5. Mentoring Challenges
6. Coaching Strategies
7. Resources for Mentors.

Additionally, the mentors gather four times per year as a group to work with the

New Teacher Induction Facilitator. One of these after school meetings was

observed by this researcher. There were 50 mentors in the meeting room. Under

the direction of the New Teacher Induction Facilitator, the mentors were divided

into small groups to complete some activities revolving around their reflections

of the first month of school. They also completed some goals for the year of

mentoring. The facilitator called these mentor teachers "professional growth

facilitators," and she modeled ways the mentors should work with their

protégés. To start the meeting, the facilitator stated, "If you weren't all wise

people and good models of teaching, you would not have been chosen by your

principals to be mentors." This meeting ended with the facilitator talking about

the importance of developing trust with the new teachers. She asked the

mentors to write what they have done so far to build trust with their protégés,

and she explained how trust goes "beyond congeniality" where a person feels

comfortable to open up and share one's feelings.

The New Teacher Center (www.newteachercenter.org), a national non-

profit organization dedicated to improving student learning by accelerating the

effectiveness of new teachers and school leaders, has created a model of new

teacher induction that includes five key implantation phases. Upon starting

phase 2 which is year one implementation, the model calls for "Mentor

Academies" which continue through years two and three of the new teacher

induction program (http://www.newteachercenter.org/induction-programs).

The professional development given to the mentors in the district under

review in this case study appears to be very comprehensive. Although the

training modules do not continue past the first year of mentoring, the

comprehensive mentoring handbook provides numerous strategies and

resources which, assuming it will be read by the mentors, can be used by the

mentors for years after their official mentoring duties are completed.

Standard 7 – Development of Beginning Teacher Practice
Beginning teachers have regularly scheduled time, provided during the
two year program, to participate in ongoing professional development
that is focused on their professional growth to support student learning.

New teachers in this school district receive regularly scheduled training in

the following areas of teacher practice:

- Classroom management and student discipline;
- Mathematics instruction;
- Literacy instruction;
- Response to Intervention programs;
- Setting up a student-friendly classroom;
- Supporting diversity in the classroom;

- Cultural competencies; and
- Instructional technology.

Based on this standard, the key to a successful NTI program is one that is focused on "professional growth to support student learning." The new teachers in this district receive five full days of training before school starts, and then they receive additional training throughout the school year in the areas listed above. Some of the areas receive a greater focus as determined by the amount of time dedicated to each area. For example, a full day is set aside for training on classroom management, five hours are dedicated to training in the district's math and literacy programs, and four hours are dedicated to cultural competency. However, only one hour is dedicated for instructional technology.

Standard 8 – Formative Assessment
Beginning teachers and mentors participate in formative assessment experiences, collaboratively collecting and analyzing measures of teaching progress, including appropriate documentation, mentor observations and student work, to improve classroom practices and increase student achievement.

Formative assessment experiences are based on the Danielson Framework for Teaching (Danielson, 2007). Each mentor/protégé pair must complete an action plan for each of the four Danielson domains. Included in this assessment process are formative lesson observations conducted by each mentor and based on Domains Two and Three of the Danielson Framework. In addition, all new

teachers are required to analyze student work under the direction of their

mentors, and they are required to show evidence of lesson differentiation to meet

the needs of all learners in the classroom.

Wood and Sanulis (2009) list five goals necessary for quality new teacher

induction. These are:

- Increase novice teachers' retention,
- Promote novice teacher personal and professional well-being
- Improve teacher competence,
- Improve students' academic achievement through improving teacher performance,
- Satisfy mandated requirements related to induction and certification (pp. 4-5).

The Danielson mentor observations and the analysis of student work by the

mentors and protégés fulfill the third and fourth goals listed above.

Standard 9 – Program Evaluation
Programs operate a comprehensive, ongoing system of program development and evaluation that involves all program participants and other stakeholders.

These data collected to support this standard came from the "exit slips"

that the New Teacher Induction Facilitator collected at the end of each new

teacher and mentor meeting. She compiles the information from these slips and

shares these data with the new teachers and the mentors at a later date.

Additionally, the principals are surveyed to capture their assessments regarding the new teacher induction process.

Summary of Phase One

The following table summarizes whether the school district participating in this case study is providing a high quality new teacher induction program or not. With the district's NTI program meeting eight of the nine standards, all indications are that their program should be considered a "High Quality Program" as defined by the *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs* (2008) (see Table 20 below).

Table 20

*Meeting or Not Meeting Illinois New Teacher Induction Standards (*not including instructional technology)*

Illinois New Teacher Induction Standard	Meets	Does Not Meet
Standard 1	X	
Standard 2	X*	
Standard 3	X	
Standard 4		X
Standard 5	X	
Standard 6	X	
Standard 7	X*	
Standard 8	X	
Standard 9	X	

The one area not meeting is Standard 4 (Site Administrator Roles and Responsibilities). As detailed above, the district's principals play a minimal role in planning and conducting the new teacher induction program in this district. Finally, although the district does meet Standards 2 and 7, this is a holistic assessment based on the entire year's worth of NTI activities. Since technology is not mentioned in any of the nine State of Illinois standards, this does not include the district's very minimal incorporation of instructional technology in the NTI plan. That topic will be discussed in Phase 2 below.

Phase 2: The District's Incorporation of Instructional Technology in its NTI Program

To determine what constitutes a high quality new teacher induction program for Generation Y teachers based on these data collected in this study, one first must analyze these data related to the district administrators' understanding of the characteristics of Generation Y and what role these characteristics play on the district's new teacher induction program. In addition, one must analyze the survey responses from the Generation Y teachers in regard to technology professional development. Finally, one must gauge the needs of the Generation Y teachers against the opportunities granted them by the district during their first year of teaching.

Thirteen administrators were interviewed for this case study. At the start

of the interview, each one was asked how many years he or she had worked in

the field of education. Based on their answers, this researcher was able to

develop an estimate as to which generation each administrator belonged. As can

be seen in Table 8, five of the 13 belong to the Baby Boomer generation, six

belong to Generation X, and only two belong to Generation Y. Thus, 11 of the 13

administrators were born before 1977 which would place them in a group that

Prensky (2001) calls "digital immigrants." These are the people who "were not

born into the digital world but have, at some later point in their lives, become

fascinated by and adopted many or most aspects of the new technology" (p. 1).

According to Prensky, "the single biggest problem facing education today is that

our digital immigrant instructors, who speak an outdated language (that of the

pre-digital age), are struggling to teach a population that speaks an entirely new

language" (p. 2).

Consequently, the school district under review is comprised mainly of a

group of administrators who do not belong to the generation of the newest

teachers entering the district. Interestingly, when the 13 administrators were

asked to detail the characteristics of Generation Y (question 12) eight specifically

mentioned how this generation is technologically adept or how they are very

comfortable with technology. This was the most common answer regarding

Generation Y characteristics given by the administrators.

The generation gap between the administration and the new teachers is

especially great at the district-level where none of the district office

administrators believe it is important to ask potential new teachers questions

related to the use of instructional technology in the interview process. By not

asking specific questions related to technology, these administrators are making

an assumption that new teachers are entering the field of education already

possessing the prerequisite knowledge to use technology effectively in their

classrooms. The irony in this situation is that four of the six (67%) of these same

district-level administrators stated that their new teachers are not ready to meet

the district's expectations for the use of technology when they are first hired

(interview question #14). Conversely, six of the seven district principals do ask

interview questions related to the use of instructional technology in the

classroom. These same principals also believe that the new teachers are ready to

use technology their first year in the classroom.

To make sense of these data, one must compare the administrators'

answers regarding Generation Y's ability to incorporate technology their first

year of teaching to the Generation Y teachers' feelings regarding their

experiences with the technology professional development they received during

their first year in the district. New teacher survey question 26 asked the

Generation Y teachers to rate the school district's professional development for

classroom technology use during the new teacher induction process when they

were initially hired as a teacher. The majority of the new teachers did not feel as

if the PD for instructional technology was even moderately effective. Only one

teacher (N=43) thought that the technology PD they received was extremely

effective. Based on the Generation Y teachers' comments, they clearly had

developed strong opinions regarding this lack of professional development. One

teacher stated, "As a new teacher I attended one 1-hour session about technology

and it only glossed over what was available for use and did not explain how to

use the technology provided or how to help my students use the technology

provided." Another teacher wrote, "We did not get any training on the types of

technology available. A quick run down the list is not effective for someone who

used a different tool in another district, or never used any tools at all" (Table 16).

The artifacts collected as data provide evidence that only one hour of new

teacher professional development (over the course of the entire school year) is

dedicated to the use of technology for instruction. As these data from Figure 27

and Table 16 confirm, the new teachers clearly were dissatisfied with the one

hour of PD they received. Generation Y teachers may have grown up as "Digital

Natives" meaning they are native speakers of the digital language of computers,

video games and the Internet (Prensky, 2001), but they are not necessarily

confident in their abilities to use technology for instructional purposes.

Numerous survey questions reinforce these points.

Survey question #9 asked the new teachers to rate their *personal* level of

technology use *before starting their teaching jobs*. One hundred percent answered

in the moderate to extremely high level (see Figure 12) with 74% rating

themselves relatively or extremely high. The follow-up question (#10) asked the

new teachers to rate their *professional* understanding of instructional technology

upon first being hired, and 93% answered at least in the moderate level, with

46% feeling relatively or extremely confident in their abilities. These are

important questions because they can be compared to those data from questions

asking for the amount of time technology is actually used during the school day.

These data from question #14 show that 69% of the new teachers are using

technology at least two hours per day, yet these data from question #15 show

that 90% of the students in these new teachers' classrooms are using technology

two hours or less (see Figure 15). There appears to be a discrepancy between the

amount of time the new teachers are using technology and the amount of time

the students are using technology. One could make the argument that there are

not enough computers available for all of the students, but that would be false.

Question #12 specifically asked the new teachers to rate the level of access their

students had to technology in the classrooms, and 86% answered that the

students have a moderate or relatively high level of access to technology (see

Figure 14). In addition, this specific school district was chosen for this case study

because it is considered an exemplary district in the area of technology.

The new teachers may have felt ready to incorporate technology into their

instruction when first hired, but not all of the administrators would agree with

them. The administrator interviews show mixed opinions regarding the

readiness of new teachers to use technology at the start of their careers (question

14). The majority of the district-level administrators believe that the new

teachers are not ready, while the majority of the principals believe that the new

teachers are ready to incorporate technology into their instructional practices.

Table 21 below details these data.

Table 21

Teacher Readiness to Incorporate Technology into their Classrooms at the Beginning of their Careers

	READY to Use Tech at the Beginning of their Careers	NOT Ready to Use Tech at the Beginning of their Careers
District-Level Admins.	2	4
Principals	6	1

When asked if the district does enough to assist new teachers in the area of educational technology (question 17), the responses were split. Combined, about half of the administrators said yes, the district does enough while the other half said no, the district does not do enough. See Table 22 below for these data.

Table 22

The Amount of Assistance Given New Teachers is/is Not Enough

	The district does enough	The district does NOT do enough
District-Level Admins.	3	2
Principals	4	3

When studying these data, one must ask why the majority of the district-level administrators feel as if the new teachers are not ready to use technology in their teaching at the start of their careers, yet, more of these administrators feel as if the district is doing enough to support these new teachers in technology usage during their first year of teaching in the district.

Summary of Phase Two

Upon review of these data as a whole in order to answer research question 1, one can see that, overall, the school district participating in this case study is providing a comprehensive new teacher induction program that is aligned with the State of Illinois's standards for effective new teacher induction programs. However, there are two exceptions. One is related to Standard 4 of the *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs*. In this instance, the school-level administrators need to take a more active role in the planning and conducting of the new teacher induction meetings. The second exception to the high-quality new teacher induction program offered in this district is in the area of professional development for its Generation Y teachers. The district needs to incorporate a much more comprehensive approach to professional development in the area of instructional technology for its new teachers. The assumption that the district administrators have made regarding

the new teachers being ready to incorporate technology into their classrooms and

their instruction would be incorrect based on these data. The bottom line is that

a high quality new teacher induction program for Generation Y teachers must

have numerous layers based on the specific generational needs of its new

teachers in order for it to be successful (Graham, 2009; Hur & Brush, 2009;

Taranto, 2011). The answers to the next research question will address this topic

more specifically.

Research Question 2

What recommendations should be made for all school districts in order for

them to properly train their new Generation Y teachers in the best uses of

instructional technology for planning, instruction, and assessment?

This researcher will provide six recommendations for school districts in

order for them to properly train their Generation Y teachers in the best uses of

instructional technology. These recommendations will come from these data

presented in this case study and from current research on Generation Y and new

teacher induction.

<u>Recommendation 1:</u> District-level administrators must better understand

the characteristics of Generation Y teachers.

These data presented in this research study have demonstrated that the school administrators have varying viewpoints regarding the characteristics Generation Y teachers bring to the schools. Although the most common answer to interview question 12 (What do you believe are the characteristics of Generation Y?) revolved around being more "technology savvy," not all of the administrators provided this answer (8 of 13 mentioned technology). However, the research is clear that those in Generation Y are very technologically adept in their lives (Behrstock & Clifford, 2009; ; Coggshall, Behrstock-Sherratt, & Drill, 2011; NAS Recruitment, 2006; Rebore & Walmsley, 2010). All school administrators must be knowledgeable in the technological skills Generation Y teachers bring to their schools at the start of their teaching careers.

However, there is more to Generation Y than their skills with technology. In their book *Recruiting and Retaining Generation Y Teachers*, Rebore and Walmsley (2010) state that those teachers born within the Generation Y years have shown the tendencies to:

- Communicate more through technology than in person;
- Value benefits at work;
- Seek career advancement, desire flexibility and higher pay;
- Work in teams and possess high energy;
- Work hard but also enjoy pleasure;
- Can be financially savvy;
- Want constant feedback;

- Work among and with a diverse group of individuals;
- Multitask proficiently; and
- Like change. (p. 5)

Furthermore, "They (Generation Y) like to plan for the future and take a genuine interest in the organization for which the work" (Rebore & Walmsley, 2010, p. 36).

These characteristics are listed as positive traits. However, some of the administrators, especially at the district level, had negative comments interspersed with more complimentary comments regarding Generation Y. For example, Administrator 1 stated, "I think they don't tend to have the same loyalty to authority or organizations that maybe previous generations had." Administrator 2 stated, "The only negative I sometimes see is they don't always recognize that they're not the only one, that things don't always get tailored just to your needs." Administrator 3 feels as if Generation Y is "somewhat naive" and Administrator 4 stated that "They're kind of an entitled group" who have lower expectations of themselves. These comments contradict the characteristics of Generation Y teachers as presented in the research (Howe & Strouse, 2003; NAS Recruitment, 2006; Rebore & Walmsley, 2010).

The school principals, on the other hand, presented a more positive and accurate understanding of the characteristics of Generation Y teachers. More of

the principals commented on technology, but they also made accurate statements

on other topics related to Generation Y. For example, Principal 1 said, "They are

passionate about what they do. What they do has to have meaning. They balance

their lives, their work life with their personal life, and their enjoyment seems to

be very important." Principal 2 specified that they are student focused, eager to

learn, and they accept best practices because it is the right thing to do, and

Principal 5 stated, "I see these teachers are coming in with energy, a willingness

to put in whatever it takes. I think the ones that I've hired are student centered.

I've hired a lot of teachers, and I believe most of them 95% are still in it, still

energized. This is their profession versus this is their job." Thus, the principals

who were interviewed perceive Generation Y teachers differently than their

district office colleagues.

Recommendation 2: Interviews must incorporate questions about the use

of instructional technology for planning, instruction, and assessment.

After becoming trained on the characteristics of Generation Y teachers,

school leaders need to incorporate specific questions regarding the use of

technology in teaching. As has been demonstrated in the research above, the

district-level administrators in this study do not ask such questions of teachers

(interview question 1), yet they believe that the new teachers are not ready to use

technology upon first being hired (interview question 14). These data

demonstrate that the assumption that one can use technology effectively in

teaching simply because he or she is a member of Generation Y is incorrect.

This contradiction can be eliminated by administrators asking a series of

questions related to technology use which will then lead to meeting the needs of

new teachers at the start of their teaching careers. Asking such questions as

"What technological skills which you have acquired in your previous

experiences will assist you in the use of technology in your classroom?" and

"What would you need from the district administration in order to start the year

incorporating technology into your teaching?"

Conversely, six of the seven school principals who were interviewed for

this research study do ask questions related to technology in their teacher

interviews, and interestingly, six of the seven principals also believed that the

new teachers are ready to use technology when they start teaching in the district.

The postulation here is that these principals are separating out the "non-

technologically adept" candidates during the interviewing process so that the

teachers they hire are those candidates who can "hit the ground running" with

instructional technology. This further proves that interview questions related to

instructional technology are crucial for all administrators to be asking all teaching candidates.

Recommendation 3: Develop a two-year long strand of professional development in instructional technology for new teachers and incorporate this into the new teacher induction program.

The artifacts collected as part of this research study documented that one hour was dedicated to technology over the course of the entire first year of the new teacher induction program. This one hour of professional development was presented to the new teachers on the last day of the new teacher induction workshop week in August. There was no indication in any of the interviews, surveys, documents, or observations made by this researcher that additional PD on instructional technology was provided to the new teachers.

Furthermore, throughout the course of the new teacher induction meeting observations there was no expectation that teachers bring or use technology in their learning, and, there is no evidence that the new teachers were given an opportunity to collaborate on their use of technology in their classrooms. This lack of technology training for new teachers comes on the heels of a school district that had recently purchased over 3000 iPads for student and teacher use in the classrooms.

The research is clear that Generation Y teachers demand professional growth and development and have a desire for appropriate workplace leadership (Treuren & Anderson, 2010). Generation Y teachers also desire multiple opportunities for collaboration, differentiated and individualized support, and instructional technology professional development that is current (Coggshall, Behrstock-Sherratt & Drill, 2011).

Training in instructional technology must be offered to new teachers over the course of one or more years as part of a school district's new teacher induction program. As stated by Administrator 6, when asked about the implications of the characteristics of Generation Y on new teacher induction (question 13),

> A lot of us educators make the assumption that because these people come in knowing all this technology, that they automatically know how to use it for instructional purposes, and I don't know if that's really true. Really, that's what I'm trying to figure out. Just because teachers who are coming out of college these days grew up with technology doesn't mean they can use it for teaching. If they can't, then we, as the leaders, have to train them and help them.

Accommodating the needs of Generation Y teachers in the area of instructional technology is important, however, it should be offered in the context of a comprehensive new teacher induction program. Standard 7 of the *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction*

Programs (2008) clearly articulates that "Beginning teachers have regularly scheduled time, provided during the two year program, to participate in ongoing professional development that is focused on their professional growth to support student learning." Instructional technology should be incorporated in the course of a two-year NTI program just like the areas of classroom management, literacy, mathematics, and differentiation of instruction.

Because the school year often starts as a "whirlwind" for new teachers, with these teachers spending a great deal of time developing their classroom management skills and establishing important routines for behavior and learning, the recommendation would be to start the year with some instruction on the functionality of the technology. In other words, train the new teachers on the hardware they will be using to start the school year. Then, later in the first semester, incorporate training on instructional technology for planning, instruction, and assessment.

According to Breaux and Wong (2003) classroom management should be the main focus of the initial induction activities "because without effective classroom management, teaching and learning cannot take place" (p. 45). After a few months, when the new teachers have become more comfortable with their daily schedules of teaching, school leaders should weave the use of technology

for instructional purposes into the new teacher induction program. The specific

topics and modes of professional development for technology will be further

discussed in recommendation 4 below.

Recommendation 4: Survey new teachers regarding their professional

development needs, and then provide differentiated learning opportunities for

them.

In addition to classroom management, Breaux and Wong (2003) suggest

that the following topics be covered in the initial days of new teacher induction.

- Lesson planning;
- Instructional strategies;
- Discipline;
- Local policies and procedures;
- The first days of school;
- Time management;
- Working with parents; and
- Accommodating individual differences.

Subsequently, these authors suggest that the specific needs of the teachers should

determine future in-service topics. Graham (2009) also identifies the staff

development needs for Generation Y teachers by writing that providers of

professional development for Generation Y teachers should include a shift from

instructor-led, content-based training to a more self-directed process. In order

for administrators to assist new teachers in becoming more self-directed, the new

teachers need to be asked what they need in terms of PD. In the current era of technology and Internet use in schools, online surveys such as Survey Monkey™, Google Forms™, or Polldaddy.com™ can quickly and easily be used to assess the needs of the new teachers throughout the first couple months of school. Another way to assess the instructional technology needs of new teachers is through the teacher evaluation process. The administrators who are evaluating teachers can be surveyed as to the needs of the new teachers based on their observations of and post-observation conferences with new teachers.

When considering the unique characteristics of Generation Y teachers as defined by Rebore and Walmsley (2010), professional development for this group should be sensitive of their specific needs as new teachers and learners. For example, Generation Y teachers embrace feedback and change, thus professional development is desirable for them, and it is an activity to which school systems must be committed. Professional development must be "productive for the teachers - it should not be a repeat of something Generation Y teachers just had in their teacher training. Having choice for teachers would improve the outcomes of successful professional development programs" (p. 97). Finally, Taranto (2011) writes that Generation Y teachers prefer choice and differentiation in order to address their PD needs (2011).

These characteristics lead to the concept of blended, or differentiated, professional development as part of the new teacher induction process. Figure 35 supports this with data to show that the Generation Y teachers who took part in this research study would prefer blended PD. This would be contradictory to the new teacher induction process provided for teachers in the school district being studied for this research project. In this case, the new teacher induction facilitator, along with some feedback from the administration, decides the topics and agendas for all of the new teacher induction meetings over the course of the first full year of a new teacher's career in the district. In order to support new teachers during their first two years in a school district, the district leaders need to proactively seek input from these teachers in regard to their learning needs and how best to meet those needs.

Recommendation 5: Incorporate professional development that fits with the characteristics of Generation Y teachers.

Rebore and Walmsley (2010) explain that currently, the most effective professional development structure for new teachers is the concept of professional learning communities. They state that PLCs have an inherent structure with four major focuses that fits well with the needs of Generation Y teachers including: (1) learning rather than teaching, (2) collaboration, (3)

viewing all members of the community as learners, and (4) self-accountability (p. 97).

Collaboration within a learning community also is a theme developed by Taranto (2011). In his article "New-Teacher Induction 2.0," Taranto studied the design, implementation, and evaluation of online learning as part of a new teacher induction program. The quantitative data generated by Taranto's study indicated "a strong acceptance of the online community as an effective component of a new-teacher induction program" (p. 13). Thus, the implications for Generation Y teachers are clear. "As more and more people who have experience and preferences in using digital tools enter the teaching field, the preferred methods of forming professional learning communities will be in the form of new information and communication technologies" (p. 13).

Generation Y teachers have grown up with social media, and they are comfortable using such tools as Google Documents, wikis, and Twitter in their personal and professional lives. This is one of the characteristics that set them apart from their Generation X and Baby Boomer colleagues. Thus, one can make the argument that one component of an effective new teacher induction program should be provided through online study, research, and collaboration with their new-teacher peers. To be clear, the use of social media and other online tools for

new teacher induction and professional development should be in addition to,

and not in lieu of, other methods of teacher in-servicing such as face-to-face

mentoring and group meetings.

Recommendation 6: Principals must play a more involved role in the

planning and conducting of new teacher induction.

Wood (2005) emphasizes that principals have five key leadership roles in

new teacher induction:

1. Culture builder;
2. Instructional leader;
3. Coordinator/Facilitator of mentors;
4. Novice teacher recruiter; and
5. Novice teacher advocate/retainer. (p. 39)

In outlining the importance of principals' support of induction programs, Bartell,

(2004) writes that:

> The support of the site administrator is crucial to the success of the
> induction program at that particular school site. Site administrators need
> to understand and be supportive of the efforts made on behalf of the new
> teachers at their sites. They should understand and support the goals of
> the induction program so that their own advice and counseling is
> consistent with the goals of the program and the vision of teaching that is
> being promoted. They need to support those who will assist and mentor
> the novice teachers at their own site. (p. 49)

Standard four of the State of Illinois's *Standards of Quality and Effectiveness for*

Beginning Teacher Induction Programs (2008) clearly states that site administrators

lead efforts to create a positive climate for the delivery of all essential program components. Site administrators and program leadership should collaborate to ensure that they are well prepared to assume their responsibilities for supporting beginning teachers in the induction program.

The school district under review in this research met eight of the nine standards in this state document. The one standard it did not meet was standard four. Data collected from this research show that the principals play a minor role in the planning and conducting of the new teacher induction program. The principals' main role is to select a mentor for each new teacher. They also carve out time during the new teacher induction week before school starts for the new teachers to work in the schools with their mentors, and they often will attend a new teacher luncheon before the start of the school year. For principals to fulfill Wood's key leadership roles in new teacher induction they will need to be more involved with the new teacher induction process during the course of the entire school year.

Taking this a step further to the use of instructional technology, the principals should model the use of technology in their own work and expect new teachers to use technology in their classrooms. The Nebraska RETC (2006) clearly articulates that school administrators should:

- Model the use of technology in their daily work including communications, presentations, online collaborative projects, and management tasks;
- Expect the use of technology and instruction for all students;
- Maintain awareness of emerging technologies and participate in job-related professional learning technology resources;
- Ensure integration of appropriate technologies to maximize learning and teaching; and
- Involve and educate the school community around issues of technology integration. (p. 5)

By taking a more active and involved role in the planning and conducting of new teacher induction programs, principals can provide the instructional leadership in all areas of the school district, including the use of instructional technology.

Research Question 3

What are the implications for school leaders?

School leaders must better understand the characteristics of the new generation of teachers who have been entering the field of education for the last few years, and who will be entering the profession in droves over the next 10-15 years. School leaders also must be prepared to change the methods being used to provide induction activities to their new teachers. There are certain assumptions that school administrators need to avoid making when planning new teacher induction programs to meet the needs of the members of Generation Y. The first one is that today's university teacher preparation programs are

doing a good job in preparing their graduates to incorporate technology into classroom instruction. The opposite can be observed in the research on pre-service preparation and in those data collected in this research study.

The National Center for Education Statistics (NCES) 2007 reported on education technology used in teacher education programs. In this report, respondents were asked about the extent to which their institutions' teacher education programs for initial licensure taught teacher candidates how to use technology tools for various purposes, including enhancing or enriching classroom instruction, understanding individual student learning styles, assessing individual student progress and challenges, and designing instructional interventions to individualize student instruction. The results are listed below:

- 57% instructed pre-service teachers about how to use technology to augment classroom instruction;
- 17% instructed pre-service teachers on employing technology to assess student achievement;
- 17% trained pre-service teachers on designing instructional interventions to individualize instruction; and
- 15% addressed how to utilize technology to accommodate for various student learning styles. (p. 10)

Those data demonstrate that today's teacher preparation programs are not

meeting the needs of the of Generation Y teachers who are entering the

profession.

These data from this research study lead to similar conclusions. When

asked to reflect on their university experiences with instructional technology

only 13 of the 36 new teachers (36%) referred to taking at least one technology

class during their undergraduate teacher preparation program. Conversely, 23

of the respondents (64%) made some type of statement about their university

technology preparation being poor or nonexistent (see Table 15 for the complete

set of respondent comments). School leaders cannot assume that incoming new

teachers are ready to incorporate technology simply because they graduated

from a university teacher preparation program in the age of technology.

Furthermore, school leaders cannot make the assumption that the new

teachers who belong to Generation Y are automatically ready to successfully

incorporate instructional technology into their classrooms because they are

digital natives who grew up with technology at their fingertips. These data from

this study clearly articulate that Generation Y teachers want and need

professional development in the use of instructional technology. Figures 12 and

13 illustrate that the majority of the Generation Y teachers in this study believed

that their personal and professional skills were moderate to extremely high when

they were first hired, with 85% being moderate or relatively high. These data can

be compared to data in Figure 34 which illustrates that at the end of their first

year of teaching, the Generation Y teachers' understanding of instructional

technology use in the classroom dropped to 82% moderate or relatively high.

This drop can be attributed to the idea that the Generation Y teachers may have

discovered that they were not as prepared to use technology in their classrooms

as they had originally thought when first hired.

To continue with this train of thought, one needs to see that by November

of their first year, the new teachers answered that their students were using

technology two or less hours of the school day which was significantly lower

than the amount the teachers themselves were using technology in the

classrooms (see Figure 16). Clearly, one can make the assumption based on data

collected, that the Generation Y teachers lost some of their confidence in their

abilities to use technology for instruction with students. The new teachers also

rated the school district's professional development for classroom technology

during the new teacher induction process as moderately effective to not effective

at all (see Figure 27). Additionally, the majority rated the quality of the

technology professional development over the course of the first year in the

district as moderate to extremely low (see Figure 30).

The take-away here is that Generation Y teachers need and want specific

training in the use of instructional technology over the course of their first year of

teaching, regardless of their personal technological skills upon first entering the

profession. As a new teacher's first year of teaching progresses, he or she will

begin to learn that the technological skills they possess in their personal lives do

not necessarily transfer to the use of technology in their classrooms. This ability

to be reflective regarding their work is what helps to transform novice teachers

into experienced teachers. According to an article titled "Advancing Excellence

in Technological Literacy: Student Assessment, Professional Development, and

Program Standards," published by the International Technology Education

Society (2003), Professional Development Standard 6 states that "Professional

development will prepare teachers to be responsible for their own continued

growth" (p. 59). Thus, reflective practitioners will need and want effective PD in

the area of instructional technology.

The third incorrect assumption that school leaders are making is that their

current methods for new teacher induction are fully meeting the needs of

Generation Y teachers. Even with a school district that is considered exemplary

in the use of instructional technology to enhance teachers' planning, instruction,

and assessment, the new teacher induction process does not do enough to meet

the technological needs of its new teachers. The research from Graham (2009),

Hur and Brush (2009), Rebore and Walmsley (2010), Taranto (2011) suggests that

Generation Y teachers want professional development, including their new

teacher induction programs, to include more differentiated training based on the

specific needs of individual or groups of Generation Y teachers, more

participation in collaborative online learning communities, and a shift from

instructor-led professional development to a more self-directed approach to PD.

The Generation Y teachers in this study support this in their answer to survey

question 37 where the majority of them called for a blended approach to

professional development (see Figure 35).

The implications for school leaders in new teacher induction, as garnered

from this research study, are clear:

1. Adhere to state requirements regarding new teacher induction

    programs similar to the way the case study school district meets eight

    of the nine standards as developed by the State of Illinois.

2. Train district administrators in the characteristics of Generation Y

    teachers so they are prepared to meet the specific needs of this group

of new teachers who have been, and will continue to, enter the teaching profession.

3. Encourage school principals to take a more active role in the planning and conducting of new teacher induction programs.

4. Add much more professional development on the use of classroom technology for planning, instruction and assessment.

5. Extend the new teacher induction process to continue over the course two years as recommended in Standard 7 of the *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs* (2008).

6. Change the methods for new teacher induction so that they are more aligned with the specific characteristics of Generation Y teachers and the ways Generation Y teachers want and need to learn, including a bended approach with online collaboration, differentiated PD, self-directed learning, and face-to-face meetings in groups and with their mentors.

Limitations of the Study

While this study attempted to gather data on the best induction programs for new teachers, there were limitations to this work.

1. The study of one school district was limiting in scope. A larger

    sampling of school districts may have revealed more information

    regarding new teacher induction programs and their focus on

    instructional technology.

2. The non-tenured teachers who took part in the survey may have been

    reluctant to answer the questions openly and honestly. Although

    anonymity was guaranteed, there was the chance that new teachers

    were hesitant to answer some of the questions.

3. Not all of the district's administrators were interviewed. Thirteen of

    the 27 district-level administrators and principals (48%) agreed to

    participate leaving 14 administrative voices unheard.

4. One of the principals was new to the district, so this person was unable

    to answer certain interview questions due to lack of experiences with

    the new teacher induction program.

5. One of the district-level administrators worked mostly with computer

    hardware and software, so this person was unable to answer certain

    interview questions that were related to teaching with technology.

6. There may have been administrators who were reluctant to answer

    questions openly and honestly during the recorded telephone

interviews. Confidentiality was guaranteed, but there was the

possibility that the administrators were defensive of their induction

program or may not have spoken freely due to fear of ramifications.

7. Only Generation Y teachers were surveyed as opposed to all new

teachers which would include those from the Baby Boomer generation

and Generation X. Although Generation Y teachers will make up the

majority of those participating in new teacher induction programs in

the near future, there will be others participating as well, and these

other teachers may have needs that are different than those identified

for within Generation Y.

8. Generation Y is not homogeneous; Gen Y teachers come from all walks

of life and all different cultures. The research and findings presented

in this dissertation may not represent all Generation Y teachers.

9. With one researcher analyzing these data that was collected, there was

the chance for bias, especially with the researcher's current beliefs and

understandings of technology use in the classroom. Specifically, this

researcher is an elementary school principal who is considered to be a

leader in the use of technology in his work. He has conducted

administrator academy and district-level workshops on this topic, he

models the use of technology within his school community, and he

expects teachers to incorporate instructional technology into their

planning, teaching, and assessing of student learning. To help

minimize such bias, the researcher kept a journal throughout the data

collection process. The use of this journal allowed the researcher to

write his ongoing reflections regarding the potential for bias that may

emerge as these data are being collected. The objective was for the

researcher to remain as unbiased as possible while analyzing and

interpreting these data.

Recommendations for Further Research

While the purpose of this study was to (1) deeply study one school district

that is exemplary in the use of instructional technology to enhance teachers'

planning, instruction, and assessment; (2) to determine how this school district

trains its Generation Y teachers in the use of technology; and, (3) to make

recommendations to educational leaders as to the best plans for teacher

induction in the area of educational technology, additional research may be

called for in the following areas:

1. Study other school districts that are considered to have exemplary new

   teacher induction programs (based on a specific rubric or set of

standards) to see if they incorporate professional development in the

area of instructional technology, and if they do, discover what they

provide to their new teachers in this area.

2. Conduct a similar study to this one which opens the research to all

new teachers as opposed to only Generation Y teachers to learn if those

new teachers in the Baby Boom Generation or in Generation X have the

same needs for technology professional development as Generation Y

new teachers need in their new teacher induction program.

3. Deeply study college and university teacher education programs to

learn what is or is not being taught in the area of instructional

technology for Generation Y pre-service teachers, and then make

recommendations for curricular changes based on these data collected.

4. Complete a comparative study of Generation Y school administrators

to see if their personal knowledge of technology (as digital natives) has

transferred to their use of technology in the areas of instructional

leadership, communication, collaboration, and other aspects of school

leadership.

5. Since this study was limited to an elementary school district, one could

complete a comparative study of high school new teacher induction

programs and of new Generation Y teachers using instructional technology in a high school setting.

6. What does blended professional development look like for Generation Y teachers? What are the specific P.D. processes of engagement necessary for Gen Y teachers to improve their use of technology for instructions?

Summary of Findings

In summarizing the findings, the research questions that drove this study

found that the school district under review has developed a new teacher

induction program that meets all but one of the *Illinois Standards of Quality and*

Effectiveness for Beginning Teacher Induction Programs (2008). Thus, this district

could be used as a model for other districts to follow when developing or

improving their own new teacher induction programs. The only area where this

school does not meet the Illinois standards is in the profound inclusion of site

administrators, namely the school principals, in the planning and conducting of

the new teacher induction program.

Although there is no mention of the use of instructional technology in the

Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction

Programs (2008), this research has brought to light the need for the inclusion of

technology professional development for new teachers over the entire course of

the new teacher induction process. These data collected as part of this study

demonstrated that the Generation Y teachers in this school district do not feel as

if they have received enough or the proper types of training in the use of

technology in their classrooms upon the start of their teaching careers. This

research study further teased out the need for specific instructional technology

training based on the characteristics of Generation Y new teachers who, although

they have grown up in a technological world and are considered to be

technologically adept, are not prepared to use technology for planning,

instruction, and assessment purposes in their classrooms.

In applying this work to the field of educational leadership, six

recommendations were made for all school districts in order for them to properly

train their Generation Y teachers in the best uses of instructional technology.

They are

1. District-level administrators must better understand the characteristics

   of Generation Y teachers;

2. Interviews must incorporate questions about the use of instructional

   technology for planning, instruction, and assessment;

3. Develop a two-year long strand of professional development in

   instructional technology for new teachers and incorporate this into the

   new teacher induction program;

4. Survey new teachers regarding their professional development needs,

   and then provide differentiated learning opportunities for them;

5. Incorporate professional development that fits with the characteristics

   of Generation Y teachers; and

6. Principals must play a more involved role in the planning and conducting of new teacher induction.

Furthermore, the results from this research project have led to the debunking of some common assumptions made by school leaders. First, the assumption that today's pre-service teacher education programs are preparing Generation Y teachers to incorporate technology into their classrooms is false. Second, the assumption that Generation Y teachers are able to effectively incorporate instructional technology into their work as first year teachers because they are digital natives is false. Finally, the assumption that current new teacher induction programs are still viable in the age of the Generation Y teacher is false.

Finally, this study has postulated the following implications for school leaders based on the research and data collected herein:

1. Adhere to state requirements regarding new teacher induction programs similar to the way the case study school district meets eight of the nine standards as developed by the State of Illinois.

2. Train district administrators in the characteristics of Generation Y teachers so they are prepared to meet the specific needs of this group of new teachers who have been, and will continue to, enter the teaching profession.

3. Encourage school principals to take a more active role in the planning and conducting of new teacher induction programs.

4. Add much more professional development on the use of classroom technology for planning, instruction and assessment.

5. Extend the new teacher induction process to continue over the course two years as recommended in Standard 7 of the *Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs* (2008).

6. Change the methods for new teacher induction so that they are more aligned with the specific characteristic of Generation Y teachers and the ways Generation Y teachers want and need to learn, including a bended approach with online collaboration, differentiated PD, self-directed learning, and face-to-face meetings in groups and with their mentors.

The hope of this researcher is that studies such as this one will have an impact on district-level leaders who are developing new teacher induction programs and the school principals who are hiring and training the current generation of new teachers.

The speed at which instructional technology is advancing is astounding, and in 10 years teachers and their students will have a whole new assortment of

technological tools with which to teach and learn. Nonetheless, we still must live in the present and prepare our current Generation Y teachers to effectively incorporate the technology that is available to them in today's modern classrooms.

Thus, the goal, via the new teacher induction process, is to hire, train, and then retain the very best teachers who are able to effectively incorporate today's technology into their planning, instruction, and assessment practices in addition to assisting new teachers' personal and professional well-being, improving teaching competence, and most importantly, improving students' academic achievement.

APPENDIX A

SAMPLE EMAIL REQUEST FOR LIST OF EXEMPLARY DISTRICTS

-----Original Message-----

Subject: Assistance with Doctoral Dissertation

From: David Sherman

To: Mary A. Warren, Director
       Learning Technology Center One Central
       West 40 Intermediate Service Center
       "mwarren@ltc1c.k12.il.us"

Date: 01/20/13

Dear Ms. Warren,

My name is Dave Sherman. I am an elementary school principal in Deerfield, and I am working on my Doctoral Dissertation through Loyola University Chicago. For my project, I am looking for school districts in the Chicago area that would be considered "exemplary" in the use of instructional technology. I was hoping you might have a list of such districts based on your work in suburban Cook County. If so, would you be so kind as to forward the names of these districts to me so I may contact them? If not, do you have any suggestions as to where I might focus my search to find such districts? Are there groups or people out there who may be able to assist me?

Any assistance you could provide me would be extremely helpful.

Sincerely,
Dave Sherman
Principal
South Park Elementary School
1421 Hackberry Rd.
Deerfield, IL 60015
847-945-5895 ext. 2102

APPENDIX B

RETC DOCUMENT

RUBRIC OF ESSENTIAL TECHNOLOGY CONDITIONS (RETC)
FOR NEBRASKA PREK-12 SCHOOLS

Technology Administration and Support			
Key Areas	**Stage 1** **Beginning**	**Stage 2** **Progressing**	**Stage 3** **Significant Progress**	**Stage 4** **Proficient**
Vision Planning and Policy	• Technological vision does not exist • Technological planning is not evident • Policies do not include technological concerns/uses	• Technological vision and planning aligns with district and state • Technological policies protect learners and provide access to learners while aligning with district and state vision and plan	Includes Stage 2 plus: • Technological vision and planning align with district and state plan and integrate into the school's SIP process • Policies align with technological vision and plan and support equitable access for all learners	Includes Stage 3 plus: • Technology vision and plans are regularly reviewed and updated with staff • Policies align with technological vision and plan and support equitable access for all learners and opportunities for the community
Technology Support	• Limited technical support • Technical support response time greater than 24 hours	• Part-time school-based or agency support • Most technical support response time is less than 24 hours	Includes Stage 2 plus: • Full time school-based or agency support capable of trouble shooting basic network and hardware repair including assistive technologies • Technical support response time is less than 8 hours	Includes Stage 3 plus: • Full time school-based or agency support with additional staff (including faculty) to support network and web production • Most technical support response time is less than 4 hours
Instructional Technology Staffing	• School or agency based instructional technology specialist not available	• Part time school or agency based instructional technology specialist	Includes Stage 2 plus: • Full time school or agency based instructional technology specialist	Includes Stage 3 plus: • Equivalent of full time school or agency based instructional technology specialist and additional staff with expertise in specialized areas of integration
Budget	• Line item budget exists for hardware/software purchases and professional development	• Line item budget for maintenance and new purchases of hardware and software with professional development support and opportunities	Includes Stage 2 plus: • Budget for hardware and software makes technology accessible to all students, professional development adequate staffing support, and ongoing costs	Includes Stage 3 plus: • Budget for hardware and software makes technology accessible to all students, professional development, sufficient staffing support, facilities (buildings), and other ongoing costs including investigation of new technologies

Technology Administration and Support			
Key Areas	**Stage 1** **Beginning**	**Stage 2** **Progressing**	**Stage 3** **Significant Progress**	**Stage 4** **Proficient**
Electronic Data Support Systems	• A student information system is not in place or limited to tracking attendance, lunch and grading • Budget system exists • Data is dealt with using various manual and technical means with no centralization or integration	Includes Stage 1 plus: • An assessment system is included in your data management system • Budget system is in place that automates the purchasing and inventory process • Some data is maintained in an enterprise-wide system and the system is used for selected task or reports.	Includes Stage 2 plus: • Add curriculum and lesson planning • Budget system tracks the cash flow to school populations validating equitable access for all learners • A Comprehensive data management system is in place but only used for selected level of improvement needs	Includes Stage 3 plus: • Add curriculum and lesson planning • Budget system tracks the cash flow to individual learners validating equitable access for all learners • Data warehouse and analysis systems are in place and used regularly as part of ongoing evaluation and improvement • The systems are capable of and are being used for all levels of improvement tasks and reporting – school, district and state
Funding	• District, state and federal technology allotments only	• In addition to allotments, the district/school seeks grants and other funding sources such as bond funds, business partnerships, donations, foundations, and other local funds designated for technology facilitating the ability to meet enhanced technology needs and minimal instructional technology needs	• Successfully obtains funding from one source other than their allotment	• Successfully obtains funding from two or more sources other than their allotments

Technology Capacity

Key Areas	Stage 1 Beginning	Stage 2 Progressing	Stage 3 Significant Progress	Stage 4 Proficient
Student Technology Equipment Access	• 10:1 ratio of students to computer equipment five years old or less. • No Universal Access Stations (computer stations equipped with necessary hardware and software to meet the special needs of students with disabilities) • No student access to computers after school.	• No more than 10:1 ratio of students to computer equipment five years old or less. • Universal Access technologies in place. • Student access to computers for after-school care students or by special arrangement.	• No more than 5:1 ratio of students to computer equipment four years old or less. • Universal Access Stations limited to some classrooms and media center. • Open after-school access to computers for all students 1-5 hours per week.	• Every student has computer equipment three years old or less. • Universal Access Stations available in all classrooms. • Open after-school access to computer equipment for all students over 5 hours per week.
Teacher Technology Equipment Access	• Dedicated, up-to-date teacher computer equipment. • One set per 2 or more teachers. • No refresh cycle.	• Dedicated, up-to-date computer equipment for each teacher. • Refresh cycle every 5 years.	• Dedicated, up-to-date computer equipment for each teacher. • Refresh cycle every 4 years.	• Dedicated, up-to-date computer equipment for each teacher. • Refresh cycle every 3 or fewer years.
Internet Access	• Adequate connectivity to the Internet available to support web-based applications only on a few computers.	• Direct connectivity to the Internet at the school and accessible in some rooms. • Adequate distribution of bandwidth to the school to avoid most delays.	• Direct connectivity to the Internet at the school and accessible in all rooms. • Adequate bandwidth to each classroom over the LAN to avoid most delays.	• Anywhere, anytime direct access to the Internet for any educationally relevant application.
Video Capacity	• Video available in the classroom on magnetic or optical media. • Media is available via classroom device such as VCR, or DVD player.	• Capacity to schedule and distribute video over school network to the classroom. • Capacity to receive via satellite or other devices specific to curriculum content and distribute programming to the classroom.	• Capacity to schedule and distribute video over district or cable access network to the classroom. • Two way interactive video conferencing used to connect schools.	• Network-provided video on demand. • Two-way interactive video conferencing used to connect to post-secondary institutions and other education providers.

Technology Capacity

Key Areas	Stage 1 Beginning	Stage 2 Progressing	Stage 3 Significant Progress	Stage 4 Proficient
Distance Learning; Conditions and Capabilities	• Shared access to one-way video and two-way audio.	• Two-way video and audio in at least one classroom.	• Two-way video and audio in more than one classroom.	• Two-way video and audio in every student learning area provides access for all. • Robust network allows interconnections with all other K-12 sites and post-secondary institutions. • Web-based scheduling system allows sites to connect to one another without limitations.
LAN/WAN	• Limited print/filesharing network at each school.	• Most rooms connected to the LAN/WAN with student access. • Minimum 10/100 hubbed network. • Basic filtering software in use.	• All rooms connected to the LAN/WAN with student access. • Minimum 10/100 switched network. • High-end servers serving applications at the school with a replacement cycle of 3 years. • Filtering and virus protection software in use.	• All rooms connected to the LAN/WAN with student access. • Robust WAN with 100 MB/GB and/or fiber switched network that allows for resources (i.e. video streaming, desktop conferencing) • Infrastructure allows easy access to network resources for students and teachers including some wireless connectivity and remote access. • Filtering, virus protection, and security measures, as well as disaster recovery plan in place.
Curriculum-based Tools	• Limited access to some instructional equipment (i.e. televisions, VCR's, digital cameras, scanners, handhelds, programmable calculators). • Tool-based software limited to word processing and spreadsheets.	• Shared use of instructional equipment among groups of teachers. • Tool-based software includes presentation, some graphics and concept mapping.	• Instructional equipment assigned to each teacher/classroom including at least a computer with projection device, TV, VCR, or DVD. • Tool-based software includes some multimedia authoring and video editing.	• Fully equipped classrooms with all the technology infrastructure that is available to enhance student instruction, including all forms of software, digital cameras, scanners, handhelds, and other devices specific to content areas.

Educator Competencies and Professional Development

Key Areas	Stage 1 Beginning	Stage 2 Progressing	Stage 3 Significant Progress	Stage 4 Proficient
Educator Use of Technology	• Teachers use basic computer operations such as email and word processing programs. • At least 25% meet Nebraska Educator Competencies and implement in the classroom.	• Teachers use productivity tools to streamline administrative tasks (grades, attendance, lesson planning, etc.). • At least 50% meet Nebraska Educator Competencies and implement in the classroom.	• Teachers implement various instructional technology strategies that support diverse needs of learners (research, multimedia, presentations, simulations, distance learning, etc.). • Teachers use various forms of technology to communicate with peers and parents. • At least 75% meet Nebraska Educator Competencies and implement in the classroom.	• Teachers use technology to develop new learning environments that are collaborative, interactive, and customized. • Teachers explore and evaluate new technologies and their educational impact. • At least 90-100% meet Nebraska Educator Competencies and implement in the classroom.
Leadership	Administrators • Have limited awareness of benefits and applications of technology in instruction. • Lacks basic computer operations skills. • Know and understand the Nebraska Administrator Competencies in Technology.	Administrators • Recognize benefits of technology in instruction for all students and supports use of technology in instruction. • Expects teachers to use technology for administrative and classroom management tasks; routinely uses technology in some aspects of daily work. • Apply the Nebraska Administrator Competencies in Technology.	Administrators • Expect use of technology and instruction for all students. • Models use in daily work including communications, presentations, on-line collaborative projects and management tasks. • Analyze and determine their proficiencies based upon the Nebraska Administrator Competencies in Technology.	Administrators • Plan budget support for training and expects use of technology in instruction for all students. • Maintain awareness of emerging technologies; participates in job-related professional learning using technology resources. • Ensure integration of appropriate technologies to maximize learning and teaching; involves and educates the school community around issues of technology integration. • Make decisions and adjust behavior based upon the Nebraska Administrator Competencies in Technology.

Educator Competencies and Professional Development

Key Areas	Stage 1 Beginning	Stage 2 Progressing	Stage 3 Significant Progress	Stage 4 Proficient
Professional Development	• 5% or less of technology budget allocated for professional development in technology-related training. • No technology professional development plan in place or existing plan lacks defined progression toward district technology goals. • Technology Professional development plan is not correlated to state and national technology competencies (ISTE/NETS, NECT, NSELT, NACT).	• 6-24% of technology budget devoted to professional development in technology-related training. • Technology professional development plan has some measurable correlation to district technology goals. • Technology professional development plan provides some measurable correlation to state and/or national technology standards (ISTE/NETS, NECT, NSELT, NACT).	• 25-29% of technology budget devoted to professional development in technology-related training. • Technology professional development plan has clearly measurable correlation to district technology goals. • Technology professional development plan provides significant measurable correlation to state and/or national technology standards (ISTE/NETS, NECT, NSELT, NACT).	• 30% or more of technology budget devoted to professional development in technology-related training. • Technology professional development plan has clearly measurable correlation to district technology goals and is evaluated and revised annually to ensure that district technology goals are met. • Technology professional development plan provides significant measurable correlation to state and/or national technology standards (ISTE/NETS, NECT, NSELT, NACT) and plan is revised annually to consider emerging technologies.
Models of Professional Development	• Leader presents information to group of teachers	• Teachers participate in hands-on instruction and use acquired skills to develop an instructional product as a follow-up activity	• Majority of instructional staff participate in coaching, modeling of best practices, scaffolding, and school-based mentoring. • Technology Professional Development includes requirement of classroom integration and student use of technology in the learning process. • Professional development activities include a teacher and a student in a collaborative learning environment	• Learning communities created among instructional staff to provide continuous coaching, modeling of best practices, and school-based mentoring. • Additional professional development available any time, at any level, through a variety of delivery systems (e.g. distance learning, on-line course work, state and national conferences, outside consultants, etc.)

Educator Competencies and Professional Development				
Key Areas	**Stage 1** **Beginning**	**Stage 2** **Progressing**	**Stage 3** **Significant Progress**	**Stage 4** **Proficient**
Effective Use of Electronic Data Support System	• Technology not used to review student assessment information.	• Technology used infrequently to review student assessment information.	• Technology frequently used to review student assessment information.	• Technology regularly used to review student assessment information which results in needed changes in instruction.
Content of Technology Training	• Teachers acquainted with basic technology operations (word processing, email, Internet navigation).	• Teachers learn to use technology in the classroom (i.e. administration, management, and or presentation software; Internet as a research and instructional tool).	• Teachers learn to use technology with curriculum/students (i.e. integration skills for creating learner-centered technology projects using Internet, applications, multimedia presentations, data collection, making accommodations with assistive technologies, etc.). • Integration of technology into instructional strategies to improve teaching and learning	• Teachers learn about emerging technologies and their uses with curriculum/students (i.e., creation and communication of new technology-supported, student-centered projects). • Integration of technology aligned with all content areas and grade levels. • Technology training content supports growth toward national technology standards for teachers, administrators, and students (ISTE/NETS, NECT, NSELT, NACT).

Learners and Learning				
Key Areas	**Stage 1** **Beginning**	**Stage 2** **Progressing**	**Stage 3** **Significant Progress**	**Stage 4** **Proficient**
Student Use of Technology	Knowledge/Understanding • Infrequent use by students as a basic tool for drill and practice, and/or integrated learning labs for the purpose of identification, recollection, memorization, and review of basic facts.	Application • Frequent individual use by students to choose and use informational resources for the purpose of communication and demonstration of knowledge	Analysis/Synthesis • Students regularly use technology for working with peers and experts, evaluating information, analyzing data and content in order to formulate and solve problems. • Students regularly use technology for evaluating individual progress.	Evaluation • Students regularly use technology for working collaboratively in communities of inquiry to propose, implement and assess solution to real world problems. • Students regularly use technology for evaluating and analyzing their own assessment information to improve learning. • Students regularly use technology to publish and effectively communicate their knowledge with the global community.
Technology Integration	• Entry Level technology. • Teacher-centered lectures. • Teachers allow students to use technology to work on individual projects.	• Adoption level of technology use in classroom. • Teacher-directed learning. • Teachers encourage students to use technology for cooperative projects in their own classrooms. • Teachers use technology projects as an alternative form of assessment.	• Adaptation/Appropriation level of technology use in classroom. • Teachers facilitate communities of inquiry for students to collaborate with business and/or community members.	• Innovation level of technology use in classroom. • Student-centered learning. • Teachers act as facilitators in collaboration with external entities to develop 21st century skills (e.g. national or international, business and/or educational communities). • Technology is vital to all curriculum areas and integrated on a daily basis.
Available Technology Curriculum	• Provides some structured instruction, experiences, modules or courses in technology utilization.	• Provides a variety of technology courses/applications on different topics or at different levels to promote life-long learning.	• Technology scope and sequence in place to fulfill Nebraska's Student Essential Learnings in Technology. • Offers at least one sequential program of study in an area of technology.	• Offers multiple sequential programs of study in technology.

Learners and Learning				
Key Areas	**Stage 1** **Beginning**	**Stage 2** **Progressing**	**Stage 3** **Significant Progress**	**Stage 4** **Proficient**
Community Connection	• Minimal connection with parents and community through technology. • Minimal initiatives to increase community technology literacy.	• Basic communication with community utilizing technology. • Offers a technology literacy program for parents and/or community (e.g. family tech night, websites, or videos). • Partnering with business and/or community to offer job shadowing.	• Partners with community to offer after hours training to parents/caregivers. • Students assist in technology skills training parents and community in real-life skills. • Business expertise brought to classroom.	• Plays an active role the promotion of technology literacy within the local community. • Provides outreach programs to promote collaboration between community, business and school. • Students participate in a mentoring program with business and/or community members • Business and community provide financial support and human resources.
Demonstrating Effective Use of Technology in Learning	• Educators understand the potential of technology in the learning process, however the focus remains on productivity.	• Educators apply effective use of technology to the learning task and opportunities thus increasing productivity • Educators use technology as an extension of the learning experience	• Educators provide a variety of technology resources and allow/facilitate student choice of technologies to accomplish their learning	• Educators facilitate effective use of technology in the learning process. • Educators evaluate the impact of technology on the learning process and adjusts future learning experiences/opportunities accordingly

Accountability				
Key Areas	**Stage 1** **Beginning**	**Stage 2** **Progressing**	**Stage 3** **Significant Progress**	**Stage 4** **Proficient**
Student Technology Essential Learnings	Up to 25% of students demonstrate proficiency in the Nebraska Student Essential Learnings in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)	At least 25% of students demonstrate proficiency in the Nebraska Student Essential Learnings in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)	At least 50% of students demonstrate proficiency in the Nebraska Student Essential Learnings in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)	At least 75% of students demonstrate proficiency in the Nebraska Student Essential Learnings in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)
Administrator Technology Competency	Administrators know and understand the Nebraska Administrator Competencies in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html))	Administrators apply the Nebraska Administrator Competencies in Technology in their professional responsibilities (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)	Administrators analyze and determine their proficiencies based upon the Nebraska Administrator Competencies in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)	Administrators make decisions and adjust behaviors based upon the Nebraska Administrator Competencies in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)
Teacher Technology Competencies	Up to 25% of educators demonstrate proficiency in the Nebraska Educator Competencies in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)	At least 25% of educators demonstrate proficiency in the Nebraska Educator Competencies in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)	At least 50% of educators demonstrate proficiency in the Nebraska Educator Competencies in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)	At least 75% of educators demonstrate proficiency in the Nebraska Educator Competencies in Technology (Refer to http://www.nde.state.ne.us/TECHCEN/index.html)

APPENDIX C

TEACHER SURVEY QUESTIONS

Teacher Survey Questions
For Generation Y teachers in a district

1. Please mark your year of teaching in this district.
   o First
   o Second
   o Third
   o Fourth

2. What is your gender?
   o Male
   o Female

3. Please mark the range of years in which you were born.
   o 1976 - 1979
   o 1980 - 1984
   o 1985 - 1989
   o 1990 - 1992

4. What is your highest college degree attained?
   o Bachelors
   o Bachelors plus 30 hours
   o Masters
   o Masters plus 30 hours
   o Doctorate

5. What level do you teach?
   o Pre-k through Grade 2 (Primary)
   o Pre-k through Grade 2 Special Education (Primary)
   o Pre-k through Grade 2 Bilingual Education (Primary)
   o Grade 3 - Grade 5 Regular Education (Intermediate)
   o Grade 3 - Grade 5 Special Education (Intermediate)
   o Grade 3 - Grade 5 Bilingual Education (Intermediate)
   o Grade 6 - Grade 8 Regular Education (Middle/Junior High School)
   o Grade 6 - Grade 8 Special Education (Middle/Junior High School)
   o Grade 6 - Grade 8 Bilingual Education (Middle/Junior High School)

6. Is this your
    - o 1st teaching position?
    - o 2nd teaching position?
    - o 3rd, 4th, or more than 4th teaching position?

7. What is your status in your current district?
    - o 1st year, non-tenured
    - o 2nd year non-tenured
    - o 3rd year non-tenured
    - o 4th year non-tenured
    - o Tenured

8. Is teaching your first career or have you changed careers?
    - o Teaching is my first career
    - o I worked in a different career before becoming a teacher

9. How would you rate your *__personal__* level of technology use before starting your teaching job in this district? (3A)
    - o Extremely low
    - o Relatively low
    - o Moderate
    - o Relatively high
    - o Very high

10. How would you rate your *__professional__* understanding (use) of technology in a classroom setting upon first being hired as a teacher? (3A)
    a. Extremely low
    b. Relatively low
    c. Moderate
    d. Relatively high
    e. Very high

11. What type of preparation did you receive in your college/university pre-service program related to technology for planning, instruction, and assessment?

Text Box

12. How would you rate the level of student access to technology in your classroom? (2A)
    a. Extremely low
    b. Relatively low
    c. Moderate
    d. Relatively high
    e. Very high

13. How would you rate the level of Curriculum-based technology tools in your classroom? (2G)
    a. Extremely low
    b. Relatively low
    c. Moderate
    d. Relatively high
    e. Very high

14. How much time during the school day do **you** use technology for instruction? (3A)
    o Less than 1 hour
    o 1-2 hours
    o 2-3 hours
    o 3-4 hours
    o 4 or more hours

15. How much time during the school day do your **students** use technology for learning? (4A)
    o Less than 1 hour
    o 1-2 hours
    o 2-3 hours
    o 3-4 hours
    o 4 or more hours

16. Please check all of the areas in which you use instructional technology in your work as a teacher. (Check all that apply.) (3A)
    o Direct instruction
    o Communication with parents
    o Communication with colleagues

o   Communication with students
o   Collaborative projects (e.g. Google Docs)
o   Formative assessment (e.g. voting devices)
o   Summative assessment
o   Connecting/communicating outside the classroom
o   Research
o   Other _____

17. My students regularly use technology for working collaboratively in communities of inquiry to propose, implement, and assess solutions to real world problems. (4A)
    o   Strongly disagree
    o   Disagree
    o   Neutral
    o   Agree
    o   Strongly Agree

18. My students regularly use technology for evaluating and analyzing their own assessment information to improve learning. (4A)
    o   Strongly disagree
    o   Disagree
    o   Neutral
    o   Agree
    o   Strongly Agree

19. My students regularly use technology to publish and effectively communicate their knowledge with the global community. (4A)
    o   Strongly disagree
    o   Disagree
    o   Neutral
    o   Agree
    o   Strongly Agree

20. I use instructional technology in new and interesting ways in my classroom. (4B)
    o   Strongly disagree
    o   Disagree

- o   Neutral
- o   Agree
- o   Strongly Agree

21. I regularly provide opportunities for student-centered learning in my teaching. (4B)
    - o   Strongly disagree
    - o   Disagree
    - o   Neutral
    - o   Agree
    - o   Strongly Agree

22. I am a facilitator in collaboration with external entities to develop 21st century skills (e.g. national or international, business, and/or educational communities). (4B)
    - o   Strongly disagree
    - o   Disagree
    - o   Neutral
    - o   Agree
    - o   Strongly Agree

23. In my work as a teacher, technology is vital to all curriculum areas and is integrated on a daily basis. (4B)
    - o   Strongly disagree
    - o   Disagree
    - o   Neutral
    - o   Agree
    - o   Strongly Agree

24. The school district offers multiple, sequential programs of study in technology for students. (4C)
    - o   Strongly disagree
    - o   Disagree
    - o   Neutral
    - o   Agree
    - o   Strongly Agree

25. My students participate in a mentoring program with business and/or community members. (4D)
   o   Strongly disagree
   o   Disagree
   o   Neutral
   o   Agree
   o   Strongly Agree

26. Rate the school district's professional development for classroom technology use during the new teacher training (induction?) process when you were initially hired as a teacher. (3F)
   o   Not effective at all
   o   Minimally effective
   o   Moderately effective
   o   Very effective
   o   Extremely effective

27. Why did you give this rating?

Text Box

28. Was the professional development in the area of: (Check all that apply.) (3C)
   o   Hardware use
   o   Instruction
   o   Communication
   o   Collaboration
   o   Assessment
   o   Other _____

29. How much ongoing professional development (PD) did the school district provide <u>over the course of your first year</u> as a teacher? (3D)
   o   Extremely low amount of PD
   o   Relatively low amount of PD
   o   Moderately amount of PD

- o Relatively high amount of PD
- o Extremely high amount of PD

30. Rate the quality of the professional development in technology you received throughout your first year as a teacher in the district. (3F)
    - o Extremely low quality
    - o Relatively low quality
    - o Moderate quality
    - o Relatively high quality
    - o Extremely high quality
    - o I have not completed my first year

31. Why did you give this rating?

Text Box

32. Who provided professional development during your first year of teaching in the district? (Check all that apply.) (3D)
    - o Superintendent
    - o Assistant supt. for curriculum and instruction
    - o Assistant supt. (director) for human resources
    - o Principal(s)
    - o Director of technology/21st century skills at the district level
    - o Technology coordinator(s) at the school level
    - o Teacher leader/mentor
    - o Outsourced consultant
    - o Secretary/Teaching assistant
    - o Other _____

33. Rate the amount of support you feel you receive from the <u>school</u> administration in the area of instructional technology. (3B)
    - o Extremely low amount of support
    - o Relatively low amount of support
    - o Moderately amount of support
    - o Relatively high amount of support
    - o Extremely high amount of support

34. Rate the amount of support you feel you receive from the <u>district</u> administration in the area of instructional technology. (3B)
    o   Extremely low amount of support
    o   Relatively low amount of support
    o   Moderately amount of support
    o   Relatively high amount of support
    o   Extremely high amount of support

35. How would you rate your ***professional*** understanding of technology in a classroom setting upon completion of your first year as a teacher? (2A)
    o   Extremely low
    o   Relatively low
    o   Moderate
    o   Relatively high
    o   Very high
    o   N/A (I have not completed my first year of teaching)

36. How capable do you think you are to mentor a new teacher in the use of instructional technology in your district? (3D)
    o   Not capable at all
    o   Barely capable
    o   Neutral
    o   Relatively capable
    o   Extremely capable

37. How do you best learn as a professional (professional development options)? (3C)
    o   Professional development meetings
    o   Online
    o   Self-directed
    o   One-on-one tutoring/assistance
    o   Blended

38. What do you need now in the area of professional development to effectively incorporate technology into your instruction?

> Text Box

APPENDIX D

SEMI-STRUCTURED ADMINISTRATOR INTERVIEW QUESTIONS

Administrator Interview Questions

Demographic information (Completed by interviewer)

School District	
Current Position	
Years in Education	
Years in this position	
Educational Background	Masters Masters+ PhD/EdD

Questions asked (Recorded on an iPad and transcribed by Rev.com.)

1. What technological skills do you look for when hiring new teachers, especially as they pertain to the use of technology for planning, instruction, and assessment? (3B)

2. What are the delivery models that your district provides new teachers for their new teacher induction? (3D)

3. What, if any, is your role in the planning of the new teacher induction process in your district? (3B)

4. What, if any, is your role in conducting the new teacher induction process in your district? (3D)

5. What were your experiences with new teacher induction in previous districts? (3B)

6. Are you pleased with the current new teacher induction process in your district? Please explain why or why not. (3F)
7. If not, what would you like to see added or changed? (3F)

8. What are the basic areas of concentration that are included in your current new teacher induction plan? (3F)

9. Are there areas that are over-emphasized or could be reduced/eliminated? (3F)

10. Are there areas that need to be increased or further developed? (3F)

11. Does your district's new teacher induction process extend past the very beginning of the school year? Why or why not? (3D)

12. What do you believe are the characteristics of Generation Y teachers?

13. What implications do these characteristics have on new teacher induction?

14. Do you feel as if new teachers are ready to meet the district's expectations for the use of technology in their classrooms when they are first hired? (3A)

15. What does your district do to prepare new teachers for mastering the functionality of the technology in their classrooms? (1B)

16. What does your district do to prepare new teachers for mastering the use of technology for instruction in their classrooms? (1C)

17. Does your district do enough to assist new teachers in the area of educational technology (functionality or instruction)? Please explain. (1B & 1C)

18. Is there anything you would add to the technology component of the new teacher induction process? (3D)

19. Is there anything else that you would like to add to this discussion?

APPENDIX E

LETTER OF COOPERATION – DISTRICT SUPERINTENDENT

Letter of Cooperation
District Superintendent

August 21, 2013

Project Title: New Teacher Induction Programs: A case study of an exemplary school district and how it prepares its new teachers for the use of instructional technology in the classroom: Lessons for leadership.
Researcher: David B. Sherman, Doctoral student in the Loyola University Chicago School of Education
Faculty Sponsor: Dr. Marla Israel Ed.D. - Dissertation Research Study: Case Study

Introduction:
You are being asked to take part in a research study being conducted by David Sherman for a dissertation study at Loyola University Chicago under the supervision of Dr. Marla Israel Ed.D., Associate Professor in the School of Education.

You are being asked to participate because you are a leader of a school district that has received accolades in the area of instructional technology. Please read this form carefully and ask any question you may have before deciding whether to participate in this study.

Purposes:
The purposes of this dissertation are to identify and deeply study one school district that is considered exemplary in the use of educational technology, to determine how this school district trains its Generation Y teachers in the use of technology, and to make recommendations to educational leaders as to the best plans for teacher induction in the area of educational technology.

Procedures:
If you give consent for your district to participate in this study, you will be asked to allow me to participate in the following activities:

- Administer an online survey to consenting Generation Y teachers in your school district (approximately 20 minutes);

- Conduct semi-structured focused interviews with the district administrators (approximately one hour);
- Complete observations of one or more new teacher induction sessions;
- Complete an artifact review of school district documents related to instructional technology use and new teacher induction processes.

Risks/Benefits:

There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life.

There may be a benefit to having an outside educator review your new teacher induction program, especially in the area of instructional technology. This study may lead to improved new teacher induction and improved use of technology for instruction in the classrooms. In addition, this case study may have implications for school leaders in other school districts.

Confidentiality:

The following will be guaranteed in order to maintain strict confidentiality throughout this research project and beyond:

- Research notes and any documents collected will be stored and made available only to the researcher. When not in use, notes and documents will be secured, and upon completion of the research project will be destroyed.
- Pseudonyms will be used in lieu of actual names when developing this dissertation study.
- A transcription service will be contracted to transcribe the interview responses, and the transcriber will be required to sign a confidentiality agreement.

Voluntary Participation:

Participation in this study is voluntary. If you, the district administrators, and the Generation Y teachers do not want to participate, none of you will have to do so. All participants will be free to not answer any question of withdraw from participation in the study at any time without penalty.

Contacts and Questions:

If you have questions about this research study, please feel free to contact:

The researcher:

- David Sherman at dsherman@luc.edu/ (847) 644-2619

The dissertation director:

- Dr. Marla Israel at misrael@luc.edu/ (312) 915-6336

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

Statement of Consent:

Your signature below indicates that you have read and understand the information provided above, have had an opportunity so ask questions, and agree to allow your district administrators and Generation Y teachers to participate in this research study. You will be given a copy of this form to keep for your records.

_____   _____

Participant's Signature   **Date**

_____   _____

Researcher's Signature   **Date**

APPENDIX F

LETTER OF COOPERATION – DISTRICT ADMINISTRATOR

Letter of Cooperation
District Administrator

September 25, 2013

Project Title: New Teacher Induction Programs: A case study of an exemplary school district and how it prepares its new teachers for the use of instructional technology in the classroom: Lessons for leadership.
Researcher: David B. Sherman, Doctoral student in the Loyola University Chicago School of Education
Faculty Sponsor: Dr. Marla Israel Ed.D. - Dissertation Research Study: Case Study

Introduction:
You are being asked to take part in a research study being conducted by David Sherman for a dissertation study at Loyola University Chicago under the supervision of Dr. Marla Israel Ed.D., Associate Professor in the School of Education.

You are being asked to participate because you are a leader of a school district that has received accolades in the area of instructional technology. Please read this form carefully and ask any question you may have before deciding whether to participate in this study.

Purposes:
The purposes of this dissertation are to identify and deeply study one school district that is considered exemplary in the use of educational technology, to determine how this school district trains its Generation Y teachers in the use of technology, and to make recommendations to educational leaders as to the best plans for teacher induction in the area of educational technology.

Procedures:
If you give consent for your participation in this study, you will be asked to allow me to conduct a semi-structured interview with you that will last approximately 45 minutes. This interview can take place in a location and at a time that is most convenient for you.

Risks/Benefits:
There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life.

There may be a benefit to having an outside educator review your new teacher induction program, especially in the area of instructional technology. This study may lead to improved new teacher induction and improved use of technology for instruction in the classrooms. In addition, this case study may have implications for school leaders in other school districts.

Confidentiality:
The following will be guaranteed in order to maintain strict confidentiality throughout this research project and beyond:
- Research notes and any documents collected will be stored and made available only to the researcher. When not in use, notes and documents will be secured, and upon completion of the research project will be destroyed.
- Pseudonyms will be used in lieu of actual names when developing this dissertation study.
- A transcription service will be contracted to transcribe the interview responses, and the transcriber will be required to sign a confidentiality agreement.

Voluntary Participation:
Participation in this study is voluntary. If you, the district administrators, and the Generation Y teachers do not want to participate, none of you will have to do so. All participants will be free to not answer any question of withdraw from participation in the study at any time without penalty.

Contacts and Questions:
If you have questions about this research study, please feel free to contact:
The researcher:
- David Sherman at dsherman@luc.edu/ (847) 644-2619
The dissertation director:
- Dr. Marla Israel at misrael@luc.edu/ (312) 915-6336
If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

Statement of Consent:
Your signature below indicates that you have read and understand the information provided above, have had an opportunity to ask questions, and agree to be interviewed for the purpose of gathering data for this research study. You will be given a copy of this form to keep for your records.

_____   _____

Participant's Signature   **Date**

_____   _____

Researcher's Signature   **Date**

APPENDIX G

SCRIPT FOR TELEPHONE INVITATION TO PARTICIPATE –

SUPERINTENDENT

Script for Telephone Invitation to
Participate in Research
Superintendent

Hello, my name is David Sherman, and I am a doctoral student in the Educational Leadership program at Loyola University Chicago. School districts are hiring an increasing number of Generation Y teachers, most of whom have grown up in a technological world. I am interested in this specific group of teachers' use of technology in their first few years of teaching. More specifically, I am interested in the new teacher induction programs that school districts are providing to their newly hired teachers in order to prepare these teachers for the incorporation of instructional technology in their classrooms.

As the superintendent of the district, I am seeking your consent for the following:

- to contact your recently hired Generation Y teachers to administer a short **anonymous** survey;

- to ask the district level administrators for their consent to an interview that would last approximately one hour in duration;

- to review district documents related;

- to observe one or more new teacher induction meetings in the near future.

There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life. Everything you and other district employees say will be held in strict confidence and pseudonyms will be used in lieu of actual names when developing the dissertation study. Are you willing to allow me to conduct this study within your school district?

If the response is "Yes:"

Thank you very much. I will send you the survey questions, the interview questions, and a "Cooperation to Participate in the Study" form via the U.S. Mail. Once you return the form, I will contact you to schedule a time to meet and discuss the timeline for completing the surveys and interviews. If you have any questions, please email me a dsherman@luc.edu or call me at 847-644-2619. Thank you and have a good day.

If the response is "No:"

Thank you for your time. If you change your mind or have any questions regarding this research study, please email me at dsherman@luc.edu or call me at 847-644-2619. Have a good day.

APPENDIX H

EMAIL SOLICITING ADMINISTRATOR PARTICIPATION INTERVIEW

September, 2013

Dear District Administrator,

As a doctoral candidate at Loyola University Chicago, I am conducting research for my dissertation entitled: *New Teacher Induction Programs: A case study of an exemplary school district and how it prepares its new teachers for the use of instructional technology in the classroom - Lessons for leadership.* The purpose of this study is to identify what constitutes a high quality new teacher induction program in the area of instructional technology.

More specifically, I am studying new teachers who are part of Generation Y. That is, teachers who were born between the late 1970s and the mid-1990s. You are receiving this email because you were identified by your school district as someone who has taken an active role in your district's new teacher induction program.

I am asking you to please consider participating in a brief face-to-face or telephone interview with me during which time I will ask you questions about your experiences with the school district's new teacher induction program. The survey should take no more than 45 minutes to complete. The interview will be audio recorded and transcribed by a professional transcription service.

Your participation in this study is completely voluntary. This interview will be held at a location that is most convenient for you, **and it will be strictly confidential**. If you are willing to participate, please reply to this email stating such no later than October 1, 2013. I then will contact you via email or telephone to set up a time for the interview. If you choose not to participate, please send a "No" reply at your earliest convenience.

If you have questions about the study, please feel free to email them to me at dsherman@luc.edu, or call me at 847-644-2619. You also may contact Dr. Marla Israel, my dissertation director at misrael@luc.edu/ (312) 915-6336.
If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

I thank you in advance for you participation in this research study.

Sincerely,
David Sherman
Doctoral Candidate, Loyola University Chicago

APPENDIX I

EMAIL SOLICITING TEACHER PARTICIPATION – SURVEY

October 29, 2013

Dear Teacher,

As a doctoral candidate at Loyola University Chicago, I am conducting research for my dissertation entitled: *New Teacher Induction Programs: A case study of an exemplary school district and how it prepares its new teachers for the use of instructional technology in the classroom.* The purpose of this study is to identify what constitutes a high quality new teacher induction program in the area of instructional technology.

More specifically, I am studying new teachers who are part of Generation Y. That is, teachers who were born between the late 1970s and the mid-1990s. You are receiving this email because you were identified by your school district as someone fitting the definition of a Generation Y teacher.

I am asking you to please consider participating in a brief online survey that will ask you questions about your experiences with the school district's new teacher induction program and your experiences embedding instructional technology into your work as a teacher. The survey should take no more than 20 minutes to complete.

<u>Your participation in this study is completely voluntary. This survey will be anonymous and strictly confidential</u>. By completing this survey no later than December 1, 2013 you are agreeing to participate in this research study. If you choose not to participate, please send a "No" reply at your earliest convenience.

If you have questions about the study, please feel free to email them to me at dsherman@luc.edu, or call me at 847-644-2619. You also may contact Dr. Marla Israel, my dissertation director at Dr. Marla Israel at misrael@luc.edu/ (312) 915-6336.

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

I thank you in advance for you participation in this research study.

Sincerely,
David Sherman
Doctoral Candidate, Loyola University Chicago

APPENDIX J

CONFIDENTIALITY AGREEMENT FOR TRANSCRIPTION SERVICES

Confidentiality Agreement
for
Transcription Services

I, _____, transcriptionist, agree to maintain full confidentiality in regard to any and all audio files and documentation received from David Sherman related to his doctoral study: *New Teacher Induction Programs: A case study of an exemplary school district and how it prepares its new teachers for the use of instructional technology in the classroom.*

Furthermore, I agree:

1. To hold in strictest confidence the identification of any individual who may be inadvertently revealed during the transcription of recorded interviews, or in any associated documents.

2. To not make copies of any audio recordings or computerized files of the transcribed interview texts, unless specifically requested to do so by David Sherman.

3. To store all study-related recordings and materials in a safe, secure location as long as they are in my possession.

4. To return all recordings and study-related documents to David Sherman in a complete and timely manner.

5. To delete all electronic files containing study-related documents from my computer hard drive and all other back up devices.

I am aware that I can be held legally liable for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information from the recordings and/or files to which I will have access.

Transcriber's name (printed): _____
Transcriber's signature: _____
Date: _____

APPENDIX K

ILLINOIS STANDARDS OF NEW TEACHER INDUCTION

Introduction and Purpose
for the
Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs

Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs are intended to set forth a clear framework to assist in the development of research-based programs that meet local needs and are responsive to local contexts. The standards are broad and interdependent, describing a vision of a comprehensive and dynamic program for beginning teachers and those who support them. The standards provide a research-based foundation that will guide and support development of induction programs. The intent of these standards is to foster thoughtful, high quality growth and development; they become purposeful and meaningful when implemented fully at the local level. Standards help reflect on best practices and effective structures necessary to the design and delivery of high quality, effective induction programs.

Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs have been developed by a diverse stakeholder group that has broadly reviewed the research on induction and induction programs as well as their implementation. Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs are offered to facilitate and support the development, implementation and continual improvement of induction programs that in turn achieve the goals for induction programs.

In accordance with Article 21A of the 2006 Illinois School Code[1], goals of beginning teacher induction programs are to:
- •provide a system for teacher induction that provides an effective transition into teaching for first and second year teachers

- •improve student performance through improved training, information and assistance for beginning teachers

- •enable beginning teachers to be effective in teaching a range of student populations

- •ensure success and retention of beginning teachers who show promise of becoming highly effective professionals

- •identify beginning teachers who need additional feedback, assistance and training

- •establish an effective, coherent system of formative assessments based on the Illinois Professional Teaching Standards.

Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs

Standard 1:   Induction Program Leadership, Administration, and Support
The induction program has an administrative structure with specified leaders who plan, implement, evaluate and refine the program through data analysis, program evaluation, and stakeholder communication linked to relevant standards.

Standard 2:   Program Goals and Design
Local program design is focused on beginning teacher development, support, retention and improved student learning. The goals are guided by current induction research, effective practices, Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs, the district/school improvement plan and local concerns/context.

Standard 3:   Resources
Program leadership allocates and monitors sufficient resources to meet all goals and deliver program components to all participants.

Standard 4:   Site Administrator Roles and Responsibilities
Site administrators lead efforts to create a positive climate for the delivery of all essential program components. Site administrators and program leadership collaborate to ensure that they are well prepared to assume their responsibilities for supporting beginning teachers in the induction program.

Standard 5: Mentor Selection and Assignment
Mentors are recruited, selected and assigned using a comprehensive strategy that includes a clearly articulated, open process and specific criteria that are developed by and communicated to all stakeholder groups.

Standard 6:   Mentor Professional Development
Mentor professional development provides a formal orientation and foundational mentor training before they begin their work with beginning teachers and should continue over the course of the mentor's work with beginning teachers. Mentors have time, supported by the program, to engage in this mentor learning community and are consistently supported in their efforts to assist beginning teachers in their development, with a focus on student learning.

Standard 7:   Development of Beginning Teacher Practice
Beginning teachers have regularly scheduled time, provided during the two year program, to participate in ongoing professional development that is focused on their professional growth to support student learning.

Standard 8: Formative Assessment
Beginning teachers and mentors participate in formative assessment experiences, collaboratively collecting and analyzing measures of teaching progress, including appropriate documentation, mentor observations and student work, to improve classroom practices and increase student achievement.

Standard 9:   Program Evaluation
Programs operate a comprehensive, ongoing system of program development and evaluation that involves all program participants and other stakeholders.

Standard 1: Induction Program Leadership, Administration, and Support
The induction program has an administrative structure with specified leaders who plan, implement, evaluate and refine the program through data analysis, program evaluation, and stakeholder communication linked to relevant standards.

Induction leadership focuses on allocation of sufficient resources, facilitation of professional development, program oversight and evaluation. They also ensure effective coordination of services and communication for beginning teachers, teacher leaders, mentors, site and district administrators, and other support providers.

Criteria for Quality Program Development:

- Induction leadership, administration, and support are aligned with the relevant Article 21A of the 2006 Illinois School Code (105 ILCS 5/21A).

- Responsibilities for program planning, operation and oversight are clearly defined and program leadership is designated.

- The program leadership implements a high quality program in accordance with state guidelines and state induction standards, as applicable.

- Adequate time, fiscal resources, and appropriate authority are allocated to program leadership, which should include a team of stakeholders that provides support and oversight.

- Stakeholder collaboration is focused on creating a culture of commitment to beginning teacher induction and improving student achievement, and includes teachers, administration, school boards, union/association, and additional professional partners.

- Program leadership participates in professional development to understand, design and implement high quality induction and mentoring.

- Program leadership participates in on-going professional development linking to a professional learning community specifically for program leadership.

- Program leadership uses data to facilitate on-going program planning, implementation, evaluation and improvement.

- The program meets additional criteria specified by local guidelines, as appropriate to this standard.

Standard 2: Program Goals and Design
Local program design is focused on beginning teacher development, support, retention and improved student learning. The goals are guided by current induction research, effective practices, Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs, the district/school improvement plan and local concerns/context.

Program design and goals reflect a sound understanding of research on the unique strengths and needs of individual beginning teachers as they develop over time. Program goals and design include appropriate support activities, professional development, and assessment practices designed to effectively meet the needs of beginning teachers, teacher leaders, mentors, administrators and other support providers. Program goals are explicitly linked to improving teacher quality and retention while raising student achievement.

Criteria for Quality Program Development:

- The program goals are aligned with the relevant Article 21A of the 2006 Illinois School Code (105 ILCS 5/21A), Illinois Professional Teaching Standards (IPTS) and relevant content-area standards.

- The program design includes learning outcomes for participants that recognize the continuum of teacher development and a focus on student learning, with clearly defined participant expectations for program completion.

- The program design provides effective communication among program leadership, mentors, beginning teachers and site administrators. The design of the induction program is consistent with and integrated into the school and district school improvement goals and ongoing professional development initiatives.

- The program design includes high quality mentor selection, training, assessment/evaluation and ongoing support in a mentor learning community.

- The program design defines essential activities including beginning teacher formative assessment, written documentation of beginning teacher/mentor work, analysis of beginning teacher instruction and student learning, and professional development for all stakeholders.

- The program design involves a planned process for program orientation for all participants and ongoing feedback on progress toward program completion in relation to the beginning teacher moving from initial to standard certification.

- The program goals and outcomes around teacher development, retention, support and student learning reviewed and revised as necessary, based on multiple sources of program evaluation data analyzed by program leaders and stakeholders.

Standard 3: Resources
Program leadership allocates and monitors sufficient resources to meet all goals and deliver program components to all participants.

The quality and effectiveness of induction programs rely on the appropriate and thoughtful use of human, time, fiscal and other resources. Program leadership allocates resources in a manner consistent with the stated program rationale, design, goals and, when appropriate, local collective bargaining agreements.

Criteria for Quality Program Development:

- Resources are aligned with the relevant Article 21A of the 2006 Illinois School Code (105 ILCS 5/21A).

- The program leadership allocates adequate resources to ensure an appropriate distribution of funds to support components defined in the program design. This may include materials, release time, salary and benefits, stipends substitute coverage, and other resources.

- The program leadership, program partners and all stakeholders access and coordinate existing professional development resources to effectively align and coordinate with the induction program.

- The program leadership allocates sufficient, sanctioned, protected time essential for high quality induction and mentoring.

- The program leadership monitors resource allocations on a regular basis and makes necessary adjustments.

- The program leadership provides fiscal reports documenting allocation of resources as necessary for accountability and on-going program improvement.

- The program meets additional criteria specified by local guidelines, as appropriate to this standard.

Standard 4:   Site Administrator Roles and Responsibilities
Site administrators lead efforts to create a positive climate for the delivery of all essential program components. Site administrators and program leadership collaborate to ensure that they are well prepared to assume their responsibilities for supporting beginning teachers in the induction program.

Site administrators are crucial to setting the stage for beginning teacher success and are essential partners. Site administrators seek to secure assignments and establish working conditions for beginning teachers that maximize their success. Site administrators communicate with the beginning teachers and mentors in a formal, ongoing process.

Criteria for Quality Program Development:

- Site administrator roles and responsibilities are aligned with the relevant Article 21A of the 2006 Illinois School Code (105 ILCS 5/21A).

- Site administrators participate in appropriate induction professional development and are an integral part of program operation.

- Site administrators collaborate with program leadership to overcome challenging aspects of beginning teacher working environments and other operational and logistical barriers.

- Site administrators facilitate the inclusion of beginning teachers in the learning community and promote the commitment of all staff to supporting beginning teachers.

- Site administrators clearly communicate roles, responsibilities, and expectations for mentors/beginning teachers based on program design development by leadership.

- Site administrators respect the confidentiality of the mentor/beginning teacher relationship.

- Site administrators facilitate the integration of induction practices into professional development initiatives with a focus on student learning.

- Site administrators align their work in support of beginning teachers with the Illinois Standards for Administrative Certification.

- The program meets additional criteria specified by local guidelines, as appropriate to this standard.

Standard 5: Mentor Selection and Assignment
Mentors are recruited, selected and assigned using a comprehensive strategy that includes a clearly articulated, open process and specific criteria that are developed by and communicated to all stakeholder groups.

The selection of well-qualified mentors based on the qualities of an effective mentor is essential to creating programs that support teacher development, teacher retention, and improved student learning. The process for mentor recruitment, selection and assignment includes ample time for communication, application, selection and assignment. Selection is guided by well-defined, explicit criteria that are consistently applied and periodically reviewed.

Criteria for Quality Program Development:

- Mentor selection and assignment is aligned with the relevant Article 21A of the 2006 Illinois School Code (105 ILCS 5/21A).

- Programs are guided by clear selection criteria that represent a commitment to mentors:
  o Demonstrating evidence of effective teaching practice, including demonstration of content knowledge for the appropriate student-age level span
  o Having strong intra-and interpersonal skills, including self reflection of practice and responsiveness to needs of beginning teachers
  o Exhibiting knowledge of pedagogy, context, and the diverse learning needs of both beginning teachers and their students.

- Beginning teachers and their mentors are matched according to relevant factors, including certification, experience, current assignments and/or proximity of location.

- The program has defined a process to address changes or necessary adjustments in the mentor/beginning teacher matches.

- The program meets additional criteria specified by local guidelines, as appropriate to this standard.

Standard 6:   Mentor Professional Development
Mentor professional development provides a formal orientation and foundational mentor training before they begin their work with beginning teachers and should continue over the course of the mentor's work with beginning teachers. Mentors have time, supported by the program, to engage in this mentor learning community and are consistently supported in their efforts to assist beginning teachers in their development, with a focus on student learning.

Professional development includes both the development of knowledge and skills needed to identify and respond to beginning teacher needs, and the development of a collegial community that engages mentors. Awareness of the diverse needs of students and their learning needs, the range of beginning teacher needs, and the ability to structure and provide opportunities that nurture beginning teachers' professional growth and development demand the development of unique abilities and skills of mentors.

Criteria for Quality Program Development:

- Mentor professional development is aligned with the relevant Article 21A of the 2006 Illinois School Code (105 ILCS 5/21A).

- Mentors participate in foundational mentor training, as detailed in Article 21A of the 2006 Illinois School Code (105 ILCS 5/21A).

- Mentors participate in an ongoing professional learning community that supports their reflective practice and their use of mentoring tools, protocols, and formative assessment, as well as relevant district tools and standards.

- The mentor learning community meets for regularly scheduled professional development and fulfills a number of purposes to deepen mentoring skills and advance induction practices.

- Mentors engage in self-assessment and reflect on their own development as teachers and mentors.

- The program meets additional criteria specified by local guidelines, as appropriate to this standard.

Standard 7: Development of Beginning Teacher Practice
Beginning teachers have regularly scheduled time, provided during the two year program, to participate in ongoing professional development that is focused on their professional growth to support student learning.

The development of the beginning teacher's practice is guided by induction research and the Illinois Professional Teaching Standards that describes the needs of beginning teachers, local expectations and priorities. It is also rooted in formative assessment, in which the beginning teacher and mentor collaboratively collect and analyze multiple sources of data and use structured reflection, in an ongoing process, to focus on classroom practice and meeting students' individual needs.

Criteria for Quality Program Development:

- Development of beginning teacher practice is aligned with the relevant Article 21A of the 2006 Illinois School Code (105 ILCS 5/21A).

- Beginning teachers have regularly scheduled learning opportunities, starting with an orientation to the induction program, including an orientation to the community, prior to or at the beginning of the school year and continuing throughout the school year.

- Formal support includes opportunities to interact in beginning teacher-only peer groups, as well as sessions with their mentors, for the purpose of professional learning, problem-solving, and mutual support.

- Professional development is guided by the Illinois Professional Teaching Standards, as well as relevant content area standards, beginning teachers' assessed needs, local instructional needs and priorities.

- The program design provides time to ensure that the quality of the process (e.g. analysis of student work, data collection, observations and reflective conversations) is supported.

- The program meets additional criteria specified by local guidelines, as appropriate to this standard.

Standard 8: Formative Assessment
Beginning teachers and mentors participate in formative assessment experiences, collaboratively collecting and analyzing measures of teaching progress, including appropriate documentation, mentor observations and student work, to improve classroom practices and increase student achievement.

The formative assessment process provides a framework that demonstrates beginning teachers' growth and progress and engages beginning teachers and their mentors in an ongoing, reflective process. The purpose of formative assessment is to improve teaching, as measured by the Illinois Professional Teaching Standards, the Illinois Continuum of Teacher Development and Illinois content standards.

Criteria for Quality Program Development:

- Formative assessment information is used to determine the scope, focus, and content of professional development activities that are the basis of the beginning teacher's initial self-assessment and development of an individual learning plan.

- The formative assessment system is characterized by multiple measures of teaching, including, but not limited to: observation by a mentor, analysis of student work and assessment data, reflection and examination of other teaching artifacts.

- Appropriate documentation is utilized to illustrate the use of formative assessment. Documentation should include evidence such as classroom observation data, student work, teacher inquiry, lesson plans and beginning teacher–mentor communication tools.

- Criteria for levels of beginning teacher development are established and the use of formative assessment allows the beginning teacher and mentor to set clear goals for improving the teacher's level of proficiency.

- Formative assessment and the accompanying documentation and observation data guides mentoring and professional development and is not to be used for formal teacher evaluation or employment decisions.

Standard 9:   Program Evaluation
Programs operate a comprehensive, ongoing system of program development and evaluation that involves all program participants and other stakeholders.

The program evaluation leads to substantive program improvements and refinements that focus on the outcomes of teacher retention, teacher quality and student achievement. Program leadership and stakeholders use program evaluation to ensure program quality and effectiveness.

Criteria for Quality Program Development:

- Program evaluation is aligned with the relevant Article 21A of the 2006 Illinois School Code (105 ILCS 5/21A).

- The criteria for program evaluation are determined by these standards entitled the Illinois Standards of Quality and Effectiveness for Beginning Teacher Induction Programs and local program goals.

- The system of program development includes ongoing program evaluation processes, across all of these Standards, based on information from multiple internal and external sources. Program leadership conducts an annual internal program evaluation.

- Regular collection and reflection of feedback about program implementation quality and effectiveness from all participants is done using formal and informal measures.

- Program leadership analyzes multiple sources of data and shares results with stakeholders in a systematic way.

- The program provides for mentor accountability in a supportive environment through a defined process of communication and documentation.

- Program stakeholders participate in external reviews designed to examine program quality and effectiveness, including ISBE program approval and review processes.

- Program leadership participates in statewide data collection that will inform policymakers and other teacher-quality stakeholders of successes and challenges.

- The program meets additional criteria specified by local guidelines, as appropriate to this standard.

REFERENCE LIST

Achinstein, B., & Athanases, S. (2006). Mentors' knowledge of equity and diversity: Maintaining a bifocal perspective on new teachers and their students. In Achinstein & Athanases (Eds.), *Mentors in the making: Developing new leaders for new teachers* (pp. 38-54). New York: Teachers College Press.

Algozzine, B., Gretes, J., Queen, A., J., & Cowan-Hathcock, M. (2007). Beginning teachers' perceptions of *Clearing House: A Journal of Educational* their induction program experiences. *The Strategies, Issues and Ideas*, *80*(3), 137-143.

Alliance for Excellent Education. (2004). *Tapping the potential: Retaining and developing high-quality new teachers*. Washington, DC. Retrieved on May 12, 2013 from http://www.all4ed.org/files/TappingThePotential.pdf

An, Y,. & Reigeluth, C. (2011-12). Creating technology-enhanced, learner-centered classrooms: K–12 teachers' beliefs, perceptions, barriers, and support needs. *Journal of Digital Learning in Teacher Education, 28*(2), 54-62.

Barnes, G., Crowe, E., & Schaefer, B. National Commission on Teaching and America's Future. 2007. *The cost of teacher turnover in five school districts: A pilot study.* Retrieved from http://www.eric.ed.gov/ERICDocs/ data/ ericdocs2sql/content_- storage 01/0000019b/80/2a/49/03.pdf

Bartell, C. (2004). *Cultivating high-quality teaching through induction and mentoring.* Thousand Oaks, CA: Corwin Press.

Bartlett, L., & Johnson, L. (2010). The evolution of new teacher induction policy support, specificity, and autonomy. *Educational Policy*, *24*(6). Retrieved from http://epx.sagepub.com/content/24/6/847

Behrstock, E., & Clifford, M. (2009, February). Leading gen Y teachers: Emerging strategies for school leaders. *TQ Research and Policy Brief*. National Comprehensive Center for Teacher Quality, U.S. Department of Education.

Blashki, K., Nichol, S., Jia, D., & Prompramote, S. (2007). The future is old: Immersive learning with generation Y engineering students. *European Journal of Engineering Education, 32*(4), 409-520.

Carr, M., McGee, C., Jones, A., McKinley, E., Bell, B., Barr, H. et al. (2000). The *Effects of curricula and assessment on pedagogical approaches and on educational outcomes*. Wellington: Ministry of Education.

Creswell, J. W. (2007). *Qualitative inquiry and research design* (2nd ed.*)*. Thousand Oaks, CA: Sage.

Coggshall, J. G., Behrstock-Sharratt, E., & Drill, K. (2011). *Workplaces that support high-performing teaching and learning: Insights from generation Y teachers.* Naperville, IL: American Institute for Research.

Danielson, C. (2007). *Enhancing professional practice: A framework for teaching* (2nd ed.). Alexandria, VA: ASCD.

Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Educational Policy Analysis, 8*(1).

Davis, B., Sumara, D., & D'Amour, L. (2012). Understanding school districts as learning systems: Some lessons from three cases of complex transformation. *Journal of Educational Change, 13*, 373-399.

deMarrais, K. (2004). Qualitative interview studies: Learning through experience. In K. deMarrais, & S.D. Lapan (Eds.), *Foundations for research* (pp. 51-68). Mahwah, NJ: Erlbaum.

District XX. (2013). District XX Induction/Mentor Handbook.

District XX. (2013). New Teacher Induction Orientation Handbook.

Duncan, A., & Martin, C. U.S. Department of Education, (2010). *A blueprint for reform: Reauthorization of the elementary and secondary education act*. Retrieved from Office of Planning, Evaluation and Policy Development website: http://www2.ed.gov/policy/elsec/leg/blueprint/

Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record, 103*, 1013-1055.

Glazerman, S., Dolfin, S., Bleeker, M., Johnson, A., Isenberg, E., Lugo-Gil, J., et al. (2008). *Impacts of comprehensive teacher induction: Results from the first year of a randomized controlled study. NCEE 2009-2034*. Washington DC: Institute of Education Sciences. Retrieved May 11, 2013 from http://ies.ed.gov/ncee/pdf/20094034.pdf

Goldrick, L., Osta, D., Barlin, D., & Burn, J. (2012). *Review of state policies on teacher induction.* Retrieved from www.newteachercenter.org

Graham, C. (2009). Investing in early career general staff. *Journal of Higher Education Policy and Management, 31*(2), 175-183.

Gray, L., Thomas, N., Lewis, L., Tice, P., & U.S. Department of Education. (2010). *Teachers' use of technology in U.S. public schools: 2009* (NCES 2010-040). Retrieved from National Center for Education Statistics website: http://nces.ed.gov/pubs2010/2010040.pdf

Guba, E., & Lincoln, Y (1981). *Effective evaluation*. San Francisco C A: Jossey-Bass.

Hanover Research. (2012). *New teacher induction programs.* Retrieved from www.hanoverresearch.com

Hanover Research. (2013). *Technology integration frameworks for the K-12 curriculum*. Retrieved from www.hanoverresearch.com

Hovorka, D., & Rees, M. (2009). Active collaboration learning environments: The class of Web 2.0. In H. Scheepers, & M. Davern (Eds.), *Proceedings of the 20th Australasian Conference on Information Systems: ACIS 2009* (pp. 550-561). Melbourne, AU.

Howe, N., & Strauss, W. (2003). *Millennials go to college: Strategies for a new generation on campus*. Great Falls, VA: LifeCourse Associates.

Hur, J., & Brush, T. (2009). Teacher participation in online communities: Why do teachers want to participate in self-generated online communities of K-12 teachers? *Journal of Research on Technology in Education, 41*(3), 279-303.

Illinois Public Act 093-0355. (2004, January 1 effective). *New teacher induction and mentoring*. Retrieved May 14, 2013, from http://www.ilga.gov/legislation/publicacts/fulltext.asp?name=093-0355

Illinois School Code 2006 [105 ILCS 5/21-2 (c) (2) (A)].

Illinois State Teacher Certification Board (ISTCB). (2008). *Introduction and purpose for the Illinois standards of quality and effectiveness for beginning teacher induction programs*.

Inan, F. A., & Lowther, D. L. (2010). Factors affecting technology integration in K-12 classrooms: A path model. *Educational Technology Research and Development, 58*(2), 137-154.

Ingersoll, R. (2001, Fall). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal, 38*(3), 499-534.

Ingersoll, R. M. (2003). The teacher shortage: Myth or reality? *Educational Horizons, 81*(3), 146-152.

Ingersoll, R. M., & Smith, T. M. (2003). The wrong solution to the teacher shortage. *Educational Leadership, 60*(8), 30-33.

International Society for Technology in Education. (2012). *Essential conditions*. Retrieved from http://www.iste.org/standards/nets-for-teachers

International Society for Technology in Education. (2012). ISTE.nets the standards for learning, leading, and teaching in the digital age. In ISTE. Retrieved from http://www.iste.org/standards

International Technology Education Association. (2003). *Advancing excellence in technological literacy: Student assessment, professional development, and program standards*. Retrieved from http://www.iteea.org/TAA/PDFs/AETL.pdf

Johnson, L., Levine, A., Smith , R., & Stone, S. (2010). The 2010 horizon report. Retrieved from http://www.nmc.org/pdf/2010-Horizon-Report.pdf

Kelley, L. (2004). Why induction matters. *Journal of Teacher Education*, *55*(5), 438-448.

Krathwohl, D. R. (2009). *Methods of educational and social science research: The logic of methods* (3rd ed.). Long Grove, IL: Waveland.

Kauffman, D., Johnson, S. M., Kardos, S., Liu, E., & Peske, H.G. (2002). "Lost at sea": New teachers' experiences with curriculum and assessment. *Teachers College Record, 104*(2), 273-300.

Lawless, K., & Pellegrino, J. (2007). Professional development in integrating technology into teaching and learning: Knowns, unknowns, and ways to

pursue better questions and answers. *Review of Educational Research, 74*(4), 575-614.

LeCompte, M., & Preissle, J., with Tesch, R. (1993). Ethnography and qualitative design in educational research (2nd ed.). Orlando, FL: Academic Press.

Lieberman, A., & Miller, L. (2008). *Teachers in professional communities*. New York: Teachers' College Press.

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage.

Lovely, S., & Buffum, A. (2007). *Generations at school: Building an age-friendly learning community*. Thousand Oaks, CA: Corwin Press, Inc.

McCain, T., & Jukes, I. (2001). *Windows on the future: Education in the age of technology*. Thousand Oaks, CA: Corwin Press, Inc.

Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.

Miles, M., & Huberman, A. (1994). *Qualitative data analysis*. Thousand Oaks, CA: Sage Publications.

Minarik, M., Thornton, B., & Perreault, G. (2003). Systems thinking can improve teacher retention. *The Clearing House, 76*(5), 230-234.

Miranda, & Russell. (2011). Predictors of teacher-directed student use of technology in elementary classrooms: A multilevel SEM approach using data from the USEIT study. *Journal of Research on Technology in Education, 43*(4).

NAS Recruitment Communications. (2006). Generation Y: The millenials. Ready or not, here they come (NAS Insights). Cleveland, OH. Retrieved May 18, 2013 from
http://www.nasrecruitment.com/talenttips/NASinsights/GenerationY.pdf

National Center for Education Statistics. (2007). *Educational technology in teacher education programs for initial licensure: Statistical analysis report*. Washington, DC: U.S. Department of Education.

National Council for Accreditation of Teacher Education. (2008). *Professional standards for the accreditation of teacher preparation institutions*. Washington, D.C.

NEA Foundation for the Improvement of Education. (2002). Using data to improve teacher induction programs. Retrieved on May 15, 2013 from http://www.neafoundation.org/downloads/NEA-sing_Data_Teacher_ Induction.pdf

Nebraska Department of Education. (2006). *Nebraska technology plan certification site.* Retrieved December 28, 2012, from http://edweblab.unl.edu/retc/
New Teacher Center. Retrieved from http://www.newteachercenter.org/induction-programs

O'Sullivan, M., & Deglau, D. (2006). Principles of professional development. *Journal of Teaching in Physical Education, 25*, 441-449.

Parsad, B., Jones, J., Greene, B., & U.S. Department of Education. (2005). *Internet access in U.S. public schools and classrooms: 1994-2003* (NCES 2005-015). Washington, DC: National Center for Education Statistics.

Partnership for 21st Century Skills. Retrieved from http://www.p21.org/overview/skills-framework

Patton, M. O. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.

Pence, H., & Macintosh, S. (2011). Refocusing the vision: The future of instructional technology. *Journal of Educational Technology Systems, 39*(2), 173-179.

Petrie, K., & McGee, C. (2012). Teacher professional development: Who is the learner? *Australian Journal of Teacher Education*, *37*(2), 58-72.

Pew Research Center. (2010). Millennials: Confident. Connected. Open to change. *Millennials: A Portrait of the Generation Next*. Retrieved on December 7, 2013 from http://www.pewsocialtrends.org/files/2010/10/ millennials-confident-connected-open-to-change.pdf

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon.* MCB University Press, 9(5), 1-6.

Prensky, M. (2012, May-June). Teaching the right stuff. *Educational Technology*, 1-3.

Raines, C. (2003). *Connecting generations: The sourcebook for a new workplace*. Menlo Park, CA: Crisp Publications.

 Rebore, R., & Walmsley, A. (2010). *Recruiting and retaining generation Y teachers* (1st ed.). Thousand Oaks, CA: Corwin.

Reynolds, L., Bush, E.C., & Geist, R. (2008). The Gen Y imperative. *Communication World*, 19-22. Retrieved May 18, 2013 from http://emerginghealthleaders.ca/Reynolds-GenY.pdf

Richardson, V., & Placier, P. (2001). Teacher change. In V. Richardson (Ed.), *Handbook of Research on Teaching* (4th ed.) (pp. 905-947). Washington, DC: American Educational Research Association.

Schaefer, L., Long, J., & Clandinin, J. (2012). Questioning the research on early career teacher attrition and retention. *Alberta Journal of Educational Research*, *58*(1), 106-122.

Schram, T. H. (2003). *Conceptualizing qualitative inquiry*. Upper Saddle River, NJ: Merrill Prentice Hall.

Smolin, L., & Lawless, K. (2011). Evaluation across contexts: Evaluating the impact of technology integration professional development partnerships. *Journal of Digital Learning in Teacher Education, 27*(3), 93-99.

Snyder, T., Dillow, S. & U.S. Department of Education. (2010). *Digest of Education Statistics 2009* (NCES 2010-013). Washington, DC: National Center for Education Statistics.

Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

State of Nebraska. *Rubric of essential technology conditions*. (2008). Retrieved from http://www.education.ne.gov/techcen/documents/NERETC.pdf

Stanulis, R., Burrill, G., & Ames, K. (2007). Fitting in and learning to teach: Tensions in developing a vision for a university-based induction program for beginning teachers. *Teacher Education Quarterly, 34*(3), 135-147.

Stanulis, R., & Floden, R. E. (2009). Intensive mentoring: Intensive mentoring as a way to help beginning teachers develop balanced instruction. *Journal of Teacher Education, 60*, 112-122.

Staron, M., Jasinski, M., & Weatherly, R. (2006). *Life-based learning: A strength-based approach for capability development in vocational and technical education*. Darlington, NSW: TAFE NSW.

Steckleberg, A., Li, L., Liu, X., & Kozack, M. (2008). A rubric for self-assessment of essential technology conditions in schools. *Computers in the Schools, 25*(1-2), 81-89. Retrieved on July, 2012 from http://cits.haworthpress.com

Strong, M. (2005). *Research brief: Mentoring new teachers to increase retention*. Santa Cruz, CA: New Teacher Center.

Stobaugh, R., & Tassell, J. (2011). Analyzing the degree of technology use occurring in pre-service teacher education. *Educational Assessment, Evaluation, and Accountability, 23*, 143-157.

Taranto, G. (2011). New-teacher induction 2.0. *Journal of Digital Learning in Teacher Education, 28*(1), 4-16.

Treuren, G., & Anderson, K. (2010). The employment expectations of different age cohorts: Is generation Y really that different? *Australian Journal of Career Development, 19*(2), 49-62.

Unleashing the potential of educational technology. (2011). Washington, DC: The Executive Office of the President Council of Economic Advisors.

Vannatta, R. A., & Beyerback, B. (2000). Facilitating a constructivist vision of technology integration among education faculty and preservice teachers. *Journal of Research on Computing in Education, 33*(2), 132-148.

Walker, A., Recker, M., Ye, L., Robertshaw, M., Sellers, L., & Leary, H. (2012). Comparing technology-related teacher professional development designs: A multilevel study of teacher and student impacts. *Association for Educational Communications and Technologies*. Retrieved from http://link.springer.com.flagship.luc.edu/article/10.1007/s11423-012-9243-8/fulltext.html

Watlington, E., Shockley, R., Guglielmino, P., & Felsher, R. (2010). The high cost of leaving: An analysis of the cost of teacher turnover. *Journal of Education Finance, 36*(1), 22-37.

Wells, J., & Lewis, L. (2006). *Internet access in U.S. public schools and classrooms: 1994-2005.* (NCES 2007-020). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved on May 25, 2013 from http://nces.ed.gov/pubs2007/2007020.pdf

Wiebke, K., & Bardin, J. (2009). New teacher support: A comprehensive induction program can increase teacher retention and improve performance. *Journal of Staff Development, 30*(1), 34-39.

Wong, H., & Asquith, C. (2002, December 1). Supporting new teachers. *American School Board Journal, 189*(12), 22-24.

Wong, H. K., & Wong, R. T. (n.d.). Teachers: The next generation. *ASCD Express*. Retrieved on December 27, 2012 from http://www.newteacher.com/pdf/ascd_express_wong_teachers.pdf

Wood, A. L. (2005). The importance of principals: Site administrators' roles in novice teacher induction. *American Secondary Education, 30*(2), 39-62.

Wood, A. L., & Stanulis, R. N. (2009). Quality teacher induction: Fourth-wave (1997-2006) induction programs, p. 3. *The New Educator, 5*. Retrieved on May 15, 2013, from http://www.ode.state.or.us/opportunities/grants/ nclb/title_ii/a_teacherquality/quality-teacher-induction.pdf

Yin, R. K. (2008). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage

VITA

David Sherman grew up in Skokie, Illinois which is a northern suburb of Chicago. He is the son of a retired Chicago Public Schools principal and a retired Skokie school secretary, so education has been in his blood since birth.

David earned his Bachelor of Science degree in Elementary Education from Northern Illinois University in 1985. David earned his Masters of Education degree in Educational Administration and his Type 75 administrative certificate from the University of Illinois at Urbana-Champaign in 1992, and in the fall of 2010 he began the Doctoral program in Educational Administration and Supervision at Loyola University in Chicago, Illinois.

David has taught second and fifth grades at the elementary level and sixth and seventh grades at the middle school level. He was a junior high school assistant principal in Wilmette, Illinois for two years. He was the principal of Jackson Elementary School in Elmhurst, Illinois for nine years, and he is currently serving in his ninth year as the principal of South Park Elementary School in Deerfield, Illinois.

DISSERTATION COMMITTEE

The Dissertation submitted by David B. Sherman has been read and approved by the following committee:

Marla Israel, Ed.D., Director
Associate Professor, School of Education
Loyola University Chicago

Janis Fine, Ph.D.
Associate Professor, School of Education
Loyola University Chicago

Eric Twadell, Ph.D.
Superintendent, Adlai Stevenson High School
Lincolnshire, Illinois