INFLUENCE OF TRAINING OF MIDDLE SCHOOL TEACHER’S AWARENESS OF TECHNOLOGY IMPLEMENTATION OF A ONE TO ONE LAPTOP INITIATIVE

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Submitted in Fulfillment of Graduation Requirements for

61-723 WRITING & INTERPRETING EDUCATIONAL LITERATURE AND STATISTICS
AND 61-724 FIELD STUDY

June 25, 2012
ABSTRACT

The purpose of this study was to investigate teacher’s awareness of professional development and training of One-to-One laptop initiative implementation. The study examined the facilitation of technology training of teachers and their perception of the quality of professional development. The study examined thirty-three middle school teachers and their personal awareness of technology training and implementation. The teachers taught Communication Arts, Math, Science, Social Studies and Elective courses at the seventh and eighth grade level. The middle school had completed a three-year cycle of technology training and was surveyed by a digital survey. The study found that this schools professional development training was successful and staff felt they were adequately trained prepared for technology integration of One to One laptop initiative in their schools. Data showed that teacher’s awareness of professional development and training of One – to – One-laptop initiatives was sufficient. This study models a successful plan for facilitation of professional development and training on the integration of One-to –One-laptop initiatives.
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2. RQ2 – What are the responses of teacher’s perception of awareness by grade level (7th & 8th grade) of each survey item?
3. RQ3: What are the responses of teacher’s perception of awareness by years of teaching experience of each survey item?
4. RQ4 – Is there a difference of teacher’s perception of awareness between grade level & year of teaching experience by each survey item?
5. RQ5 – What is the reliability of the instrument?

Null Hypotheses

There is no significant difference between schools for teacher perception of awareness by item.

Anticipated Benefits of the Study

The study will benefit by surveying teachers awareness of technology and guide each school's Professional development plans.
Technology

Limitations and Delimitations

Limitations: Strength of the research instrument, technology terminology, small return
Delimitations: one middle school, time frame of when survey is given

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CHAPTER ONE: INTRODUCTION TO THE STUDY

Background

The Internet has changed our entire world. Everyone can discover information with a simple click of a mouse. Technology is taking over every factor of our life and innovative jobs are created daily. School districts are incorporating technology into the classroom to help prepare students for their learning, thinking and analysis that today’s world demands. Laptops also increase the level of student engagement in classrooms. The students of today are sponges when it comes to technology and multimedia. By incorporating technology into classroom, students will work better independently, stay on task and enjoy learning. (Warschauer, 2006)

Schools across the nation are implementing technology programs in their professional development. The range of training varies across school districts. Some schools are introducing One to One Laptop Initiatives to introduce technology into their schools. Some schools are merely handing the students a laptop and learning as they go. (Barone, D. & Wright, T. 2008)

School District’s that are adopting One to One Laptop Initiatives are allowing educators and students to integrate technology into their teaching and learning. School District’s must start this initiative with technology training and innovative curriculum. (Weston, M. & Bain, A. 2010)

Laptops are a tool to be used along with problem-based learning. Teachers feel unprepared when it comes to integrating technology into their classrooms. Educators struggle with the lack of technology, planning time, technical knowledge and support; which leads to hesitation of technology centered lesson plans. Educators are not receiving the technology training that is necessary to implement technology initiatives. (Barone, D. & Wright, T. 2008)
Technology

Conceptual Underpinnings for the Study

Schools are taking on multiple initiatives to meet goals within their school improvement plans. Education is a constant cycle of learning. Teachers must continue to learn as they teach. Professional development is needed in schools to help adults and organizational growth happen simultaneously. The basis of professional learning is communities of collaborative learning. These communities are connected by shared values and visions while sustained by high levels of energy and forward movement coming from the work of multiple, self organized, collaborative learning groups. Professional Learning communities have the ability to transform the teaching and learning process. Teachers, as members of a learning community can experience learning in the same ways that children should experience learning. These learning communities can help schools meet their school improvement goals. Teachers can stay focused and learn to integrate new technology initiatives into their classrooms. This training is imperative to schools implementing One to One Laptop initiatives. (Wald, P. & Castelbury, M. 2000)

Practice Under Study

This field study will focus on technology training offered to teachers. Research shows that professional development that focuses on technology is often short term and lacks adequate follow up. For most schools time is not always available. The field study studied one middle school that had job embedded training. The middle school developed a three-year professional development plan. During the first year, teachers applied and were selected for the Breaking Barriers technology co-hort. Teachers that were selected were given a MacBook Pro laptop and met with an Instructional Technology coach to learn how to integrate technology into the
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classrooms. During the second year all teachers in the district were given a MacBook Pro laptop. The middle school continued job embedded technology training with all staff. They continued to learn how to integrate technology into the classroom. The focus was to incorporate the laptops as a learning tool within constructivist best practices. Teachers were introduced to web 2.0 tools such as, Edmodo, Ning, Cacoo, Skype and My Access.

Statement of the Problem

Educators need more help and time to learn and practice technology. It will study one middle school’s implementation of One to One Laptop initiatives. Staff will be surveyed on their perception of awareness of technology before and during the initiative. The schools that developed professional development that focused on integrating technology into their classrooms, proved to help educator’s awareness of technology. They were given years of training about the laptops, Web 2.0 programs and how to integrate technology with their best practice. These classrooms were successful with integration due to the training that was provided before the One to One Laptop Initiatives.

Purpose of Study

The purpose of the study is to discuss teacher awareness of technology and One to One Laptop initiatives. The study will survey teacher’s awareness of technology and training provided to the schools studied. The study will also survey importance of implementation of technology into our schools and preparing students for a society of new job opportunities. (Jones, C. 2001)
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Research Questions

1. RQ1 – What are the overall response of teacher’s perception of awareness of each survey item?
2. RQ2 – What are the responses of teacher’s perception of awareness by grade level ($7^{th}$ & $8^{th}$ grade) of each survey item?
3. RQ3: What are the responses of teacher’s perception of awareness by years of teaching experience of each survey item?
4. RQ4 – Is there a difference of teacher’s perception of awareness between grade level & years of teaching experience by each survey item?
5. RQ5 – What is the reliability of the instrument?
CHAPTER TWO: REVIEW OF LITERATURE

In 1985, Bork stated,

We stand at the beginning of a major revolution in the way people learn. We are moving rapidly toward a future where computers will comprise the dominant delivery system in education for almost all age levels and in most subject areas. Not since the invention of the printing press has a technological device borne such implications for the learning process. (Lowther, D. Ross, S. & Morrison, G. 2003, p. 23)

The ratio of students to computer has been declining every year. In 1992 the ratio was 19:1 and 2000 4:1. (Lowther, D., Ross, S. & Morrison, G. 2003) Today school districts are implementing a ratio of one computer for every student.

School Districts across the nation are introducing multiple initiatives simultaneously. The One to One Laptops initiative is ground breaking and innovative initiative that is being adopted by schools. Educators believe that the increased use of computers will lead to improved teaching and learning, greater efficiency and the development of important skills in students. Today’s One to One Laptop initiative puts one laptop in the hands of every student. (Bebell, D., 2005)

This initiative has many successes and pitfalls that schools may run into. By implementing technology into classrooms, students are prepared for 21st century world. One universal finding among schools that are implementing One to One Laptop initiatives is that the use of technology increases. This initiative also increases student engagement, decreased disciplinary problems and increases the use of computers for writing. (Bebell, D., 2005)

Schools with 21st century technology are giving students access to a vast amount of resources and data. Students learn how to analyze, critique and create this information. This
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education assist students with skills that will be needed in the real world to complete 21\textsuperscript{st} century jobs.

21\textsuperscript{st} Century Students

Today’s students are multi-media sponges. They need to work with multi-media daily to help increase engagement. This will allow students to spend more time on task and work independently to produce multimodal content.

Students who utilize laptops write much more than classes without laptops. The laptop provides them with several tools that help students with the writing process. Laptops provide software that will help students to make their writing piece look professional. They have revision software that helps them to edit and perfect their writing piece for publishing. They receive more feedback from automated essay scoring programs before they submit the final draft to the teacher. (Warschauer, 2006)

Laptops

Laptops are cognitive tools that are holistically integrated into the teaching and learning process. This tool helps members to teach, learn, create, communicate and deliver feedback. These skills must be integrated and are inseparable. (Warschauer, 2006)

58.7\% laptop using teachers move away from the keeper of knowledge and act more as a coach or facilitator which helps to increase an inquiry method of learning, cooperative learning and individualized instruction. (Garthwait, A & Weller, H, 2005)

School districts that have already adopted One to One laptop initiatives stated that students were more eager to learn by engaging in problem-based activities and working collaboratively. Students are better writers and that the laptops have enhanced the students research skills. (Lowther, D, Ross, S & Morrison, G, 2003) Apple reports that more than 600
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School districts have purchased iPads for their students. Burlington High School in Boston, Massachusetts spent $500,000 of their existing budget. They were able to use this money by getting rid of computer labs, language labs and decided that they will no longer buy new textbooks. The principal felt there was no need to purchase new textbooks or electronic versions because everything can be found on the web for free. (Here & Now’s Robin Young: http://hereandnow.wbur.org/2012/03/23/schools-textbooks-ipad)

Standardized Test

Unfortunately technology cannot be noted as causing good or bad effects on standardized test scores. Most standardized test is still a paper and pencil test. The integration of technology isn’t halting students from increasing their test scores. But the practice is different from the classroom setting to the test. The use of multimedia and revising software doesn’t show up in the test.

Technology Integration

Integration of technology is still in its early stages. Technology is revolutionizing teaching and learning by utilizing laptops as a tool that is used during problem based learning. These innovative teaching methods are helping to increase standardized testing scores. Teachers who utilize technology have found that they can individualize learning to fit the needs of a student by using a laptop. (Weston, M & Bain, A. 2010) One to One Laptop initiatives help students to use their laptops for a variety of purposes and studies. This initiative improved students writing skills and enhanced student technology literacy. It prepares students for 21st century citizenship.
In order for One to One Laptop Initiatives to be sustained, it is important that school districts are aware of teacher’s perceptions and awareness of technology. (Donovan, L., Hartley, K & Strudler, N, 2007)

Professional Development

Schools that are integrating technology into their classrooms must make their initiative an education program first and a technology program second. Schools must remember that the laptop is a tool to be utilized within the best practice. Schools must foster teacher collaboration where teachers can regularly to plan, share lessons and discuss how to integrate technology in their classrooms. They must take their time introducing the initiative by including adequate professional development and pilot program. (Warschauer, 2006)

Troubleshooting technology challenges can also add to the pitfalls of integrating technology. School Districts must provide professional development about aligning technology to curriculum and utilizing technology in the classroom before they take on the initiatives. Teachers must be trained to use the laptop as a tool, learn new to handle a new set up discipline issues that arise with the use of laptops and be able to be flexible and troubleshoot when technology fails. (Lowther, D., Ross, S., & Morrison, G., 2003)

If a professional development and pilot program is not implemented a chaotic diffusion process can happen. Diffusion involves a progression of how the teachers first hear about the initiative, to forming an opinion, to deciding to accept or not accept, to implementation of the initiative. Professional development would help this diffusion progression to be a positive experience for teachers.

There are many factors that can affect technology integration by teachers, the level of professional development, working technology, openness to change, willingness to invest time
and the belief system about the learners in the school. Integration of technology is at its best in a classroom of a teacher who has a favorable attitude about technology. They are able to see potential for effective instructional use of the laptops. Schools must purposefully plan & align curriculum when integrating One to One laptop Initiatives. (Garthwait, A. & Weller, H. 2005)

When implementing new initiatives teachers and principals must adopt new behaviors. Teachers must be fully committed to for a successful implementation. Training must address the teacher’s role and skills that he or she will require in the implementation. Training must provide opportunities to practice the skill in the classroom. Follow up support and coaching from administration is imperative to the teacher successful integration of technology in their classroom. (Donovan, L., Hartley, K. & Strudler, N. 2007)

All studies show that school’s that take on innovative initiatives need to plan ongoing professional development to support the adult learning and organizational growth of their school. Schools should follow recommendations that help build their professional development to ensure for successful training and implementation of One to One Laptop Initiatives.

Adult Learning Theory

Adults will commit to learning when the objectives are realistic and relevant to the adult learner’s personal and professional needs. Adults will resist learning activities that they believe are an attack on their competence. So professional development must be developed to enable adult learners to feel as if they are in control of their own learning and must be structured to provide support from peers. Professional development must give participants control over what, who, how, why, when and where of their learning.

They need to see that the professional development is relevant to their day-to-day activities. They need direct, concrete experiences in which they apply the learning in real work.
Adults need to receive continuous feedback on how they are doing. Opportunities must be built in that allow the learner to practice the learning and receive structured, helpful feedback. Adults need to work in small groups during the learning to move them beyond understanding to application, analysis, synthesis, and evaluation. Small-group activities provide an opportunity to share, reflect, and generalize their learning experiences. Professional development must be individualized because adult learners come to learning with a wide range of previous experiences, knowledge, self-direction, interests, and competencies. Coaches must facilitate support that help adult’s transfer learning into daily practice until it is sustained. (Speck, 1996)

When planning for professional development, principals plan like a teacher would plan for their classroom. They make decision about what will be learned and what method will be used to learn those objectives. These methods are based off of pedagogy, the art and science of teaching children. Andragogy is the art and science of teaching adults or helping adults learn. It has it’s own philosophy on facilitating learning for adults. Andragogy fits into the process of professional development used by schools and administrators who take on the role of an adult educator and help develop programs that will educate staff members. There are several factors that principals must evaluate when educating adults. Adults’ self-concept, experience, readiness to learn and orientation to learning are areas that are of concern in andragogy.

Adults stop viewing themselves as full time learners; they begin to see themselves as producers or doers. Adults feel that it is there choice to learn. Principals must take direct professional development in a way that adults make the decision that they choose to learn and are not being told to learn. When adults feel that learning is by their own choice. They experience an increase in motivation to learn and strong desire to continue to learn. Taking the pedagogy approach will feel condescending to teachers. Principals should also recognize teachers
experience when planning professional development. Adults experience must be associated with
value or they can feel rejected as a person. Professional development must provide adults an
opportunity to link experience to learning objective. New experiences become more useful when
connected with past experiences.

Readiness to learn is another characteristic of andragogy. For the most part children’s
experience with learning is the same material, the same method and at the same time. Regardless
if they’re developmental readiness is the same. Adult readiness is also different but principals
need to take their developmental differences into account with planning and facilitating
professional development. Teachers should be grouped according to their learning needs giving
them an opportunity to share their common needs.

Orientation of learning in adults also differs from children. Children view learning as a
need of learning knowledge and skills that might be useful later in life. Adult learning is a
process of improvement for challenges they face today. Principal must organize professional
development around specific objectives that address the problems areas of today’s educators.
School principals must create opportunities for learning by providing the staff with resources that
will enable the staff to feel confident about taking responsibility to learn new initiatives and
integrate them into their classrooms. (Terehoff, I., 2002)

99% of teachers report that they have computer and Internet access in their buildings. But
not all teachers feel comfortable with integrating technology with their best practice. Only a third
of those teachers feel prepared to use computers and the Internet in classroom instruction.

Another issue that we have in schools is the varying level of teaching experience, also
leads to varying levels of comfort with utilizing technology. Teachers with the least amount of
teaching experience are more comfortable with integrating technology into classrooms. If
teachers are to make adjustments in their teaching methods to integrate technology, they will need patience and support. The principal is an important factor in the effort to implement 1:1 Laptop initiatives, therefore, technology training is a must both the administration and teachers. (Dawson, C. & Rakes, G., 2003)

Teachers cited that independent learning and professional development prepared them for technology. But professional development and follow up training is not offered frequently on the topic of technology. Teacher’s need built in time to learn new software, develop lessons that incorporate new technology and they need consistent support to help them achieve those goals. Those who are not comfortable with technology need one on one help. (Jones, C., 2001)

Professional Development must match the needs of teachers. The One to One laptop adoption must be a gradual process where teachers gradually change their laptops based on their comfort levels with the technology.
CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

Educators need more help and time to learn and practice technology. I will study one middle school’s implementation of One to One Laptop initiatives. Staff will be surveyed on their perception of awareness of technology before and during the initiative. The schools that developed professional development that focused on integrating technology into their classrooms, proved to help educator’s awareness of technology. They were given three years of training with the laptops, Web 2.0 programs and how to integrate technology with their best practice. These classrooms were successful with integration due to the training that was provided before the One to One Laptop Initiatives.

Purpose of Study

The purpose of the study is to discuss teacher awareness of technology and One to One laptop initiatives. The study will survey teacher’s awareness of technology and training provided to the school studied. The study will also survey importance of implementation of technology into our school and preparing students for a society of new job opportunities. This study was conducted to determine if grade level and content area has an impact on professional development and awareness of One to One laptop Initiative. (Jones, 2001.)

Field Study Methods

The following accepted research methods were used.

Research design. This was a one shot non-experimental survey conducted to determine if there is an impact on perceptions of professional development on One to One Laptop Initiative based off grade level and content areas. There will be a survey administered in Spring 2012 to the professional staff. Permission has been obtained from the school district and school principal.
The Alpha level used to challenge the null hypothesis will be 0.5. Weaknesses in the study include: the small size of the study group, only one school studied and instrument that was adapted and used because it is currently unknown but will be determined.

Variables used in the study. The independent variables in this study are the grade levels (seventh and eighth grade) and content area (Communication Arts, Math, Science, Social Studies & elective classes).

The dependent variable in this study is the perceived awareness of professional development One to One Laptop Initiative. There will be nine-survey item with a response pattern of 1 as being agree or 2 being disagree.

Research questions.

1. RQ1 – What are the overall response of teacher’s perception of awareness of each survey item?

2. RQ2 – What are the responses of teacher’s perception of awareness by grade level (7th & 8th grade) of each survey item?

3. RQ3: What are the responses of teacher’s perception of awareness by years of teaching experience of each survey item?

4. RQ4 – Is there a difference of teacher’s perception of awareness between grade level & years of teaching experience by each survey item?

5. RQ5 – What is the reliability of the instrument?
Technology

Null Hypothesis

Ho1 –There are no significant differences in each survey item response when broke down by grade level and years of experience.

Study Group

The study group consisted of 33 seventh and eighth grade teachers. The majority of teachers were tenured. The middle school is located in Northwest Missouri. The school has a population of 570 students with a free and reduced lunch percentage of 39.3. and has been participating in technology professional development since 2009.

Data Collection and Instrumentation Utilized

Data were collected by a survey administered to the staff digitally. The staff was emailed a link to a survey created on www.surveymonkey.com the survey was adapted from a study completed by Hartley and Strudler in 2007. The Donovan, Hartley-Strudler study used the Concern –Based adopting model of change. The purpose of the study was to determine the teacher concerns during the introduction of a one-to-one computing access initiative in the middle school setting. They surveyed teachers on topics such as, awareness, informational, personal, management, consequence, collaboration and refocusing. The results showed that teachers fall into two categories. Teachers were concerned about how the laptop initiative would affect them personally and concerns about how they can best use the laptops to meet student’s need. The purpose of my study was to determine middle school teacher’s awareness of professional development and integration of One to One laptop initiatives. The survey questions were selected to determine teacher’s awareness and perception of One to One Laptop Initiative.
The survey asks teachers to rate their experience as a 1 meaning they agree with the comment and 2 meaning they disagree with the comment. The survey will also study the difference of awareness and perception between grade level and years of teaching experience. A copy of the survey will be added in the appendices.

Data Analysis Strategies

After data are gathered, ASP Software was used to conduct a Chi Square Analysis. (Blackford, 1999). The computer will report a percentage for each answer of one meaning agree and two meaning disagree for the overall response of teacher’s perception of awareness of each survey item, by grade level and years of experience. Assessed in Spring 2012.

Summary

This study will be used to determine if there is significance between the awareness and perception of One to One Laptop Initiative between grade level and years of teaching experience by survey middle school teachers in the spring of 2012. After data is gathered, ASP Software will be used to conduct a Chi Square analysis. (Blackford, 1999).
CHAPTER FOUR: PRESENTATION AND ANALYSIS OF DATA

Item #1: I would like to know what resources are available for the One to One laptop initiative.

Narrative: As shown in Table one, more than 63 percent (63.64%) agreed with the need to know more resource available for the One to One laptop initiative. This finding suggests that two-thirds of teachers feel unprepared for One to One laptop initiative training.

Table 1

*Percent Type of Resources*

Agree: 63.64%

Disagree: 36.36%

<table>
<thead>
<tr>
<th>Item 1</th>
<th>Actual</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>63.64</td>
<td>50</td>
</tr>
<tr>
<td>Disagree</td>
<td>36.36</td>
<td>50</td>
</tr>
</tbody>
</table>

chi square 0.006371961

With the alpha level being set at 0.05, the chi square analysis suggests there is a significant difference among the staff awareness of resources available to them when integrated One to One laptop initiatives. This finding suggests that the administrator should include more training on resources in professional development. Staff may be aware of One to One laptop initiative but need more training in resources that are used with laptops.
Item # 2: I would like to know how my teaching or administration is supposed to change with the One to One laptop initiative.

Narrative: As shown in Table 2, more than 65 percent (65.6%) agreed that they would like to know how their teaching/administration is supposed to change with the One to One laptop initiative. This finding suggests that 34 percent (34.4%) believe that they have enough training to understand how they will integrate laptops into their professional life.

Table 2

Percent How does teaching/administration change?

Agree: 65.6%
Disagree: 34.4%

<table>
<thead>
<tr>
<th>Item 2</th>
<th>Actual</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>65.6</td>
<td>50</td>
</tr>
<tr>
<td>Disagree</td>
<td>34.4</td>
<td>50</td>
</tr>
</tbody>
</table>

With the alpha level being set at 0.05, the chi square analysis suggest there is a significant difference among the staff’s awareness of how their profession will change. This data suggest that staff wants more training on how the One to One laptop initiative will or can change their professional career.
Item #3: I would like to revise the One to One laptop initiative instructional approach.

Narrative: As shown in Table 3, more than 72 percent (72%) agreed that they would revise the One to One laptop initiative instructional approach. This finding suggests that only one-fourth of teachers feel the current method of One to One laptop initiative instructional approach is appropriate and successful.

Table 3

*Percent revise of 1:1 laptop instructional approach*

Agree: 27.3%

Disagree: 72.7%

With the alpha level being set at 0.05, the chi square analysis suggest there is a significant difference among the staff’s evaluation of the current instructional approach. The administrator needs to revise the professional development provided for staff and incorporate new training to help staff integrate One to One laptop initiatives.
Item # 4: I am concerned about my time spent working with non-academic problems related to the One to One laptop initiative.

Narrative: As shown in Table 4, more than 57 percent (57.6%) of teachers disagree that they are not concerned about non-academic problems related to the One to One laptop initiative. This finding suggest that the staff is divided about being concerned about non-academic problems related to One to One laptop initiative.

Table 4

Percent of Non-Academic Problems

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>42.4%</td>
<td>57.6%</td>
</tr>
</tbody>
</table>

With the alpha level being set at 0.05, the chi square analysis suggest there is not a significant difference among the staff’s concerns for non-academic problems. As administrator you can see that half of the staff feels comfortable with integrated One to One laptop initiatives and feels that integration will not cause non-academic concerns. An administrator should train
teachers and create a protocol of procedures teachers can follow when issues arise in their classroom to help deal with these issues individually. This staff doesn’t need a lot of training on this issue but maybe set up procedures.

Item # 5 I would like to have more information on time and energy commitments required by the One to One laptop initiatives.

Narrative: As shown in Table 5, more than 57 percent (57.6%) of teachers disagree that they need more information on time and energy commitments required by One to One laptop initiatives. These findings suggest that over half of the teachers are not concerned with extra time and commitments caused by the One to One laptop initiative.

Table 5

Percent of Time Commitments

Agree: 42.4%

Disagree: 57.6%

<table>
<thead>
<tr>
<th>Item 5</th>
<th>Actual</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>42.4</td>
<td>50</td>
</tr>
<tr>
<td>Disagree</td>
<td>57.6</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

chi square | 0.128510976

With the alpha level being set at 0.05, the chi square analysis suggest there is not a significant difference among the staff’s concerns for time commitment. The school studied had
job embedded collaboration time where they were trained as a department or grade level team. All training on One to One laptop initiative integration was received during the workday.

Item #6, I would like to know what other faculty are doing with the One to One laptop initiative. Narrative: As shown in Table 6, more than 87 percent (87.9%) of teachers agree they would like to know how other faculty members are utilizing technology. This finding suggests that less than one fourth of the staff is not interested in collaborating with other faculty members.

Table 6

Percent of awareness of other faculty members

Agree: 87.9%

Disagree: 12.1%

With the alpha level being set at 0.05, the chi square analyses suggest there is a significant difference among the staff’s desire to collaborate with other faculty members. A majority of the staff is interested in collaborating with each other but there is a percentage of staff that is not interested in collaboration. This could cause problems for the administrator getting all staff to buy into collaboration and training on future initiatives.
Item # 7, I am concerned about revising my instruction with implementation of the One to One laptop initiative.

Narrative: As shown in Table 7, 60 percent (60.6%) of teachers disagree that they are concerned about making revisions to their instruction through implementation of One to One laptop initiative. This finding suggest that an elective professional development could be offered to those staff that are still not comfortable implementation of One to One laptop initiative.

Table 7

**Percent of revision of instruction**

Agree: 39.4%

Disagree: 60.6%

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>39.4</td>
<td>50</td>
</tr>
<tr>
<td>Disagree</td>
<td>60.6</td>
<td>50</td>
</tr>
</tbody>
</table>

Chi square 0.03406045

With the alpha level being set at 0.05, the chi square analysis suggest there is a significant difference among the staff’s concerns about revising their instruction. This finding suggests that there is staff remaining that express concerns about revising their instruction. There are staff members who might still need more training on One to One laptop initiatives.
Item # 8, I would like to familiarize other departments or persons with my progress of the One to One laptop initiative.

Narrative: As shown in table 8, more than 56 percent (56.3%) of teachers agree they would like to familiarize other departments with their progress of the One to One laptop initiatives. This finding suggests that more than half of teachers would feel comfortable facilitating professional development on One to One Laptop initiatives. The administrator should identify these people and use them as technology leaders to instruct professional development at conferences or other schools.

Table 8

Percent of departments

Agree: 56.3%
Disagree: 43.8%
With the alpha level being set at 0.05, the chi square analysis suggest there is a significant difference among the staff’s desire to familiarize other departments on implementation of One to One laptop initiatives. This finding suggests that half of the staff would like more training before they are prepared to facilitate professional development.

Item 9, I have received adequate training in using computers and other technology to support my work One to One laptop initiative.

Narrative: As shown in table 9, more than 80 percent (81.8%) of teachers agree that they have received adequate training in One to One laptop initiative. This finding suggest that most of teachers believe that the training provided on One to One laptop initiative was adequate and prepared them for implementation in the classroom.

Table 9

*Percent of adequate training*

<table>
<thead>
<tr>
<th>Agree: 81.8%</th>
<th>Disagree: 18.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual: 81.8</td>
<td>Expected: 50</td>
</tr>
<tr>
<td>Actual: 18.2</td>
<td>Expected: 50</td>
</tr>
</tbody>
</table>

chi square: 2.01754E-10
Technology

With the alpha level being set at 0.05, the chi square analysis suggest there is a significant difference among the staff’s concerns about adequate training. Most of the staff believes they received adequate training to implement One to One laptop training. This finding shows that there are staff members who may need more training to allow them to feel comfortable with implementation of One to One laptops initiatives.
CHAPTER FIVE: CONCLUSIONS AND IMPLICATIONS AND NEW LEARNING

One to One laptop initiative survey

The following graph conveys the staff’s perceptions of One to One laptop professional development training. These topics shows that the staff overall agrees with the One to One laptop initiative training that was received.

1. TYPE OF RESOURCE
2. HOW DOES MY TEACHING/ADMINISTRATION CHANGE
3. ONE TO ONE LAPTOP INSTRUCTIONAL APPROACH
4. NON-ACADEMIC PROBLEMS
5. TIME COMMITMENTS
6. AWARENESS OF OTHER FACULTY MEMBERS
7. REVISE INSTRUCTION/TRAINING
8. FAMILIARIZE OTHER DEPARTMENTS
9. ADEQUATE TRAINING
From this graph I learned that overall the staff has a positive perception of One to One Laptop Initiative training. The staff feels they received adequate training to prepare them for integration of a One to One laptop initiative in their schools and classrooms. Topic Six and Nine are the biggest overall area where staff agreed with the training of the One to One Laptop Initiative. The staff agrees that they would like to collaborate with other departments and faculty members on technology training. Topic nine notes that the staff studied agrees they received adequate training and were prepared to implement One to One laptop initiative in the classroom.

Chi Square Analysis Chart

With the alpha level being set at 0.05, the chi square analysis suggests there were both significant and not significant differences among the staff’s concerns with One to One laptop initiative professional development.

<table>
<thead>
<tr>
<th>Significant</th>
<th>Not significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I would like to know what resources are available for the 1:1 laptop initiative</td>
<td>4. I am concerned about my time spent working with non-academic problems related to the 1:1 laptop initiative.</td>
</tr>
<tr>
<td>2. I would like to know how my teaching or administration is supposed to change with the 1:1 laptop initiative.</td>
<td>5. I would like to have more information on time and energy commitments required by the 1:1 laptop initiatives.</td>
</tr>
<tr>
<td>3. I would like to revise the 1:1 laptop initiative instructional approach.</td>
<td></td>
</tr>
<tr>
<td>6. I would like to know what other faculty are doing with the 1:1 laptop initiative.</td>
<td></td>
</tr>
<tr>
<td>7. I am concerned about revising my instruction with implementation of the 1:1 laptop initiative.</td>
<td></td>
</tr>
<tr>
<td>8. I would like to familiarize other departments or persons with my progress of the 1:1 laptop initiative.</td>
<td></td>
</tr>
</tbody>
</table>
Technology

The chi square analysis showed that there are significant differences in the perception of One to One laptop initiative. There seems to be a difference in staff feeling adequately trained for the implementation of technology in their classrooms. The majority of staff fees comfortable with the training received and would like to collaborate with the other staff on integration of technology.

There is not a significant difference on the topics of non-academic problems and time commitments required by One to One laptop initiative. I believe that there is not a difference between the staff with these issues because of the job embedded training they received on technology integration. Time commitment shouldn’t be a concern for a staff that uses job embedded time for training. They also can collaborate with staff and trouble shoot issues with technology and non-academic problems that arise.

As a future administrator of a new school district that has not began the technology transformation in their schools, I will use the model used by the school studied to implement a One to One laptop initiative. I recommend that school districts take a three-year approach to implementation of One to One laptop initiatives. The first year I would ask for volunteers to apply to participate in a technology co-hort. I’d train those teachers and use them in the following years to teach, model and help the entire staff integrate technology into their classrooms. The second year, I’d require all staff to participate in technology training, using the teachers as model teachers from the first year of training. During year three, I’d continue to facilitate professional development that would help teachers integrate technology into their classes on a daily basis.
REFERENCES


Shouppe, G. and Pate, J. (2010, Summer) Teachers’ perceptions of school climate, principal leadership style and teacher behaviors on student academic achievement. *National Teacher Education Journal*, 87-98.


APPENDIX

One to One laptop Initiative Survey


The purpose of this questionnaire is to determine the awareness teachers have about 1:1 Lap Top Initiatives. The items in this questionnaire have been adapted from a resource Donovan, Hartley and Strudler, 2007. Please respond to the item in terms of your present concerns or how you feel about being part of a 1:1 Lap Top Initiative.

Thank you for your time.

For example:

I agree with the statement: 1

I disagree with the statement: 2

1. I would like to know what resources are available for the One to One laptop initiative.
2. I would like to know how my teaching or administration is supposed to change with the One to One laptop initiative.
3. I would like to revise the One to One laptop initiative instructional approach.
4. I am concerned about my time spent working with non-academic problems related to the One to One laptop initiative.
5. I would like to have more information on time and energy commitments required by the 1:1 Lap Top Initiative.
6. I would like to know what other faculty are doing with the One to One laptop initiative.
7. I am concerned about revising my instruction implementation of the One to one laptop initiative.
8. I would like to familiarize other departments or persons with my progress of the One to One laptop initiative.
9. I have received adequate training in using computers and other technology to support my work in One to One laptop initiative.

10. Please circle all of the following descriptors that best describe your role.

   7th Grade Teacher
   8th Grade Teacher
   Core
   Elective
VITA

Tiffany Burnes graduated from Northwest Missouri State University with a Bachelor of Science: Social Science Education degree in 1998, a Masters of Science Degree: Educational Leadership in 2007 and a Specialist in Science Degree: Superintendency in 2012. She has taught 7th grade Social Studies for the St. Joseph School District at Bode Middle School for nine years. She was hired as the Pre K through 4th grade Principal for Riverside USD 114 in Elwood & Wathena, KS.