2010

Effectiveness of Group Instructional Technology Staff Development Versus Individualized Training among Middle and High School Teachers

Tina Evans
Old Dominion University

Follow this and additional works at: http://digitalcommons.odu.edu/ots_masters_projects

Part of the Education Commons

Recommended Citation
Evans, Tina, "Effectiveness of Group Instructional Technology Staff Development Versus Individualized Training among Middle and High School Teachers" (2010). OTS Master's Level Projects & Papers. 50.
http://digitalcommons.odu.edu/ots_masters_projects/50

This Master's Project is brought to you for free and open access by the STEM Education & Professional Studies at ODU Digital Commons. It has been accepted for inclusion in OTS Master's Level Projects & Papers by an authorized administrator of ODU Digital Commons. For more information, please contact digitalcommons@odu.edu.
THE EFFECTIVENESS OF GROUP INSTRUCTIONAL TECHNOLOGY
STAFF DEVELOPMENT VERSUS INDIVIDUALIZED TRAINING
AMONG MIDDLE AND HIGH SCHOOL TEACHERS

A RESEARCH STUDY PRESENTED TO THE FACULTY OF THE
DEPARTMENT OF STEM EDUCATION AND PROFESSIONAL
STUDIES
AT
OLD DOMINION UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE
MASTER OF SCIENCE DEGREE

BY
TINA M. EVANS
January 2010
This research paper was prepared by Tina M. Evans under the direction of Dr. John M. Ritz in OTED 636, Problems in Occupational and Technical Studies. It was submitted to the Graduate Program Director as partial fulfillment of the requirements for the Degree of Master of Science.

APPROVAL BY: ___________________________ DATE: ________________

Dr. John M. Ritz
Advisor and Graduate Program Director
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Approval Page</th>
<th>ii</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Tables</td>
<td>v</td>
</tr>
<tr>
<td>List of Figures</td>
<td>vi</td>
</tr>
</tbody>
</table>

## Chapter

### I. INTRODUCTION

- Statement of Problem .................................................................................. 2
- Research Goals ............................................................................................ 2
- Background and Significance ...................................................................... 2
- Limitations ................................................................................................... 4
- Assumptions ................................................................................................ 5
- Procedures ................................................................................................... 5
- Definitions of Terms ................................................................................... 6
- Overview of Chapters .................................................................................. 7

### II. REVIEW OF LITERATURE

- Reasons for Teacher’s Professional Development ...................................... 8
- Instructional Technology Staff Development ............................................. 9
- Teacher’s Needs for Instructional Technology .......................................... 10
- Summary ....................................................................................................... 12

### III. METHODS AND PROCEDURES

- Population .................................................................................................. 13
- Instrument Design ....................................................................................... 13
TABLE OF CONTENTS

Methods of Data Collection ................................................................. 14
Statistical Analysis ............................................................................. 15
Summary ............................................................................................ 15

IV. FINDINGS .......................................................................................... 16
Technology Skills and Qualifications of Teachers......................... 16
Desired Areas of Enhanced Instructional Technology Training ....... 17
New Areas of Instructional Technology Training ......................... 20
Overall Feelings About Staff Development ................................. 22
Summary ............................................................................................ 33

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS ........... 34
Summary ............................................................................................ 34
Conclusions ....................................................................................... 35
Recommendations ............................................................................. 36

REFERENCES .......................................................................................... 38

APPENDICES

Appendix A, Survey .......................................................................... 42
Appendix B, Cover Letter to Teacher .............................................. 45
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TABLE 1</td>
<td>Survey Distribution and Return Data</td>
<td>17</td>
</tr>
<tr>
<td>TABLE 2</td>
<td>Instructional Technology Skills and Qualifications of Teachers</td>
<td>18</td>
</tr>
<tr>
<td>TABLE 3</td>
<td>Desired Areas of Enhanced Instructional Technology Training</td>
<td>20</td>
</tr>
<tr>
<td>TABLE 4</td>
<td>New Areas of Technology Training</td>
<td>21</td>
</tr>
<tr>
<td>TABLE 5</td>
<td>Quality of Instructional Technology Training</td>
<td>25</td>
</tr>
<tr>
<td>TABLE 6</td>
<td>Usefulness of Instructional Technology Training</td>
<td>28</td>
</tr>
<tr>
<td>TABLE 7</td>
<td>Perception of Instructional Technology Training</td>
<td>32</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

FIGURE 1: Quality of Technology Training ................................................................. 24

FIGURE 2: Usefulness of Technology Training .......................................................... 27

FIGURE 3: Perception of Technology Training ............................................................ 31
CHAPTER I
INTRODUCTION

Staff development is a widespread buzzword in an educator's community. Many times, saying these words is all too painful and causes groans and moans throughout the organization. Why is it that "staff development" causes so much anxiety and feelings of dismay? Could it be the timing of training, the content, or are there other factors that contribute to the dread of it? What does a school division consider "successful" staff development? This research project was conducted to evaluate the instructional technology "staff development" received and determine the most effective and efficient way to conduct professional development training services for teachers in Isle of Wight County.

This research takes into account the feelings of the teachers involved in receiving the instructional technology training, the content of the training, the timing of the training, and application of the training after the professional development sessions. Many school divisions use staff development days to start off the school year. In Isle of Wight County, teachers participate in 25 hours of training prior to the opening of school. In addition to this training, an instructional technology integration-training program was developed to give teachers various opportunities to seek professional development during the school year. Recertification points are awarded to teachers for the participation in this training and any other staff development that they complete during their teaching career. Twenty-five recertification points are accumulated during the "Staff Development" week in August. Isle of Wight gives five points per training day as supported by the Virginia Licensure Renewal Manual (1998). In the instructional technology integration-training program, one recertification point is awarded for each
hour of training. Teachers accumulate these points and use them toward recertification of their Virginia teaching license. In Virginia, a licensed teacher must apply for renewal of their license every five years. During those five years, the licensed teacher must have accumulated a total of 180 recertification points to reapply for licensure. One three-credit course taken counts as 90 recertification points (Virginia Licensure Renewal Manual, 2007).

Statement of Problem

The purpose of this study was to determine whether instructional technology training in Isle of Wight County met the needs of the professional staff.

Research Goals

The goals of this research paper were to:

1. Determine current instructional technology skills and qualifications of teachers.
2. Determine areas that teachers want their instructional technology skills enhanced.
3. Determine new areas of instructional technology skills that teachers want.
4. Determine teacher feelings about instructional technology training conducted in Isle of Wight County Schools.

Background and Significance

Staff development is important in any organization, especially in education. Why is it so important in education? As educator’s, there is no limit on how “good” we can get. There is always room for improvement.

Politically, socially, and economically, education is always changing. The students are also changing as well. Decisions, made by Congress and the Department of Education over the years, have structured education. In recent years, these policies have
ranged from required testing of students, from the Literacy Passport Tests (LPT) (1988), Standards of Learning (SOL) (1995), No Child Left Behind (NCLB) (2001), and Annual Yearly Progress (AYP) (2001). Education is under constant reform. It is because of this constant change that it is not surprising that teachers are not excited about staff development. It seems that once a teacher gets accustomed to one way, it is revamped and they are expected to transform, without complaint. The question is, “How can we teach teachers to embrace change? In order for school divisions to create staff development that will be embraced by teachers, staff development must be results-driven, standards-based, and job embedded (NSDC Standards, 2006).

Another aspect that has made a tremendous impact on teaching is instructional technology. If you think of what instructional technology was twenty years ago and what it is today, you can see how teaching and learning have been affected. These factors, along with the expectations of a new generation of students, have put a tremendous responsibility on teachers and validate the necessity of instructional technology staff development.

This study is significant in order to determine the effectiveness of the current instructional technology staff development based on the feelings and integration of technology by the teachers. One of the main goals for technology integration is get away from “teaching about computers and focus on learning with technology” (Jacobsen, Clifford, & Friesen, 2002). It is also important for improving the quality of instructional technology staff development in Isle of Wight County Schools. Teacher quality is the factor that matters most for student learning (Darling-Hammond & Berry, 1998). Therefore, professional development for teachers becomes a key issue in using technology to improve the quality of learning in the classroom (Rodriguez & Knuth,
According to Rodriguez and Knuth (2000), traditional sit-and-get training sessions or one-time-only workshops have not been effective in making teachers comfortable with using technology or adept at integrating it into their lesson plans. Instead, a well-planned, ongoing professional development program that is tied to the school's curriculum goals, designed with built-in evaluation, and sustained by adequate financial and staff support is essential if teachers are to use technology appropriately to promote learning for all students in the classroom (Rodriquez & Knuth, 2000). After researching and evaluating current instructional technology integration practices, the researcher will make suggestions to administration for improvement of future instructional technology professional development.

Limitations

The limitations of this study are the boundaries to which the conclusions will be confined.

1. This study was conducted on the faculties of Windsor High School and Windsor Middle School in Isle of Wight County.

2. The research was completed after the first initial technology integration program in the fall of 2006.

3. All teachers may not have participated in the technology staff development program.

4. The study was limited to instructional technology professional development training.
Assumptions

The statements listed below are assumed to be true in this study:

1. Instructional technology training in Isle of Wight County may not meet the needs of the professional staff.

2. Proper use of instructional technology can improve student learning.

3. Teachers have varying levels of technological skills needed for instructional integration. Some instructional personnel are more savvy to using computers and their supporting technologies.

4. Teachers want their instructional technology skills enhanced.

5. Teachers know new areas of instructional technology training that they want.

6. Teachers have feelings about the instructional technology training that they received.

Procedures

In order to obtain the necessary information to research this topic, a survey for teachers was created and distributed after the technology integration program was implemented in the fall of 2006. The survey determined the current qualifications of teachers, the areas that teachers wanted their skills enhanced, and their feelings about the instructional technology staff development in which they participated. The survey data will be categorized between middle and high school teachers, organized and tallied according to: Current Technology Qualifications, Technology Skills Teachers Want, Perception, Quality, Usefulness, and Alternative Suggestions. The survey data will be used to identify instructional technology sessions that teacher’s feel are important,
technology sessions that need improvement, and will determine future instructional technology staff development wants and needs.

Definition of Terms

The following terms are used in the educator’s community.

1. Professional Development — a comprehensive, sustained, and intensive approach to improving teachers' and principals’ effectiveness in raising student achievement (NSDC, 2009).

2. Staff Development — a term used intermittently for professional development.

3. Recertification points — points awarded for participation in staff development. Usually (1) point is awarded per hour of training. Points are used for renewal of teaching license (Virginia Licensure Renewal Manual, 2007).

4. LPT — Literacy Passport Tests — standardized tests mandated by the state of Virginia that required all students in eighth grade or above to pass in order to receive a Standard of Advanced Studies Diploma in 1996 (Bosher, 1996).

5. SOL — Standards of Learning — the Commonwealth of Virginia’s expectations for student learning and achievement in grades K-12.

6. Highly qualified — teachers must have 1) a bachelor’s degree, 2) full state certification or licensure, and 3) prove that they know each subject that they teach.
7. Professional employees – employees that have teaching certification or endorsement.

Overview of Chapters

In Chapter I of this study, an overview of the research study was described. This chapter reviewed the importance of staff development and discussed a plan to evaluate current practices and procedures. The statement of the problem, research goals, background and significance, limitations, assumptions, procedures, and definitions of established terms supported Chapter I.

A technology integration-training program was developed and implemented in the fall of 2006. Each teacher was awarded one recertification point per hour of technology professional development. After the program was completed, teachers were asked to complete a survey to give an opinion on the quality, usefulness, and perception of the training.

Chapter II of this study will focus on current research and literature in reference to the topic of staff development. Documentation of current practices, educational trends, and research will validate the significance for this study. To accomplish this, the reasons for teacher’s professional development, instructional technology staff development, and teacher needs for instructional technology will be examined.

Chapter III will define and explore the methods and procedures for this study. It will focus on the processes used during data collection. Chapter IV will discuss the findings of the study through data organization and reporting. In Chapter V, the study will be summarized, concluded, and recommendations for staff development for Isle of Wight County will be made.
CHAPTER II

REVIEW OF LITERATURE

This chapter is designed to review literature related to instructional technology staff development. Variables that influence the perception, utilization, and success of instructional technology staff development will be recognized and evaluated to determine the best methods for administering a valuable instructional technology staff development program. These variables will be discussed under the following subheadings: Reasons for Teacher’s Professional Development, Instructional Technology Staff Development, and Teachers’ Needs for Instructional Technology.

Reasons for Teacher’s Professional Development

It is important to understand the rationale behind teacher professional development in order to provide the best opportunities for teachers and to achieve the ultimate goal of increased student learning. One organization that researches and supports teacher’s professional development is the National Staff Development Council (NSCD, 2009). The NSCD researched and developed twelve standards that focus on improving learning of all students by incorporating a well-developed teacher professional development program. The standards for this program provide direction in developing a professional development program. According to the NSCD, it is essential that staff development assist educators in moving beyond comprehension of the surface features of a new idea or innovation to a fuller and more complete understanding of its purposes, critical attributes, meaning, and connection to other approaches (NSCD, 2009). The research conducted by NSCD found that the reasons for teacher’s professional development from the administrative point of view are to organize adults
into learning communities, guide continuous instructional improvement, and support adult learning and collaboration to ensure quality teaching.

Research conducted by Butler (1992) found that effective staff development programs are contingent in three areas: the needs and characteristics of participant learners; program characteristics of purposes, structure, content, process and follow-up; and, organizational characteristics used to support the program. She found that usually the preferred outcome of staff development is information transfer, skill acquisition, or behavior change. The most long-termed results come from conducting staff development with behavior change in mind.

**Instructional Technology Staff Development**

Successful professional development in instructional technology must focus on skill building and must give teachers an incentive to devote the time and energy needed to learn to integrate computer technology into instruction (Tenbusch, 1998). According to Tenbusch (1998), the instructional technology integration program designed must provide: intensive training with teachers to explore new ideas and materials over several sessions; follow-up consultations with mentors to give assistance with implementation; ongoing reflective conversations with colleagues; and observation of other teachers using exemplary techniques of integrating technology. Also according to Tenbusch (1998), it is important to “appeal to teachers at personal level” (p. 3) when it comes to professional development in instructional technology.

Instructional technology staff development programs should focus on pedagogy rather than technology (Jacobsen, Clifford, & Friesen, 2002). “Teachers have to figure out what software applications are good for. The kids will figure out how to drive them” (Jacobsen, Clifford, & Friesen, 2002, p. 381). When you guide teachers to build on what
they already have and are comfortable with, you are more likely to have teachers that will take an interest in integration. As an educator, it is important to be as critical of technology as with any other instructional tool. Teachers must understand that technology is a tool just as a textbook is a tool and how it is utilized will determine student learning. This in itself is the most difficult and abstract concept to grasp as a teacher. Once a teacher understands this concept, the objectives for incorporating technology will change from “learning the application” to “learning with technology”.

Teacher’s Needs for Instructional Technology

Professional development for teachers in instructional technology is crucial. Not because technology is changing so rapidly and teachers should “learn the technology”, but to learn ways to integrate is the key to reaching students today. Students are very different from students twenty years ago because of technology. Active learning and multi-tasking is the manner in which our students are now acclimatized.

Students are advanced in the “digital age” because technology is native to them (Prensky, 2001). Students spend a tremendous amount of time utilizing technology in their daily activities. Prensky (2001) pegs students whom have grown-up with technology as “Digital Natives” and teachers who were not “born” into the digital world as “Digital Immigrants”. “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” (Prensky, 2001, p. 2). So, how do we bridge the gap? What are teacher’s needs for instructional technology?

The instructional technology that should be focused on are strategies to incorporate the technology into the lesson. Teachers are content masters. They know the content of the subject they are teaching; however, the challenge to teachers in this new day and age
is to engage the learner for the entire class period. Digital Natives thrive in multi-tasking environments, which makes it a demanding environment to the digital immigrant.

Technology is changing so rapidly, by the time teachers learn to incorporate one technology, for example, Powerpoint™, the digital native is bored with it, unless, the teacher is utilizing technology in multiple ways and allows the student choices and pushes the student to take responsibility for their learning through technology. For example, instead of having students create a Powerpoint™ slideshow, have them create a game, or use Powerpoint™ in a way that is unordinary. How do we get teachers to the level of integration and not just utilization?

There are many factors that have to be considered when developing an appropriate instructional technology program (Brand, 1997). What are the teacher feelings about technology integration? Do they have time to learn it? What are the individual strengths and weaknesses of the teachers? What are their individual needs? According to Brand (1997), in an article written in the Journal of Staff Development, there are a number of elements or “teacher needs” that define an effective staff development program.

1. Provide sufficient learning time so teachers will learn to use computers effectively for personal and instructional uses.

2. Address individual teacher differences and supplement individual strengths, being sensitive to each teacher’s expertise and experience.

3. Allow flexibility in programming and instructional learning opportunities.

4. Invest in individuals who are experienced in both technology and curriculum at either the school or district level.

5. Design instructional environments around collaborative problem
solving and cooperative learning.

6. Support and celebrate a teacher’s commitment to educational computing by providing incentives, remuneration, and recognition.

7. Provide training and related instruction that allows time for continued, ongoing learning, and on-the-job support.

8. Avoid isolating technology as a separate discipline. Provide an instructional focus that illustrates how technology can support educational objectives.

9. Design instruction and activities that engage teachers both intellectually and professionally.

10. Develop school administrators who encourage the technological development of teachers.

Summary

In Chapter II, publications were reviewed to gain an understanding of professional development, to explore instructional technology staff development, and to examine teacher’s needs for instructional technology. When considering the organization of Chapter II, works by the NSCD and publications by several leaders in the field of instructional technology were utilized. These leaders were considered knowledgeable experts in the realm of instructional technology education. Also, many online resources, including several journal databases were used to unveil practical strategies for employing viable instructional technology staff development. Chapter III will describe the methods and procedures applied by elaborating on the population, instrument design, methods of data collection, and the statistical analysis of this study.
CHAPTER III

METHODS AND PROCEDURES

Chapter III will examine the methods and procedures to be used to gather and interpret the data from this research. This chapter will discuss the population, instrument design, methods of data collection, statistical analysis, and conclude with a summary of information discussed.

Population

The population of this research study was the teachers of Windsor Middle and Windsor High School employed by Isle of Wight County Schools during the school year 2006-07. In this study, 70 teachers were asked to complete a survey related to their experience in instructional technology training.

Instrument Design

A survey was developed to gather data of the instructional technology staff development needs and wants of the teachers in Isle of Wight County. The survey was divided into four categories: Instructional Technology Skills and Qualifications of Teachers, Desired Areas of Enhanced Instructional Technology Training, New Areas of Instructional Technology Training, and Overall Feelings About Instructional Technology Staff Development.

In the first section of the survey, teachers were asked to disclose the instructional technology training that they had participated in prior to the completion of the survey. The second section of the survey asked teachers to choose instructional technology training sessions that they wanted to see repeated. In the third section, teachers were asked to choose two new instructional training sessions that they wanted offered. The final section of the survey addressed the feelings of the teachers regarding the
instructional technology training they received. The survey covered the quality, usefulness, and perception of the instructional technology training in which they participated.

The survey was designed to encourage reflection on instructional technology staff development and stimulate responses for future best practices. A Likert Scale with responses of Strongly Agree, Agree, Not Sure, Disagree, and Strongly Disagree was used to formulate an overview of the training program. Overall, the survey was designed to support the goals of this research study which were: determine current technology skills and qualifications of teachers; determine areas that teachers want their technology skills enhanced; determine new areas of instructional technology skills that teachers want; and determine teacher feelings about instructional technology training conducted in Isle of Wight County Schools. The data collected should also determine the perception of instructional technology staff development, if it is effective and efficient, and if alternative methods of staff development would better suit the employees of Isle of Wight County. See Appendix A for a copy of the survey.

Methods of Data Collection

The initial survey was distributed to Windsor High School in their mailboxes in June 2007. This method of distribution yielded a poor turn-in rate; therefore, an alternate method of distribution was chosen for Windsor Middle School. Surveys were distributed and reviewed in small team meetings. The surveys were completed and turned in at the end of the meeting. This was important to ensure return of the majority of surveys. There was a cover letter that was distributed with the surveys that explained the purpose of the survey. See Appendix B for a copy of the cover letter.
Statistical Analysis

The survey data were tabulated by the four categories and then placed into tables and figures. In order to analyze the data, the mean was used and the percentage calculated. The percentage of responses and the number of responses to each answer were also summarized.

Summary

In Chapter III, the methods and procedures for collecting and analyzing the data retrieved in the research study were explored. The population was comprised of 70 Windsor Middle School and Windsor High School teachers. The instrument that was used to collect the data for this research project was a Likert-scaled survey. The Likert-scaled survey was chosen because the overall feelings about the instructional technology staff development in which they participated were being considered. The survey was distributed via teacher mailboxes at Windsor High School and in a small group setting at Windsor Middle School with a cover letter attached. At Windsor High School teachers were asked to complete the surveys by a particular date, at Windsor Middle School teachers completed the survey during their grade level meetings and were collected at the end of the meeting. The statistical analysis section of this chapter explained how the data collected from the survey would be tabulated and analyzed via mean and displayed in tables and figures. In Chapter IV, the findings of the data collected will be summarized and described with the use of tables and figures.
CHAPTER IV

FINDINGS

The problem of this study and the purpose of this chapter were to determine if instructional technology staff development met the needs of the teachers in Isle of Wight County. Chapter IV disaggregates the data from the survey given to the teachers concerning instructional technology staff development. Of the seventy surveys distributed to teachers, fifty were returned, creating a 71% return. The survey was divided into four categories: Instructional Technology Skills and Qualifications of Teachers, Desired Areas of Enhanced Instructional Technology Training, New Areas of Instructional Technology Training, and Overall Feelings About Instructional Technology Staff Development. In the first three areas of the survey, the responses were factual; “these were the instructional technology training sessions in which I was a participant, these were instructional technology training sessions that I missed but want repeated, and these are the new instructional technology training sessions that I would like to see offered.” The last section of the survey was more arbitrary. Teachers were asked to give their opinion on the instructional technology training that they received and to express their feelings about numerous aspects of the instructional technology training.

At Windsor High School, 38 surveys were distributed to teachers and 22 of those surveys were completed and returned, which represents a return rate of 58%. At Windsor Middle School, 32 surveys were distributed and of those surveys, 28 were completed and returned, which represents a return rate of 87%. The overall response rate of returned surveys from both schools was 71%. See Table 1.
TABLE 1

SURVEY DISTRIBUTION AND RETURN DATA

<table>
<thead>
<tr>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys Distributed at Windsor High</td>
<td>38</td>
</tr>
<tr>
<td>Survey Responses from Windsor High</td>
<td>22</td>
</tr>
<tr>
<td>% Return from Windsor High</td>
<td>58%</td>
</tr>
<tr>
<td>Surveys Distributed at Windsor Middle</td>
<td>32</td>
</tr>
<tr>
<td>Survey Responses from Windsor Middle</td>
<td>28</td>
</tr>
<tr>
<td>% Return from Windsor Middle</td>
<td>87%</td>
</tr>
</tbody>
</table>

| Total Surveys Distributed | 70 |
| Total Survey Responses    | 50 |
| Overall Response Rate     | 71%|

Technology Skills and Qualifications of Teachers

The first section of the survey addressed the instructional technology training sessions that teachers participated in during the fall of 2006. Each training session was listed with the number of participants at each school and the percentage of teachers trained in each session at each school. At Windsor High School there were eight teachers trained in Beginning Powerpoint. This yielded 36% percent of teachers trained in Beginning Powerpoint at Windsor High. At Windsor Middle School, there were 29% or eight Windsor Middle School teachers who received instructional technology training in Beginning Powerpoint. In Intermediate Powerpoint training, there were three (14%) Windsor High and eight (29%) Windsor Middle School participants. United Streaming Level 1 training was given to 27% or six Windsor High teachers and 32% or nine
Windsor Middle teachers. United Streaming Level 2 training had three participants at Windsor High and three participants at Windsor Middle. This yields 14% of the teachers surveyed at Windsor High whom received United Streaming Level 2 training and 11% of Windsor Middle teachers whom received the training. Interwrite Schoolpad Level 1 had three (14%) participants of Windsor High teachers, and 6 (21%) participants of Windsor Middle teachers. Interwrite Level 2 had zero participation at both schools. iMovie training was given to five (23%) of Windsor High teachers and eight (29%) of Windsor Middle School teachers. Digital Camera in the Classroom instructional technology training was given to three (14%) Windsor High teachers and one (4%) Windsor Middle teachers. Of the teachers who responded to the survey, six (27%) of the Windsor High teachers and nine (32%) of the Windsor Middle School teachers did not participate in any training at all. See Table 2.

**TABLE 2**

**INSTRUCTIONAL TECHNOLOGY SKILLS AND QUALIFICATIONS OF TEACHERS**

<table>
<thead>
<tr>
<th>Training Session</th>
<th>Windsor High Participants</th>
<th>% of teachers trained (WHS)</th>
<th>Windsor Middle Participants</th>
<th>% of teachers trained (WMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beginning Powerpoint</strong></td>
<td>8</td>
<td>36%</td>
<td>8</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Intermediate Powerpoint</strong></td>
<td>3</td>
<td>14%</td>
<td>8</td>
<td>29%</td>
</tr>
<tr>
<td><strong>United Streaming Level 1</strong></td>
<td>6</td>
<td>27%</td>
<td>9</td>
<td>32%</td>
</tr>
<tr>
<td><strong>United Streaming Level 2</strong></td>
<td>3</td>
<td>14%</td>
<td>3</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Interwrite Schoolpad Level 1</strong></td>
<td>3</td>
<td>14%</td>
<td>6</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Interwrite Schoolpad Level 2</strong></td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>iMovie</strong></td>
<td>5</td>
<td>23%</td>
<td>8</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Digital Camera in the Classroom</strong></td>
<td>3</td>
<td>14%</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td><strong>No training</strong></td>
<td>6</td>
<td>27%</td>
<td>9</td>
<td>32%</td>
</tr>
</tbody>
</table>
The second section of the survey addressed the instructional technology sessions that the teachers wanted to see repeated during the spring semester. Two respondents (9%) of Windsor High School teachers and four (14%) of Windsor Middle teachers requested that Beginning Powerpoint Level 1 be repeated during the spring semester. Six (27%) of Windsor High teachers and seven (25%) of Windsor Middle School teachers wanted Intermediate Powerpoint repeated. A repeated session of United Streaming Level 1 was requested by four (18%) of Windsor High School teachers and five (18%) of Windsor Middle School teachers. United Streaming Level 2 was requested by seven (32%) of Windsor High School teachers and eight (29%) of Windsor Middle School teachers. Interwrite Schoolpad Level 1 instructional technology training was requested by nine (41%) of Windsor High School respondents and ten (36%) of Windsor Middle School respondents. Eight (36%) of Windsor High School teachers and six (21%) of Windsor Middle School teachers requested a repeat of the second level of Interwrite training. A repeated session of iMovie was requested by nine (41%) of Windsor High School teachers and seven (25%) of Windsor Middle School teachers. A repeated session of Using the Digital Camera in the Classroom was requested by six (27%) of Windsor High School teachers and 16 (57%) of Windsor Middle School teachers. Of the choices on the survey of repeated sessions, zero respondents from Windsor High School chose “None of the Above” and two (7%) of Windsor Middle School chose “None of the Above” when asked which sessions they wanted to see repeated. See Table 3 for a summary of the above information.
TABLE 3

DESIRED AREAS OF ENHANCED INSTRUCTIONAL TECHNOLOGY TRAINING

<table>
<thead>
<tr>
<th>Training Session</th>
<th>Windsor High Requests</th>
<th>% of teachers desiring training (WHS)</th>
<th>Windsor Middle Requests</th>
<th>% of teachers desiring training (WMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Powerpoint</td>
<td>2</td>
<td>9%</td>
<td>4</td>
<td>14%</td>
</tr>
<tr>
<td>Intermediate Powerpoint</td>
<td>6</td>
<td>27%</td>
<td>7</td>
<td>25%</td>
</tr>
<tr>
<td>United Streaming Lev. 1</td>
<td>4</td>
<td>18%</td>
<td>5</td>
<td>18%</td>
</tr>
<tr>
<td>United Streaming Lev. 2</td>
<td>7</td>
<td>32%</td>
<td>8</td>
<td>29%</td>
</tr>
<tr>
<td>Interwrite Schoolpad Lev. 1</td>
<td>9</td>
<td>41%</td>
<td>10</td>
<td>36%</td>
</tr>
<tr>
<td>Interwrite Schoolpad Lev. 2</td>
<td>8</td>
<td>36%</td>
<td>6</td>
<td>21%</td>
</tr>
<tr>
<td>iMovie</td>
<td>9</td>
<td>41%</td>
<td>7</td>
<td>25%</td>
</tr>
<tr>
<td>Digital Camera in the Classroom</td>
<td>6</td>
<td>27%</td>
<td>16</td>
<td>57%</td>
</tr>
<tr>
<td>None of the Above</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>7%</td>
</tr>
</tbody>
</table>

New Areas of Instructional Technology Training

The third section of the survey addressed the new areas of training of interest to the teachers. The participants surveyed were asked to identify their top two choices of instructional technology training that they wanted to see offered. There were several surveys that had more than two choices selected; therefore, all selections were incorporated into the following data. Of the Windsor High School teachers, three (14%) wanted “Integrating Excel into the Curriculum”; seven (32%) wanted “Internet Resources/Freebies”; two (9%) wanted “Apple of My I”; zero wanted “NCS Mentor” training; nine (41%) wanted “iWeb”; three (14%) wanted “Textbook Software” training; zero wanted “Internet Safety”; three (14%) wanted “Creating a Webquest or Cyberhunt”; seven (32%) wanted to learn to use the Jeopardy Game template; six (27%) wanted to learn Pod/Vodcasting; two (9%) wanted Troubleshooting and Network training; two (9%) wanted to learn to use Google Earth; and zero requested training
other than what was listed. Of the Windsor Middle School teachers, 10 (36%) wanted “Integrating Excel into the Curriculum”; 11 (39%) wanted “Internet Resources/Freebies”; six (21%) wanted “Apple of My I”; zero wanted “NCS Mentor” training; nine (32%) wanted “iWeb”; six (14%) wanted “Textbook Software” training; three (11%) wanted “Internet Safety”; 10 (36%) wanted “Creating a Webquest or Cyberhunt”; six (21%) wanted to learn to use the Jeopardy Game template; five (18%) wanted to learn Pod/Vodcasting; three (11%) wanted Troubleshooting and Network training; six (21%) wanted to learn to use Google Earth; and zero requested training other than what was listed. Table 4 represents respondent requests for new areas of instructional technology training sessions that had not been offered previously.

TABLE 4

NEW AREAS OF TECHNOLOGY TRAINING

<table>
<thead>
<tr>
<th>Training Session</th>
<th>Windsor High (respondents)</th>
<th>Windsor Middle (respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integrating Excel Into the Curriculum</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Internet Resources/Freebies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Apple of My “I”</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NCS Mentor (English)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>iWeb</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Textbook Software</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Internet Safety in Schools</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Creating a Webquest or Cyberhunt</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Using the Jeopardy Game Template</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pod/Vodcasting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Troubleshooting/Networking</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Google Earth</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the Windsor High School (WHS) and Windsor Middle School (WMS), the table shows the number of respondents and the percentage of teachers desiring new training: 

- **Integrating Excel Into the Curriculum**: 10 teachers (36% of WMS) desired this training.
- **Internet Resources/Freebies**: 11 teachers (39% of WMS) desired this training.
- **Apple of My I**: 6 teachers (21% of WMS) desired this training.
- **NCS Mentor (English)**: No teachers desired this training.
- **iWeb**: 9 teachers (32% of WMS) desired this training.
- **Textbook Software**: 6 teachers (21% of WMS) desired this training.
- **Internet Safety in Schools**: 3 teachers (11% of WMS) desired this training.
- **Creating a Webquest or Cyberhunt**: 10 teachers (36% of WMS) desired this training.
- **Using the Jeopardy Game Template**: 6 teachers (21% of WMS) desired this training.
- **Pod/Vodcasting**: 5 teachers (18% of WMS) desired this training.
- **Troubleshooting/Networking**: 3 teachers (11% of WMS) desired this training.
- **Google Earth**: 6 teachers (21% of WMS) desired this training.
- **Other**:
  - Other than what was listed.
Overall Feelings about Staff Development

The last section of the survey was ten questions that measured the Quality, Usefulness, and the Perception of the instructional technology training sessions that the teachers attended in the fall of 2006. A Likert scale was used to determine overall feelings with a score of 1 indicating strong disagreement, 2 indicating disagreement, 3 indicating not sure, 4 indicating agreement, and 5 indicating strong agreement.

Questions 1, 3, and 8 measured the feelings about the quality of instructional technology training programs. Question 1 stated: “The training I received was relevant to my content area.” Of the 12 Windsor High School teachers who responded, five (42%) selected that they agreed with this statement and seven (58%) selected that they strongly agreed that the training was relevant to their content area. Two (12%) of Windsor Middle School teachers disagreed that the training was relevant to their content area; eight (47%) agreed that the training was relevant, six (35%) strongly agreed, and one (6%) of the teachers left this question blank. The mean of teacher responses for Windsor High School was 4.58, and for Windsor Middle School was 4.13.

Question 3 asked if teacher expectations from the training sessions were met. Of the Windsor High School teacher responses, six ((50%) agreed and six (50%) strongly agreed that their expectations were met. Of the Windsor Middle School teacher responses, two (12%) were not sure, ten (59%) agreed, four (23%) strongly agreed, and one (6%) left this question blank. The mean of teacher responses for Windsor High School was 4.5 and 4.13 for Windsor Middle School.

Question 8 asked if the teacher received follow-up assistance as needed after the training. Windsor High School teacher responses were two (17%) agreed, eight (66%) strongly agreed, and two (17%) left this question unanswered. Of the Windsor Middle
School teachers, one (6%) disagreed that they received follow-up assistance as needed, two (12%) were not sure, seven (41%) agreed, four (23%) strongly agreed, and three (18%) left this question unanswered. The mean of teacher responses from Windsor High School was 4.8, and the mean for Windsor Middle School was 4.0 for this question.

Represented in Figure 1, a comparison between schools of the average teacher feelings about the quality of the instructional technology-training program received in the fall of 2006. This data was important in order to recognize if certain criteria affected the overall quality of the instructional technology-training program. For example, if the teachers at one school felt that follow-up assistance was unsatisfactory, then the overall quality of the instructional technology-training program would suffer.

The data showed that 58% percent of Windsor High School teachers strongly agreed that the quality of the program was relevant, their expectations were met, and they received follow-up assistance as needed, compared to only 27% of Windsor Middle School teachers who strongly felt this way. Thirty-six percent of Windsor High School teachers agreed on the relevancy, expectations, and follow-up assistance compared to 49% of Windsor Middle School teachers. Six percent of Windsor Middle School teachers disagreed with the three statements, while zero percent of Windsor High School teachers disagreed. Zero percent of Windsor Middle School and Windsor High School teachers strongly disagreed that the training was relevant, or that the training did not meet their expectations, or that they did not receive follow-up assistance as needed. Ten percent of Windsor Middle School teachers and six percent of Windsor High School teachers left these questions blank. See Figure 1.
The overall quality of the program based on the data from the questionnaires received from both the middle school and the high school teachers was good. Overall, 85% of both faculties either strongly agreed or agreed that the overall quality of the instructional technology-training program was good. Fifty-eight percent of the faculty strongly agreed on the overall quality, while only 27% percent strongly agreed at the middle school of the overall quality. A break-down of this data: Thirty-five (42.5%) strongly agreed that the training was relevant, expectations were met, and follow-up assistance was given; 38 (42.5%) agreed; 4 (4%) were not sure; 3 (3%) disagreed; and 7 (8%) left these questions unanswered. The mean overall quality for Windsor High School for Questions 1, 3, and 8 was 4.62 and for Windsor Middle School was 4.09. The mean overall quality for both schools combined was 4.31. See Table 5.
**TABLE 5**

**QUALITY OF INSTRUCTIONAL TECHNOLOGY TRAINING**

<table>
<thead>
<tr>
<th>Likert Scale</th>
<th>SD</th>
<th>D</th>
<th>NS</th>
<th>A</th>
<th>SA</th>
<th>BLANK</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>1. The training I received was relevant to my content area.</td>
<td>WHS</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>12%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>3. My expectations from the training sessions were met.</td>
<td>WHS</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td>8. I received follow-up assistance as needed.</td>
<td>WHS</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>6%</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td>MEAN Quality by School</td>
<td>WHS</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>6%</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>MEAN Overall Quality</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>3%</td>
<td>4</td>
<td>4%</td>
<td>38</td>
</tr>
</tbody>
</table>
Questions 6 and 7 measured teacher feelings of usefulness of the training sessions. Question 6 asked the teachers if the training was utilized in their classes. Of the Windsor High School responses, 5 (43%) strongly agreed, 4 (33%) agreed that they utilized the training, 1 (8%) was not sure, and 2 (17%) disagreed. Of the Windsor Middle School responses, 5 (29%) strongly agreed, 6 (35%) agreed, 2 (12%) disagreed, and 1 (6%) strongly disagreed that they utilized the training in their classes. Two (12%) left the question blank. The mean for Question 6 was 4.0 for Windsor High School responses and 3.8 for Windsor Middle School responses.

Question 7 asked if students utilized the instructional technology based on the training that the teacher received. Of the Windsor High School responses, 5 (42%) strongly agreed with this statement, 1 (8%) agreed, 2 (17%) disagreed, 1 (8%) strongly disagreed, and 3 (25%) were not sure. Of the Windsor Middle School responses, 4 (23%) strongly agreed, 4 (23%) agreed, 2 (12%) disagreed, 1 (6%) strongly disagreed, and 4 (23%) were not sure. The mean for Question 7, was 3.58 for Windsor High School and 3.4 for Windsor Middle School.

Figure 2 represents the average feelings of the usefulness of technology training received. Questions 6 and 7 of the survey represented this information. At Windsor High School, 41.66% of the teachers who responded to this section of the survey strongly agreed that they utilized the training in their classes and/or had their students utilize the technology training; 20.83% agreed; 16.66% were unsure; 16.66% disagreed; and, 4.16% strongly disagreed.

At Windsor Middle School, 26.47% of the teachers who responded to this section of the survey strongly agreed that they utilized the training in their classes and/or had
their students utilize the technology training; 29.41% agreed; 14.7% were unsure; 11.76% disagreed; 5.88% strongly disagreed; and, 11.76% left these questions blank.

See Figure 2.

FIGURE 2
USEFULNESS OF TECHNOLOGY TRAINING

Questions 6 and 7 asked teachers about their overall feelings about the usefulness of the instructional technology-training program. These questions were asked to reveal if teachers actually employed what they learned and if they transferred what they learned to their students. The mean score for both questions 6 and 7 combined for Windsor High School responses was 3.79 and for Windsor Middle School was 3.67. The mean score for the usefulness of instructional technology training for both Windsor High School and Windsor Middle School combined was 3.79. Please refer to Table 6.
<table>
<thead>
<tr>
<th>Likert Scale</th>
<th>SD</th>
<th>D</th>
<th>NS</th>
<th>A</th>
<th>SA</th>
<th>BLANK</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>6. I utilized the training in my classes.</td>
<td>WHS</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>17%</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>1</td>
<td>6%</td>
<td>2</td>
<td>12%</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>7. My students utilized the technology based on the training I received.</td>
<td>WHS</td>
<td>1</td>
<td>8%</td>
<td>2</td>
<td>17%</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>1</td>
<td>6%</td>
<td>2</td>
<td>12%</td>
<td>4</td>
<td>23%</td>
</tr>
<tr>
<td>MEAN Usefulness by School</td>
<td>WHS</td>
<td>1</td>
<td>4%</td>
<td>4</td>
<td>17%</td>
<td>4</td>
<td>16.5%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>2</td>
<td>6%</td>
<td>4</td>
<td>12%</td>
<td>5</td>
<td>14.5%</td>
</tr>
<tr>
<td>MEAN Overall Usefulness</td>
<td>3</td>
<td>5%</td>
<td>8</td>
<td>14.5%</td>
<td>9</td>
<td>15.5%</td>
<td>15</td>
</tr>
</tbody>
</table>
The last questions, 2, 4, 5, 9, and 10, addressed the perception of the instructional technology-training program. Question 2 stated that the amount of time allowed for training was sufficient. Of the Windsor High School responses, five (42%) strongly agreed, 1 (8%) agreed, and 3 (25%) disagreed that the amount of time for training was sufficient. Of the Windsor Middle School responses, 5 (35%) strongly agreed, 7 (41%) agreed, 2 (12%) disagreed, and 2 (12%) were not sure that the time allowed for training was sufficient. One (6%) Windsor Middle School respondent left the question blank. The mean was 2.83 for Windsor High School responses and 3.94 for Windsor Middle School responses.

Question 4 stated that the sessions were offered at a time that was good for the teacher. Of the Windsor High School responses, 5 (42%) strongly agreed, 5 (42%) agreed, and 1 (8%) disagreed that the time was good for them. Of the Windsor Middle School responses, 7 (41%) strongly agreed, 7 (41%) agreed, and 3 (18%) disagreed that the time was good for them. The mean for Windsor High School responses was 4.17 and for Windsor Middle School was 4.06.

Question 5 asked if the day of the week was good for the teachers. Of the Windsor High School responses, 6 (50%) strongly agreed, 4 (33%) agreed, and 1 (8%) disagreed that the day of the week suited them. One (8%) was not sure. Of the Windsor Middle School responses, 6 (35%) strongly agreed, 7 (41%) agreed, 2 (12%) disagreed, and 2 (12%) were not sure that the day of the week was good for them. The mean for Windsor High School responses was 4.25 and for Windsor Middle School was 4.

Question 9 asked if the teacher was pleased with two session topics per month. Of the Windsor High School responses, 5 (42%) strongly agreed, 5 (42%) agreed, 1 (8%) strongly disagreed, and 1 (8%) was not sure. Of the Windsor Middle School
responses, 4 (24%) strongly agreed, 10 (59%) agreed, and 2 (12%) were not sure. One respondent (6%) left this question blank. The mean of Windsor High School responses was 3.77 and the mean of Windsor Middle School responses was 4.13.

Question 10 asked if the teacher was pleased with having three different times to choose to attend an instructional technology training session. Of the Windsor High School responses, 7 (58%) strongly agreed and 5 (42%) agreed. Of the Windsor Middle School responses, 6 (35%) strongly agreed, 7 (41%) agreed, 1 (6%) strongly disagreed, and 2 (12%) were not sure if they were pleased with having three times to choose from to attend a training session. The mean of Windsor High School responses was 4.58 and of Windsor Middle School responses, 4.06 for Question 10.

Figure 3 represents the overall perception of the technology-training program. Survey Questions 2, 4, 5, 9, and 10 extract perception data. Question 2 addresses the amount of time for each training session, Question 4 addresses the time of day for instructional technology training, Question 5 addresses day of week that training was offered, Question 9 asks if variety of topics per month are sufficient, and Question 10 asks if the teacher is pleased with the number of times each session was repeated in each month. Overall at Windsor High School, 46.66% strongly agreed and 33% agreed that the items listed were satisfactory; 10% were unsure, 8.33% disagreed; and, 1.55% strongly disagreed with some of the choices. At Windsor Middle School, 32.94% strongly agreed and 44.70% agreed that the time of day, day of week, variety of topics, and number of repeated sessions were satisfactory; 9.41% were unsure; 8.23% disagreed; 1.17% strongly disagreed; and, 3.52% left these questions blank.

See Figure 3.
FIGURE 3

PERCEPTION OF TECHNOLOGY TRAINING

The overall perception of the instructional technology-training program was measured in five questions. These questions addressed the amount of time allowed for training, the time of day for training, the day of the week training was offered, the number of session topics offered in the month, and the number times each topic was offered in the instructional technology-training program. The mean perception of instructional technology training by school for the combination of Questions 2, 4, 5, 9, and 10 was 4.15 for Windsor High School and 4.04 for Windsor Middle School. Overall, 56 (40.4%) of the Windsor Middle School and Windsor High School teachers strongly agreed that these statements were true. Fifty-eight (39%) agreed that these statements were true. Sixteen (10.9%) were not sure or left these questions blank. Twelve (8.3%) disagreed with the perception questions, and 2 (1.4%) strongly disagreed with some of the questions. The combined mean for Windsor High School and Windsor Middle School for the overall perception of instructional technology training was 4.08. See Table 7.
TABLE 7

PERCEPTION OF INSTRUCTIONAL TECHNOLOGY TRAINING

<table>
<thead>
<tr>
<th>Question</th>
<th>SD</th>
<th>D</th>
<th>NS</th>
<th>A</th>
<th>SA</th>
<th>BLANK</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.  The amount of time allowed for training was sufficient.</td>
<td>WHS</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>25%</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>12%</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.  The sessions were offered at a time that was good for me.</td>
<td>WHS</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>12%</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>18%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.  The sessions were offered on a day of the week that was good for me.</td>
<td>WHS</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>12%</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>18%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.  I am pleased with two session topics for month.</td>
<td>WHS</td>
<td>1</td>
<td>8%</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>WMS</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I am pleased with the option of having three different times that I</td>
<td>WHS</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>may choose to attend a session.</td>
<td>WMS</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>12%</td>
</tr>
</tbody>
</table>

MEAN Perception by School

| WHS | 1.6% | 5  | 8.2% | 6  | 9.8% | 20 | 33.4% | 28 | 46.8% | 0  | 0%  | 4.15 |
| WMS | 1.2% | 7  | 8.4% | 8  | 9.6% | 38 | 44.6% | 28 | 34%   | 2  | 2.4% | 4.04 |

MEAN Overall Perception

| 2   | 1.4% | 12 | 8.3% | 14 | 9.7% | 58 | 39%   | 56 | 40.4% | 2  | 1.2% | 4.08 |
Summary

In this chapter, the results of this research study were presented. A total of 70 surveys were distributed with a return of 22 from Windsor High and 28 from Windsor Middle School teachers. The percentage of respondents was 71. The findings revealed the Instructional Technology Skills and Qualifications of Teachers, Desired Areas of Enhanced Instructional Technology Training, New Areas of Instructional Technology Training, and Overall Feelings About Instructional Technology Staff Development.

There were several tables and figures used in this chapter to demonstrate the findings of the survey. Table 1 illustrated the distribution and return rate of the survey. Table 2 displayed the Instructional Technology Skills and Qualifications that the teachers possessed at the time of completing the survey. Table 3 explained the “ Desired Areas of Enhanced Instructional Technology Training” that teachers’ wished to have. Table 4 illustrated “New” areas of Instructional Technology Training that the staff wished to have. Table 5, 6, and 7 displayed the quality, usefulness, and perception of the Instructional Technology Training program, consecutively. Figures 1 through 3 compared Windsor Middle School and Windsor High School teacher feelings about the quality, usefulness, and perception of the program. Chapter V will summarize the research study, draw conclusions, and make recommendations based on the findings of the research study.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter is to summarize this study. Conclusions will be drawn based on the findings of the study. Recommendations will be made to improve the quality of instructional technology training based on the conclusions drawn from the research.

Summary

The problem of this study was to determine whether instructional technology training in Isle of Wight County met the needs of the professional staff. To solve the problem of this study, research goals were created. The goals of this research were to:

1. Determine current instructional technology skills and qualifications of teachers.
2. Determine areas that teachers want their instructional technology skills enhanced.
3. Determine new areas of instructional technology skills that teachers want.
4. Determine teacher feelings about instructional technology training conducted in Isle of Wight County Schools.

There were four limitations in this research project: the study was conducted on the faculties of Windsor High School and Windsor Middle School teachers, the research was completed after the first initial technology integration program in the fall of 2006, all teachers did not participate in the staff development program, and the study was limited to instructional technology professional development training. The study was significant in order to determine the quality, usefulness, and overall perception of the technology integration-training program. Teachers of Windsor Middle School and Windsor High School were the population for this study. The instrument was a survey and the design of the instrument was a Likert scale.
Information was gathered on the Instructional Technology Skills and Qualifications of Teachers, the Desired Areas of Enhanced Instructional Technology Training, the New Areas of Instructional Technology Training, and the Overall Feelings about the Quality, Usefulness, and Perception of Instructional Technology Training.

Conclusions

Data collected through this study will be used to answer the research goals. Goal 1 determined the Instructional Technology Skills and Qualifications of the teachers. This information is important to know because when assessing a program and making recommendations for a new program, it is important not to offer instructional technology training that has already been satisfied. The survey revealed an average of 27% of Windsor Middle School and Windsor High School teachers were trained in Beginning and Intermediate Powerpoint. This was more than any other instructional technology. United Streaming Level 1 and iMovie were the second two most participated in instructional technology training sessions with 15 teachers participating in United Streaming Level 1 training, and 13 teachers participating in iMovie training. Teachers had the least amount of training in Interwrite Level 1 in which there were no participants at both schools.

Goal 2 of the research study was to determine the Desired Areas of Enhanced Instructional Technology Training. The data showed that the top two most requested instructional technology training sessions were Using the Digital Camera in the Classroom at an average of 42% and Interwrite Schoolpad Level 1 at an average of 38.5%. The least requested instructional technology repeat session was Beginning Powerpoint with six total requests and United Streaming Level 1 with nine requests.
Goal 3 of the research study was to determine New Areas of Instructional Technology Skills That Teachers Want. There were several new instructional technology training sessions listed in this section of the survey. The most chosen were “Internet Resources and Freebies” and “iWeb” instructional technology training.

Goal 4 of the research study was to determine teacher feelings about instructional technology training in which they participated. This part of the survey was divided into three sections: Quality, Usefulness, and Perception. The overall feelings of the usefulness of the instructional technology training was in the strongly agree and agree categories at 58.75%. Seventy-four percent of the teachers surveyed strongly agreed or agreed that the quality of the program was relevant, it met their expectations, and that they received follow-up assistance as needed. For the perception of the instructional technology training, participants highly rated the programs with 79.4% choosing strongly agree or agree choices.

**Recommendations**

Based on the findings of the research study, the researcher recommends:

1. An appropriate schedule of instructional technology training should be created based on the wants of the population.

2. Important to the success of the program is advertisement, clarity of the descriptions of the instructional technology training sessions offered, and consistent follow-up and feedback.

For future studies, the researcher acknowledges and recommends:

1. Participants in a small group setting better received the survey rather than when distributed in teacher mailboxes. This allowed the researcher to
explain the importance of the data collected; therefore, if at all possible, the
survey data should be collected in this manner rather than distributed in
teacher mailboxes.

2. The survey data would have been better interpreted in Section 4 if the
questions and answers would have been worded so that the answers were
Excellent, Good, Fair, Poor, and Very Poor. The Usefulness, Quality, and
Perception of the instructional technology training program would be better
validated with different wording as well.
REFERENCES


Isle of Wight County Schools
Professional Development Evaluation Survey

Assessing the Present
Planning for the Future

Name: ___________________________ School: ________________
Grade/Subject: ___________________ Date: ___________

Please take a moment to reflect on the professional development program offered to you during the first semester of this school year and choose your program for the spring.

Please check the boxes below of the training sessions that you attended.

☐ Beginning Powerpoint
☐ Intermediate Powerpoint
☐ United Streaming Level 1
☐ United Streaming Level 2
☐ Interwrite Schoolpad Level 1
☐ Interwrite Schoolpad Level 2
☐ iMovie
☐ Digital Camera in the Classroom
☐ None of the Above

Please check the boxes of the training sessions that you would like to see offered AGAIN in the spring.

☐ Beginning Powerpoint
☐ Intermediate Powerpoint
☐ United Streaming Level 1
☐ United Streaming Level 2
☐ Interwrite Schoolpad Level 1
☐ Interwrite Schoolpad Level 2
☐ iMovie
☐ Digital Camera in the Classroom
☐ None of the Above

Of the following courses, please indicate your TOP TWO choices of courses you would like to see offered.

☐ Integrating Microsoft Excel Into the Curriculum (Level 1)
☐ Internet Resources/Freebies
☐ Apple of My “I” (Overview of the Software on the Laptop Carts)
☐ NCS Mentor (English)
☐ iWeb (Creating a teacher webpage)
☐ Textbook Software Training (Utilizing the software purchased with your textbook)
☐ Internet Safety In School
☐ Creating a Webquest or Cyberhunts
☐ Using the Jeopardy Game Template
☐ Pod/Vodcasting
☐ Troubleshooting/Networking (User Folder/Shared Files, etc)
☐ Google Earth for ALL Subjects
☐ Other

Indicate below your feelings about the technology integration professional development that you received during the fall.

☐ I did not receive any training during the fall semester.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Not sure</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

1. The training I received was relevant to my content area.

2. The amount of time allowed for training was sufficient.

3. My expectations from the training sessions were met.

4. The sessions were offered at a time that was good for me.

5. The sessions were offered on a day of the week that was good for me.

6. I utilized the training in my classes.

7. My students utilized technology based on the training I received.

8. I received follow-up assistance as needed.

9. I am pleased with two session topics per month.

10. I am pleased with the option of having three different times that I may choose to attend a session.
Using the space below, please make suggestions or comments that would help improve the quality of your staff development program. If you disagree with any of the above statements, please make recommendations for improvement.
TO: WHS Faculty  
FROM: Tina M. Evans  
Computer Resource Specialist  
DATE: January 8, 2007  
SUBJECT: TECHNOLOGY INTEGRATION STAFF DEVELOPMENT SURVEY  

Attached is a survey that I developed in order to get feedback from you about the technology training that you received during the first semester of this school year.

Even if you did not participate in any training in the fall, I would still like to hear from you! Please read each section carefully and complete it as honestly as possible. I will be using the information received in order to develop a training schedule for the spring semester!

I’ve enjoyed working with you all this school year, thus far, and I hope that I am making a difference in helping you to incorporate technology into your classes!

Thanks for your feedback!

*Please return all surveys by Tuesday, January 16, 2007!  
*The survey is front and back! Don’t forget the backside!