Teachers Need Help Too

Providing Colleagues Technical Support

"Imagine…in your classroom…an artist, an entertainer, a research assistant, a librarian, a teacher's aide, a historian. A computer can be all these and more." (Futrell and Geisert)

Dorothy Hess

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Inquiry

How can I, as an intern, help experienced teachers learn new technology? What kind of support does a veteran teacher require from an intern to learn and use technology? This inquiry seeks to find out whether teachers would be open to learning new technology from an intern. It also seeks to find out what type of support teachers prefer (one on one, group sessions, manual). I want to explore how offering technology support to the staff of an elementary school could positively effect the students, staff, school, and more. This is my inquiry. In my paper, I will share teacher surveys and personal reflections as I discuss the effects of an intern teaching new technology to colleagues.

Background Information

Description of the Teaching Context:

I am a PDS (Professional Development School) intern in the State College Area School District. Through this program, I have been actively involved within the classroom for one-hundred and eighty five days, where I have observed, taught, attended staff meetings, faculty meetings, conferences, and IEP meetings. Along with my classroom experience, I was also involved in Penn State University methods courses. As a PDS intern, I was placed in a fourth grade classroom at a small school in State College Area School District in State College, PA. My school has kindergarten through fifth grade students, in twelve classrooms. The school is a small, older building with large classrooms and a playground. The size of the building contributes to the formation of a very close-knit school community. The staff of the school is comprised of twelve classroom teachers, 11 females and one male. There is one teacher of Hispanic ethnicity and all others are Caucasian. Our principal is in charge of two elementary schools in the district. There are eight teachers of special subject area (music, art, etc.). There are eight other support staff members, including a learning support teacher, an ESL teacher, an enrichment teacher, a title one teacher, the speech therapist, the school counselor, the learning support teacher, and the school nurse. Of the additional staff, one is of African American heritage and all others are Caucasian. At the school, there are 8 highly experienced teachers with many years of service at Corl Street Elementary. Four teachers are former PDS interns with three years of experience or less.

My class is made up of twenty-two students; there are now ten boys and twelve girls. Academically, I have a diverse classroom of learners. I would consider eight of the

students to have very high reading and mathematical achievement levels. They are able to follow directions, work independently, are self-motivated, and always complete assignments. There are eight students on grade level in reading and mathematics. We also have a few students who struggle to match the rigorous pace of their classmates. Two boys have IEP's that require learning support, one for writing and one for speech. Five students go to Title I for reading. Among these children, I have seen tremendous growth this year in all subject areas. I have witnessed the children blossom into more conscientious learners who are able to clearly articulate their learning in a variety of ways.

On a social level, four of my students are consistent leaders in the classroom. They are outgoing, friendly toward all students, and willing to work with others. We have several very quiet girls in the class. They prefer to work alone and keep to themselves when in class and on the playground. The remainder of the class is comprised of students who are socially outgoing and get along well with the remainder of the class. As a whole, my students prefer working with their close friends on assignments and group work. They are willing, however, to accept others into their groups when asked. Overall, my students have high regard and a genuine care for others.

What Led Me to This Particular Inquiry and Why is it Important

This year, all PDS interns were given Apple I-book laptops. Using technology in the classroom has been emphasized by everyone in the program. As I began to do some teaching and began using technology in the classroom, my mentor teacher asked me if I would help her to learn new technology. She saw an I-Movie that I created for the parents on back-to school night that allowed them to see "A day in the life of a fourth

grader in room 9". I had experienced success using technology in my own lessons.

Among the lessons that I taught using technology, I presented PowerPoint presentations

to the students to teach about the various regions of Africa. Through the PowerPoints, I

was able to successfully reach all learners by providing a clear note sheet that followed

along with the slides in the PowerPoint. I agreed with my mentor that she would benefit

by learning new technology when I saw how students responded in a positive way to

lessons that incorporated technology. In addition to my mentor teacher, a second grade

teacher in the school approached me and asked if I would be willing to teach her how to

use one particular program (I-movie). Seeing a need in the school, I decided to figure out

a way to help other teachers learn new technology.

Research

"Imagine…in your classroom…an artist, an entertainer, a research assistant, a

librarian, a teacher's aide, a historian. A computer can be all these and more."

(Futrell and Geisert)

This inquiry focuses on two main areas, the use of technology and teacher

collaboration. The first part of the inquiry explores the use of technology in the

classroom. Technology is a very powerful tool. It can enhance learning in a variety of

ways covering many areas of the curriculum. Throughout a variety of subjects, different

learning styles can be supported through the use of technology. For example, during

literacy learning, if writing is done on a computer, "technology can show children a more

positive approach to drafting and editing, one that is less tedious and enables them to

focus on content. When students are focused on content, they are motivated and encouraged by seeing a fresh look to the skills of reading and writing." (Leask and Meadows) An article titled "Technology as a Tool in the Primary Classroom" from *Teaching Children Mathematics* provides an example of a teacher using technology in math. The articles states that "Introduction to Geometry for Primary Students, a Web unit aligned with the NCTM Geometry Standard for Grades Pre-K-2, is designed to introduce young children to beginning concepts in geometry." (Alejandre and Moore) The teacher describes the computer lesson as enhancing learning by allowing student to take charge of their own learning.

It is important, however, to note that, "The real challenge for the classroom teacher is less one of simply using computers than of making them *useful* in the instructional endeavor." (Futrell and Geisert) It is important to use technology when it's the most effective tool for the task. The teacher should make sure that it supports the task at hand, enables the learner, ensures that learning outcomes can be achieved, and ensures the quality and value of the task. Teachers should also be wary when assigning tasks that require the use of a computer at home. "There are also pupils in schools who come from less affluent or less richly resourced backgrounds. Teachers need to be aware of these possibilities and to provide opportunities for all pupils to make the best use of technology available in both school and home." (Leask and Meadows)

Some teachers may be predisposed to taking risks and trying new ideas. They may be motivated by the idea that pupils themselves seem eager to use the new technologies and that this helps them in their learning. Other teachers, however, may be interested in trying new technology, but may need some assistance. This is where the second part of

the inquiry focus enters—teacher collaboration. Research shows that "Teacher collegiality avoids the sink-or-swim, trial-and-error mode that beginning teachers usually face. It brings experienced and beginning teachers closer together to reinforce the competence and confidence of the beginners." (Inger) Teacher collaboration allows teachers to share ideas with one another, give advice on managerial problems, discuss curriculum questions, learn new ways to integrate technology in the classroom, and much more. "When teachers work as colleagues, it produces greater coherence and integration to the daily work of teaching. Further, it equips individual teachers, groups of teachers, and their schools for steady improvement." (Inger)

Wonderings/Questions

As opportunities arose in my school to teach technology to teachers, I began to wonder, "How can I, as an intern/student teacher, help my mentor teacher and possibly other teachers learn new technology?" From beyond my original wondering, additional wonderings arose.

- What kind of support does a veteran teacher require from an intern to learn and use technology?
- Will the teachers try the new technology if they know how to use it?
- What method can I use to teach other teachers new technology? Create a manual? Personally tutor teachers?

As my wonderings came together, an inquiry question became clear: How can I, as an intern, help experienced teachers learn new technology and what kind of support does a veteran teacher require from an intern to learn and use technology? The rest of this paper will describe the effects of an intern teaching new technology to colleagues.

Inquiry Plan

Carrying out my Inquiry Plan

After my inquiry was defined, I began to seek answers to my wonderings. I first talked with my mentor teacher about what kind of support she would like in order to learn new technologies. We set up a time each week, during one of our planning periods (Wednesday's during library), to work on learning new technology. Soon after, I designed a survey and distributed it to the entire staff. I placed the surveys in teachers' mailboxes asking them if they were interested in learning new technology and requested that the completed surveys be placed in my mentor's mailbox (See Appendix A). I needed to know if they were interested in learning about technology, what programs they were interested in learning, and what type of support they would like (manual, group technology sessions, personal tutoring, etc.). I eagerly waited for the surveys to be returned.

After 2 weeks, I compiled data from the returned surveys and made a plan. Out of the 21 surveys that I distributed, 10 surveys came in initially. Of the surveys that were returned, almost all of the teachers chose personal tutoring as their preferred mode of learning. While there were 3 teachers who said that group technology sessions would be helpful, the choice of programs that the teachers wanted help with varied, so I made the decision to offer one-on-one support exclusively. There was one teacher who chose the creation of a manual as her preferred mode of learning. However, she requested a program that I was not as familiar with (SmartBoard), so I did not feel comfortable creating a manual for her that might not be clear or helpful. Since beginning my inquiry, I have had a chance to learn and use a SmartBoard, an interactive white board. Perhaps

before the end of the year, I will be able to create a SmartBoard manual. After gathering the data, I created a calendar spreadsheet with times that I was available to offer one-on-one tutoring. I stopped by each staff member's room who submitted a survey to set up times to begin teaching technology. I began one-on-one technology sessions in mid-March with the staff and continued my weekly sessions with my mentor teacher.

Other staff members approached me or turned in a survey after I began my inquiry. There were three separate occasions, after the start of my inquiry, when other staff members either approached me with technology needs or turned in a survey late expressing an interest in learning new technology. As each of those opportunities arose, I set up times with those individuals to help them with their technology needs.

Throughout my inquiry, I found it necessary to be flexible when scheduling one-on-one technology help sessions. On more than one occasion, a technology session that had previously been set up had to be rescheduled due to other school events taking precedence. I had to reschedule two sessions with the learning support teacher because she had to prepare for P.S.S.A. testing. We rescheduled for the following week and those sessions went as planned. I had to reschedule with a second grade teacher because I had an interview with a principal. Due to incompatible schedules, a help session that was scheduled for late March was pushed all the way back to late April. I also rescheduled a session with a first grade teacher because the day her original session was scheduled she was out due to illness. The session, which was scheduled for early April was pushed back to a date in late April. I will continue to provide technology sessions for the remainder of the school year.

Data Collection

There were two main data collection methods that I used, surveys and interviews. Prior to beginning the help sessions, I sent out a **survey** asking the staff if they had any technology needs and if so, what type of support they would prefer. When making a survey to put in the mailbox, I wanted to know whether the staff was interested in receiving help with various technology programs. If they were interested in learning technology, I needed to know what type of support they required in order to be successful. After providing the staff with technology assistance, I conducted **interviews** with the participants to receive information on how they have used or how they plan to use technology in their classroom or with their students, how the type of support that was offered influenced their decision to participate, how learning this technology has influenced their comfort level with other technology programs, and how this experience ranked in regards to other technology training experiences. For a copy of the survey and a list of interview questions, see Appendices A and B.

Informally, I asked the staff members, at the beginning of each one-on-one session, what immediate technology needs they had. If the staff member was having a technology problem unrelated to the program they were scheduled to receive assistance with, I addressed these needs prior to beginning work on the originally planned program(s). After our sessions, I collected any products that the teacher produced as a result of our one-on-one sessions.

Data Analysis

All of my data analysis happened through obtaining information from the school staff via a survey and individual interviews with the staff who received technology assistance. Of the twenty-one teacher surveys that were distributed to the staff, twelve

were returned. I first separated the results into two piles: the staff members who were interested in learning new technology and those who were not. The number of teachers who were interested in learning new technology pleasantly surprised me. Next, I took the nine teachers who were interested in learning new technology and separated those surveys into piles based on which programs they were interested in learning. Because I initially did not have more than 2 staff members interested in learning the same program and all but one circled one-on-one support as the type of support they would prefer, I decided to offer one-on-one support exclusively.

After I began the technology help sessions, I conducted and recorded interviews with the staff members who had received technological assistance. For each of the five interviews that have been conducted up to this point, I listened to each and scribed them in order to be able to look for patterns (See Appendix B). I noted the various ways that staff members have used or plan to use technology in their classrooms or with their students. I looked to see how many answered positively to the question, "Did the type of support that was offered (one on one, group help sessions, etc.) influence your decision to participate?" I noted how many staff members answered positively to the question, "Did learning this new technology help at all with your comfort level with other technology programs?" Among the responses to the other questions, I noted additional comments related to how the type of support offered affected the staff member's attitude towards the technology help sessions and also how these sessions have affected their attitude towards technology in general.

What You Learned or Now Know

Claims and Evidence to Support the Claims

1. **When technology support is offered to a school staff, many staff members are eager to participate.** Considering the size of the school and the staff, a significant percentage (57%) of the total staff expressed interest in learning new technology. Of the twelve classroom teachers that received surveys, 8, or 67%, expressed interested in receiving technology help.

   a. **Evidence 1:** After giving the technology surveys to the entire school staff, I had seven positive responses from staff members seeking technology support.

   b. **Evidence 2:** I later received two more surveys, both requesting technology support. Of the 21 surveys that I distributed, a total of 12 were returned, 9 with positive responses.

2. **Staff members prefer one-on-one technology support to group help sessions or manuals.** The surveys and follow up interviews made it clear that one-on-one support is the preferred method of learning for individuals learning new technology.

   a. **Evidence 1:** Of the ten surveys that I collected, 6 preferred personal help sessions, one preferred written directions, one preferred either group help sessions or written directions, and the others had no preference.

   b. **Evidence 2:** During an interview, a learning support teacher said, "This wonderful person was so calming and I'm very nervous with computers and I can go to 15,000 trainings and I need one-on-one." Later in the interview she said, "In a group, I'm afraid to ask questions and I'm afraid

to look like a dummy in front of all my peers. This was one-on-one, perfect."

c. **Evidence 3:** During an interview, a third grade teacher said, "I like that it was one-on-one because sometimes in group settings, it's too basic for me or it might be too advanced so this is personal and you can go as fast or as slow as you want."

d. **Evidence 4:** During an interview, a kindergarten teacher said, "If it would have been a whole class, I wouldn't have done it because it's very frustrating to sit in a class where we all have different needs. So, it's one person to address 10 different people's needs…."

e. **Evidence 5:** During an interview, a fourth grade teacher said that one-on-one support is "probably the only way for me to learn….It's just too difficult for me to implement something without having somebody there so support me along the way." Later, she said, "I come back from that group instruction that our school district provides more confused and frustrated than when I went in. I truly will never attempt anything alone unless someone is here to help and support me. For me, it's the only way to learn."

3. **There is a wide range of possibilities for staff members to use new technology in their classrooms or with their students.** The follow up interviews illustrate that the staff is excited to use their new learned technology skills in a variety of ways.

a. **Evidence 1:** In an interview, the learning support teacher, on learning how to do aim lines and trend lines in excel said, "We're going to use it for progress monitoring for all the students, for their goals and objectives and their IEP's."

b. **Evidence 2:** In an interview with a third grade teacher, the teacher said, "I'm thinking about doing an I-Movie either at the end of this year or early sometime at the beginning of next year based on one of our units."

c. **Evidence 3:** In an interview with a kindergarten teacher, the teacher stated, "I have implemented the technology. You taught me how to do the tables (in Microsoft Word). I made a table for my para to use for assessments; I just quickly made a table for the word wall words and then she assessed them and that was great, easy, not frustrating at all."

d. **Evidence 4:** In an interview with a fourth grade teacher, the teacher answered, "I've worked on the webpage and I've updated it by myself two days in a row. I hope to take this over and update it for the rest of this school year."

e. **Evidence 5:** In an interview with a kindergarten teacher, the teacher said, "We did the solar system, where, we researched all of the planets together so they found out as much as they could about the different planets, then they had to use kidpix to come up with a picture of their planet. Then, we did some writing and they came up with a little script about their planet and we recorded their voices to go along with their pictures, then we turned the whole thing into an I-Movie and that will be on the internet so

parents can access this, or anyone around the world, their friends and family can access it."

4. **When a staff member becomes more comfortable using one type of technology, he/she is more likely to take risks when working with other programs.** A number of staff members shared experiences that demonstrated how learning one technology program influenced their comfort level with other technology programs.

   a. **Evidence 1:** After several one-on-one technology support sessions with my mentor teacher, she mentioned one day "You know that command you taught me to use on the website to open a new window….I tried it in my email program and it worked!" I had taught my mentor, when teaching her how to update the classroom website, how to open up a new window so she can work on two pages at once. The command "Apple N" can be used in a variety of programs, as my mentor discovered in her email program.

   b. **Evidence 2:** In an interview, a learning support teacher said, "I'm going to try Aims-web and they said it was easier than the excel, so I'm willing to try it. Before, I would have said, ' I'm not doing anything different; I just learned excel.' But, since, I feel comfortable with it now."

   c. **Evidence 3:** In an interview, a fourth grade teacher said, "It makes me much less apprehensive to try new things. I find that if I learn something really minor…it takes me to levels that you can't even imagine. Here's an example…I learned how to use that control "c" and control "v" to copy and paste. There would be times that the menu bar wouldn't be at the top

and I'd just assume that I couldn't cut and paste anything on a page or a website, but just learning something (simple) opened doors that I didn't think were able to be opened. So, just working on a project and learning something like that…has made an unbelievable difference."

5. **It would be helpful to have a full time technology support person in an Elementary Building.** Several teachers expressed frustration that when a technology need arose, there was no one to assist them.

   a. **Evidence 1:** During a one-on-one technology session with a fourth grade teacher, the teacher was reflecting and said, "This just reminds you that there needs to be somebody available to provide technology support all the time. When a technology need arises, immediate help is needed or else it's really easy to give up and not come back to it."

   b. **Evidence 2:** During an interview with a Kindergarten teacher, the teacher said in response to a question asking how this help session ranked in comparison to other technology help sessions, "Oh, it was high high high, 10+….I think it's also because you're very accessible. Like, if we have a problem, you're here all the time. You know, in the past, you leave a session and your help is gone…. When you're in the middle of doing something, you don't want to have wait to get an email back for help."

   c. **Evidence 3:** The learning support teacher said in an interview, "I'll be coming to you in the future anytime I have problems."

6. **Positive word of mouth comments from one staff member can encourage another staff member to seek technology help.** After the start of my inquiry,

there were several opportunities to help a staff member that did not initially express interest. I believe that people heard others speaking positively of their experience and decided to sign up.

   a. **Evidence 1:** After the initial collection of surveys (to be turned in by February 7th) and after I had begun technology sessions with the staff, I received two late surveys. I received one survey during the last week of March and a second late survey on April 5th.

   b. **Evidence 2:** An additional staff member approached me in the classroom to verbally ask me to assist in a technology issue. He said, "You're the technology person, right?"

7. **Changes in school schedules make it necessary to be flexible when scheduling technology help sessions.** On more than one occasion, a technology session that had previously been set up had to be rescheduled due to other school or personal events taking precedence.

   a. **Evidence 1:** I had to reschedule two sessions with the learning support teacher because she had to prepare for P.S.S.A. testing.

   b. **Evidence 2:** I had to reschedule with a second grade teacher because I had an interview with a principal.

   c. **Evidence 3:** A technology session with a first grade teacher was rescheduled because she was absent that day due to illness.

8. **Teacher collaboration can lead to a stronger sense of community in the school.** Teacher collaboration allows teachers to share ideas with one another,

give advice on managerial problems, discuss curriculum questions, learn new ways to integrate technology in the classroom, and much more.

    a. **Evidence 1:** While doing research, I discovered that "When teachers work as colleagues, it produces greater coherence and integration to the daily work of teaching. Further, it equips individual teachers, groups of teachers, and their schools for steady improvement." (Inger)

    b. **Evidence 2:** After I interacted with the learning support teacher to offer support with technology, we began interacting on a deeper level than simply a "Good Morning" while passing through the halls. She invited me to a baby shower for her daughter.

Conclusions and New Wonderings

The implications for my future practice as a teacher

All in all, I found out that teachers are eager to learn about new technology and to collaborate with one another. I discovered that teachers are less intimidated by technology following a successful experience with it. As one kindergarten teacher said, "It was so easy and you were very clear. It was nice that you had everything written down so in the future, three months from now, I'll still know how to do it. I feel confidant…. I think doing things with an I-Movie, where I didn't have any idea, will encourage me to try other things, as long as I have some guidance." I discovered that teachers would like more support when it comes to using and implementing technology in the classroom. Over and over again, staff members stated that the experience with learning technology was successful because they felt supported throughout the process.

I found that other teachers were eager to share a variety of ideas of what they

were doing in the classroom. Just as I offered technology support to the staff, a strength of mine, several staff members offered support to me in various other areas. They shared various lesson ideas that I could use in the classroom, from math lessons to lessons for literacy stations.

Through this inquiry, I have discovered that it is important to share your strengths with other staff members. I will continue to collaborate with school staff, involving technology and with lesson ideas in general. I will share with staff members how technology is a powerful tool. After sharing ideas that incorporate technology, I will offer one-on-one support should they choose to try similar ideas in their own classroom or with their students. I have seen, first hand, positive responses to teacher collaboration in learning new technology and I am excited to continue to share and collaborate throughout my years of teaching.

New Wonderings

Although I learned a great deal through this inquiry, there are additional wonderings that I hope to explore in the future, within the school where I am currently an intern and as I move to new schools and work with new staff members:

- Will the teachers that I taught continue to use the technology that they learned for years to come?

- What, if any, technology programs will the participating teachers learn in the future after this successful experience?

- In additional to learning how to use and implement technology, what other skills could teachers learn from one another?

- Would the need for teaching technology be as great in a school with a full time technology specialist?

- Are students learning more with or about technology because their teachers are more comfortable?

- Being in an older building, we are technologically restricted by the limitations of the building (no wireless internet, no permanent projector, etc.). If my future buildings are more limited or less limited, how will it affect my use of technology and my ability to help other colleagues?

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