



NEEDS ASSESSMENT

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EDLF 700 – Dr. Mable Kinzie

Jackson-Via
Elementary School

Executive Summary

Jackson-Via Elementary School agreed to participate in a technology needs assessment project conducted by several students from the Instructional Technology program at the University of Virginia. The purpose of this needs assessment is to examine the current levels of integration of technology into the curriculum and instruction with the aim of supporting the enhancement of that process in a manner that will support the improvement of student scores in the Virginia Standards of Learning. The methodologies to be used in this study will be evaluation, observation, interviews, and case study.

The preliminary assessment found that Jackson-Via has many strengths with respect to technology integration. Not only do the Principal and Instructional Supervisor have a strong interest in the continued integration of technology into its educational philosophy and practices, but the school also has a long-standing [yet currently dormant] technology committee and a set of goals and objectives for technology implementation. It also has teachers who have established basic competencies in computer technology and a well-equipped computer lab and individual computers in each classroom.

Preliminary interviews and a school-wide assessment revealed that few teachers actually use technological resources in a systematic and integrated approach towards curriculum development and instructional diversity. Upon analysis of the needs assessment, one of the primary obstacles to effective integration of technology into the curriculum was the lack of basic skills and an inconsistent and infrequent application of these skills resulting in a diminution of over time. Basic skills needing development were word-processing, use of the internet, information architecture, graphics and multimedia integration, database and spreadsheet management. A hierarchy of needs can be developed and a systematic methodology implemented for the remediation of skill deficiencies through training, peer-support, resource development, and independent study.

Table of Contents

Executive Summary	1
Table of Contents	2
Environmental Assessment-Methods and Purpose	3
Introduction to Physical Environment	3
Aspects of Social Environment	4
Aspects of Institutional Environment	4
Summary and Preliminary Findings	5
Skillset Table	7
Table of Teacher Comfort and Basic Word Processing	9
Table of Teacher Integration of Internet	11
Table of Information Architecture	12
Table of Graphic Integration	14
Table of Digital Camera a Video Camera Effectiveness	15
Goal Statement, Selected Needs, Recommended Solutions	16
Table of Presentation Tools	17
Table of Database Management	18
Table of Spreadsheet Management	19
Table of Use of Video-Microscope	19
Graph of Survey Results	20
Graph of Word Processing/File Management and Spreadsheets Results	21
Graph of Databases and Presentations Results	22
Graph of Internet and Imaging Results	23
Graph of Graphics and Video Microscope Results	24
Technology Needs Assessment Survey	25
Technology Needs Assessment Survey Results	28
Results of Ranked Needs from Survey	31

Jackson-Via Elementary School – Environmental Assessment

Environmental Assessment - Methods and Purpose

The current needs assessment focuses on understanding current levels of use and integration of computer based technologies as well as identifying desired levels of use and support for more effective technology integration at Jackson-Via.

School Visit – An initial school visit was conducted to introduce the members of the needs assessment team to the school leaders, share the intent of the needs assessment, and to tour the school. Additional school visits may be planned as the project develops.

Survey – A survey instrument was designed and administered for the purpose of determining current staff perceptions of technology use in their classrooms. In addition, the survey was used to obtain information about teacher notions of technology support, barriers to effective use, and structures currently supporting the effective use of technology in classrooms. The results of the survey will be analyzed and used to paint a clearer picture of technology integration at J-V.

Interviews and Observations – As the project develops interviews and observations are being considered as a means of obtaining the unique perspectives of key stake holders. Specific teachers, administrators, Central Office staff, student and parents are all potential candidates.

Case Study – Case studies are also being considered as meaningful ways of obtaining data to inform the needs assessment. Specific teachers may be targeted for a case study to help illustrate effective or desired levels of practice in terms of technology use and integration in the classroom.

Introduction to Physical Environment

Jackson-Via (J-V) Elementary School is located in the southern portion of the city of Charlottesville, Virginia. The school, which originally opened in 1970, is named after two prominent Charlottesville educators: Nannie Cox-Jackson and Betty Davis-Via. Jackson-Via is a purpose built school. Original ideas for the school were conceived in 1966 when the Superintendent of Charlottesville Public Schools, Dr. Edward Rushton, tasked a group of teachers and administrators to develop plans for a school that would be adaptable to the changing needs of Charlottesville students.

The physical building houses grades PreK-4. It was designed as a two story open-space building with four classrooms in each unit. The classrooms in each unit were originally constructed with sliding walls to permit flexibility in classroom size, and to accommodate flexible classroom arrangements. Since 1989, some permanent walls have been built in

various areas of the building. The upper level of the school houses the library, computer lab and several classrooms.

The computer lab is centrally located and houses 20 iMac computers that are all networked throughout the school and to the CCS network. All computers in the school are connected too the internet. At this time, there are no designated school personnel charged with maintaining the lab, or providing technical support for teachers. All requests for hardware maintenance are provided by one technical person from central office who is responsible for all iMacs in the City Schools. In order for a computer to be serviced, the person who notices the problem needs to send an email requesting the computer technician to come to the school. All teachers have equal opportunity to sign up for a designated time to use the computer lab. However, the majority of the teachers who use the lab on a regular basis are the fourth grade teachers and the music teacher.

The teachers lounge was repurposed this year as a food service area where students receive their lunches. Prior to this, lunches were made at a local high school and transported to JV. The lower level of the school houses four classrooms, the gym, music room, auditorium and auxiliary rooms.

Aspects of Social Environment

Jackson-Via serves the Charlottesville areas of Fry's Spring, Ridge Street, S. First Street, Prospect Ave., and includes Belmont and Willoughby. The school serves approximately 315 students in grades preschool through four. The surrounding community is comprised largely of single family homes and apartments. Nearly all students ride a bus to school.

Jackson-Via has a full-time staff of approximately 69 people. The staff is arranged in the following manner: 1 Principal, 1 Instructional Coordinator, 1 Secretary, 1 Guidance Counselor, 25 Teachers, 18 Instructional Assistants, 16 Support Staff and 6 Itinerant Program Staff. Of the total staff there are 65 females and 4 males.

At this time there are 4 teachers in fourth grade, 4 in third grade, 4 in second grade, 3 in first grade, 3 in kindergarten and 4 in preschool. Each teacher is able to sign up for designated computer time. However, looking at the sign up sheet reveal that the fourth grade, music teacher, and a few second and third grade teachers are signed up to use the lab. Yet, if you were to walk to the computer lab as a teacher's designated time, you are more than likely to see the computer lab empty. The Instructional Coordinator has a great interest in furthering the use of the lab, however she has many other obligations to deal with (SOL's, behavior management, tutoring, etc.) besides the computer lab.

Each classroom has one iMac which is networked and internet accessible. During our initial visit we did not observe any students or teachers using computers. However, in the fourth grade, each classroom has 34 Power Macs and these teachers seem to work together on technology projects. A key factor in the level of use among 4th grade teachers seems connected to teacher collaboration and willingness to teach using technology. The fourth grade teachers were able to work out a schedule so that all students could benefit from the use of technology.

Aspects of Institutional Environment

Jackson-Via has implemented a variety of programs to respond to and support the unique needs of its student population. Some of these programs are outlined below:

* QUEST - Intellectually gifted students at the elementary level (K - 4) receive services through a collaboration/ consultation model. Classroom teachers and gifted education specialists work together to plan activities and challenges to meet the needs of identified students.

* C.L.I.M.B. – (Choosing Life-Skills in Modeling Behavior) Students are recognized by teachers and staff for their commitment to demonstrating life-skills taught at J-V including: active listening, no put-downs, trustworthiness, truthfulness, and personal best.

* Book Buddies - Book Buddies is an early intervention program for students in the primary grades who need some extra one-on-one support in learning to read and write.

* Accelerated Reader – This program is a computer based tracking system that is used to assess student performance and reading level. Nearly all the books in the school's library collection have been coded and entered to correlate with the Accelerated Reader program.

*After school tutoring – This program focuses mainly on the third and fourth grade. Around February or March the third grade group focuses more on SOL preparation.

Most recently, Jackson-Via School was the recipient of a competitive 2-year Reading Excellence Act Grant in the amount of \$249,000. These funds support the hiring of a Literacy Coordinator, allow for extensive staff development, and the implementation of the SOAR (Supporting Outstanding Achievement in Reading) Program for students. Instructional Assistants are an important component to this grant. All grade levels are broken into reading groups of 5-8 students. The assistants are expected to work with a small group during the SOAR time. Meeting the needs of all students and providing quality learning experiences remain top priorities for the staff at Jackson-Via School.

Summary and Preliminary Findings

On Friday, 1 November 2002, Dawn LoCasale, Patrick Minges, and Jeff Nugent met with Paige Valeta (Principal) and Nancy Lambert (Instructional Coordinator) at Jackson-Via Elementary School. During this meeting participants discussed the purpose and timeline of the needs assessment project. Issues regarding access to teachers, staff and classrooms were discussed. After this brief initial meeting a tour of the school facility was conducted. Observations were made of the classrooms, library, food service area, and the computer lab. Brief introductions were also made with a group of grade 4 teachers, and casual observations of their classrooms were conducted. Initial findings based on this school visit are outlined below:

- *School Technology Committee Has Disbanded* – Coinciding with the departure of key staff the school Technology Committee no longer exists. The Technology Committee was responsible for designing the technology plan, designing and providing staff development opportunities, and producing yearly status reports. None of these activities are being supported in the current school year.
- *A Computer Lab Exists* – A computer lab consisting of 20 Apple iMacs exists for teacher use on a sign-up basis.
- *No Computer Technology Support Exists* – Currently, there is no full or part-time technology personnel to support teachers in their use of technology at the school. Responsibility for the maintenance of the hardware and software is provided by a single computer technician who is responsible for all computers in CCS.
- *Computer Lab Use is Limited* - Only a few of the teachers (4-5) appear to be signing-up for and using the resources in the computer lab on a regular basis.
- *Classroom Computer Clusters Exist* - Some classrooms have clusters of 3-4 computers. It was observed that teachers who appear to have a higher level of comfort with computers received additional classroom resources for use with students. These computers tended to be older machines that were perhaps replaced by newer machines in other areas of the school.
- *Teacher Technology Leaders Exist* – It appears that there are some teachers who are taking the lead in terms of technology integration in their classrooms. Based on initial observations, one grade 4 teacher and a music teacher demonstrated a leadership role in terms of computer technology integration.
- *Technology SOL Assessment is Being Phased Out* – Based on conversations with the school principal it appears that the assessment for technology SOL's in the state of Virginia is being discontinued. Given recent emphasis for improved performance on identified state SOL's, this may have implications for teacher concern in regard to technology integration. However, actual elimination of the Virginia SOL technology assessment needs to be confirmed.

Skillset*	Current Performance	Desired Performance	Evidence	Importance
Effective Use of Information Architecture	Teachers use single directory to save all files. They exhibit little knowledge of file naming, directories, and subdirectories.	Teachers demonstrate an understanding of the basic principles of information architecture through application of basic skills.	Interview, Survey	These basic skills are critically important for both teacher and student. Poor Information architecture creates work and costs time. It could also lead to loss of materials and resources.
Functional Wordprocessing Skills	Teachers are able to use word processor for basic tasks, but few are able to incorporate graphics, tables, charts, etc. and use mailmerge, etc. Only about half of the teachers encourage their students to use word processor..	Teachers demonstrate comfort and facility with basic and intermediate word processing skills. They pass these capabilities on to their students and encourage exploration and skill development.	Interview, Survey	Word processing is a most basic and critical skill necessary in both work and academic environment. These skills facilitate creation and enhancement of curricular resources. The teacher's development of these skills in student's would promote academic and professional growth.
Functional Spreadsheet Management	Very few teachers use spreadsheet to create lesson plans, seating chart, grade book, etc. Students are not encouraged students to use spreadsheets to organize data , create graphs, charts, etc.	Teachers recognize the contribution that the use of spreadsheets can make to the preparation and presentation of classroom materials. Both teacher and student show comfort and facility with the use of spreadsheets to organize and present information.	Interview, Survey	Properly used, spreadsheets can make an important contribution to teacher workflow as well as a more effective preparation and inviting presentation of curricular materials. Teacher use would serve as a model and instrument for cultivating the use by students.
Effective Use Of Database Capabilities	Few teachers use databases to keep student records, basic classroom information, materials inventory, or for resource development. As these resources are not used, efficiency measures such as data collection, and presentation, mail merge, labeling etc. are not utilized.	Teachers develop a familiarity with the labor saving and information management capabilities of databases. They demonstrate basic skills in the utilization of these capabilities and explore possibilities for further development	Interview, Survey	The proper use of databases could increase time management skills and promote greater enhancement of curricular resources. Student records, inventory, and materials management could be enhanced. At the top end, these databases could be used for web based learning exercises.
Effective Use of Computer-Based Presentation Tools	A few teachers seem prepared to use slideshow software and projection hardware to assist in the delivery of instruction. The majority of teachers however do not use this	Teachers effectively use presentation software and hardware to support and enrich classroom instruction.	Interview, Survey	Presentation software and hardware can turn a single computer into a powerful teaching tool. Proper use can promote the design of media rich lessons and activities, as well as provide an inspirational

	resource for instruction.			format for the display of student work products.
Effective Use of Internet Resources	Many teachers use the Internet to locate resources and lessons to support classroom instruction. Few teachers however encourage their students to use the Internet to conduct research and similar resource gathering.	Teachers effectively integrate Internet resources into their instruction, and promote student use of Internet resources to enrich and support learning.	Interview, Survey	Internet resources for education are rich and varied. Teachers should extend their notions of its utility for lesson planning to include student engagement with web-based activities and research, i.e., WebQuests. Technology integration of this nature promotes research, collaboration, knowledge generation and problem solving skills among students.
Effective Use of the Digital Camera and Video Camera	Teachers are able to use the digital camera to take pictures, but are unable to download or insert pictures into a document. Majority of teachers are unable to use the video camera. Students are not encouraged to use the digital camera or the video camera.	For teachers to realize the potential use of the digital camera and video camera for classroom projects. The desire would be to have students and teachers using the digital camera and video camera on a regular basis for classroom projects.	Interview, Survey	The use of the digital camera and video camera would allow students to explore and learn state mandated curriculum through multiple activities and intelligences.
Effective Use of Graphics	Few teachers are able to insert graphics and therefore they are unable to encourage their students to insert graphics.	For teachers to insert graphics into their own documents and encourage students to insert graphics into classroom projects.	Interview, Survey	The use of graphics would allow teachers and students to create interesting newsletters, classroom projects, slideshows, etc.
Use of the video-microscope	Very few teachers are using the video-microscope in their classroom.	For teachers to use the video-microscope with their students during science lessons.	Interview, Survey	The use of the video-microscope in science would allow the students to view a small habitat as if they were there themselves.

* Full detailed information on skillsets and competencies, see Appendix I: Technology Needs Assessment Survey

Table 2. A: Teachers demonstrate comfort and facility with basic and intermediate word processing skills.

Methods of Addressing	Advantages	Disadvantages
<p>Teachers will receive small group training in basic word processing skills such as new file, data entry, font and paragraph formatting, alignment, cut and pasting, spellcheck, naming, saving, and printing files. Key aspect of this process is the use of the “help” feature of the program itself.</p>	<p>Small student/trainer ratio will promote ease of learning, more direct support for individual needs, capability for diagnostic prescriptive process, and collective support and feedback Peer group effort promotes comfort level and provides for continuing learning and support.</p>	<p>The major issue here is finding time in busy school day for training sessions. A corollary problem is the logistics of scheduling. In addition, what incentives are provided for group participation and what opportunities for follow up activities?</p>
<p>Teachers will receive small group training in intermediate word processing skills such as the insertion of graphics, tables, and footnotes. Other important skills taught would be search and replace, stylesheets, table of contents setup and formatting, breaks and section breaks, mailmerge, and exporting to html and pdf. Key aspect of this process is the use of the “help” feature of the program itself.</p>	<p>Small student/trainer ratio will promote ease of learning, more direct support for individual needs, capability for diagnostic prescriptive process, and collective support and feedback Peer group effort promotes comfort level and provides for continuing learning and support.</p>	<p>These are some pretty complex skillsets and there is great potential for loss of data. This requires a pretty high comfort level and frustration tolerance. In addition, these are not skills that come into play in regular teacher workday and there may some questions as to need.</p>
<p>Teachers will receive computer based training in basic word processing as provided by interactive commercial or educational training tools such as cd-rom, video, or online tutorial.</p>	<p>Self-monitoring and individualized scheduling and training process. There is also greater freedom as to where this training could take place; it could even be done at home. A good program will build upon preexisting capabilities to foster skills development.</p>	<p>The greatest problem here is the lack of peer group support and guidance. Frustrations are not shared and could become a disincentive for further training. Lack of human interaction and detailed individual support. However, the most glaring issue is that people not comfortable with computers</p>

		would hardly benefit from computer training.
Resource room for skills development in which teachers could schedule time for individualized training.	One to one instruction promotes enhanced skill development through individualized training. Diagnostic prescriptive approach allows for maximum optimization of both time and training.	Basic problem here is resources, both human and capital. Few systems have even enough resources for minimal implementation of such a program. In addition, there is no sense of group support and solidarity.
Training cooperative in which teachers could share own skills with peers in either small group setting or on a one to one basis,	Greatest asset here is personal interactions and comfort level promoted by peer training. Social reinforcement for collective participation is very high. As trainers are fellow teachers, there is greater concern for essential skills and critical implementation in ongoing curriculum development.	Basic problem here is preexisting lack of skillsets. Very few people have requisite skills and would thus assume primary responsibility for training. This would increase workload and daily stress. Incentive for participation is huge issue here. resources, both human and capital. Few systems have even enough resources for minimal implementation of such a program. In addition, there is no sense of group support and solidarity.
Partnership/mentor model for training and skills development. Person with more advanced skills works with skills development for less well-trained peers.	One to one instruction promotes enhanced skill development through individualized training. Another asset here is personal interactions and comfort level promoted by peer training. Ongoing personal commitment allows for followup and requisite skills development	Once again, resources and time are an issue. Juggling a regular teaching load with both mentor/partner responsibilities would be difficult. Partnering might also offer difficulties.

Table 2.B: Teachers will effectively integrate Internet resources into their instruction.

Methods of Addressing	Advantages	Disadvantages
Teachers will demonstrate ability to find relevant resources using Internet search engines.	The Internet has a wealth of resources for use by teachers at all levels and content areas. Effective search strategies are the key to finding meaningful and useful resources.	Searching for resources on the Internet can be time consuming and frustrating. One of the key barriers to effective use of technology in the classroom is finding time.
Teachers will locate and use relevant Internet resources to design lessons and activities.	The Internet can provide innovative multimedia resources that can motivate students and enrich learning.	Teachers need time, guidance and support to select and use Internet resources in innovative ways. Effective modeling of the use of innovative resources is often required.
Teachers will design lessons that require students to conduct research using the Internet.	Activities that encourage student research using the Internet can develop essential skills and promote self-directed learning.	Encouraging students to develop self-directed learning skills requires teachers to rethink traditional teaching practices.
Teachers will work collaboratively with other teachers to share lessons, activities and Internet resources.	Teacher collaboration can create a community of learning that inspires risk taking, confidence and innovation.	Teacher collaboration requires time and support. Too often teachers are isolated and have little time or incentive to collaborate.

Table 2.C: Teachers will effectively use information architecture in their classroom.

Methods of Addressing	Advantages	Disadvantages
<p>Each teacher will work in a small group with one mentor or instructor. The mentor or instructor will show the teacher how and explain why it is important to create folders within folders; and how this allows them to help keep all documents organized within the schools network.</p>	<p>By using small groups, a mentor or instructor will be able to address individual teacher needs. The mentor can also help the teacher to organize their teacher's folder on the network and how this will allow the teacher to save time when locating needed documents. The mentor or instructor will also be able to share with the teacher how saving all work to the network provides a backup of all teacher documents.</p>	<p>You need to have a mentor or instructor who is willing to take the time to work with fellow teachers on organizing their folders.</p>
<p>Each teacher will work in a small group with a mentor or instructor who will show them how to create individual student folders and why this is an important skill for students and teachers. The mentor will then help the teacher to create a folder for each of their students.</p>	<p>By working in small groups with teachers, the mentor or instructor will be able to help the teacher to create student folders which has immediate use and relevancy. The mentor or instructor will also show the teachers how they can evaluate student work by showing the teacher how saved work can later be used by students for future use, as well as, using the saved documents as an electronic portfolio for the student, teacher, and parents.</p>	<p>It could be difficult finding a school mentor or instructor who is willing to give their time freely.</p> <p>Creating and instructing the teacher on how to access their student's folders can be time consuming in the beginning.</p> <p>Some teachers may not have their students using the computer; therefore there is no work to save in a folder.</p>
<p>A mentor or instructor will work with small groups to show the teacher how to access reading comprehension questions related to their chosen book for their reading group.</p>	<p>The mentor or instructor will be able to explain and show individual teachers as well as small groups how to use the school's network to access reading comprehension questions that are relevant to that</p>	<p>It could be difficult finding a school mentor or instructor who is willing to give their time freely.</p> <p>Taking the time to show each teacher the procedure for locating and accessing</p>

	teachers specific reading group and chosen book. The mentor will also show the teachers how they can save time by incorporating the schools comprehension questions into their lessons.	the reading comprehension questions takes time.
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Table 2.D: Teachers will effectively integrate graphics and graphic skills development into their instruction.

Methods of Addressing	Advantages	Disadvantages
Teachers will demonstrate ability to recognize different types of graphics and their potential applications in a variety of educational applications.	Graphics have the capability to bring to life instructional tools and resources. They can motivate students and enrich learning. They also can promote the easy presentation of complicated information.	Knowledgeable use and implementation of graphic capabilities can be a demanding and frustrating enterprise for novices. There are few opportunities for skill development and even less options for effective support. Lastly, computer resources are sometimes inadequate.
Teachers will locate and use relevant software packages to supplement resources and to contribute to the preparation and presentation of instructional materials.	There are a variety of effective and even fun software packages that support. Many of them are free or inexpensive and can be downloaded from the Internet. Basic skills learned in one program can be translated to other programs.	Teachers need time, guidance and support to select and use appropriate software in different settings. The multitude of settings and applications can be daunting to the novice. Effective modeling of the use of innovative resources is often required.
Teachers will design lessons that require students to use graphics software and incorporate graphics into their work.	Activities that encourage student work using the graphics can develop fundamental skills and promote an orientation to multimedia work..	Graphics software and packages are not always intuitive and may require extra work for students to incorporate into their work. In addition, many software packages are not integrated with graphics capabilities and do not promote their ease of use.
Teachers will work collaboratively with other teachers to develop graphic skills and capabilities and support each others work. They can brainstorm innovative ideas about how best to integrate graphic	Greatest asset here is personal interactions and comfort level promoted by peer training. Social reinforcement for collective participation is very high. Teacher sharing of ideas and lesson plans can provide	Basic problem here is preexisting lack of skillsets. Very few people have requisite skills and would thus assume primary responsibility for training. Again, resources both human and capital can be a

capabilities into ongoing work.	opportunity for cross disciplinary learning.	problem here.
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Table 2.E: Teachers will demonstrate effective use of digital camera and video camera.

Methods of Addressing	Advantages	Disadvantages
Teachers will use digital cameras to record classroom events.	Using and displaying digital images of classroom events and students can foster classroom identity and group cohesion.	Excessive printing of digital images can be costly.
Teachers will encourage students to use digital camera to capture images for use in class work products.	The use of relevant digital images can enhance the value of student work.	Instruction for students in the proper use of the cameras, downloading, saving and importing images takes time away from other instructional tasks.
Teachers will use video camera to record student presentations.	Video is a powerful medium for instruction and reflection on student performance.	Learning to use video cameras and editing equipment can be a complex and time consuming task.
Teachers will encourage students to use video camera to create short movies.	Video is a powerful medium for learning and teaching. Students can become creators of valuable knowledge products that can be easily shared with a wide audience.	Teaching students to use video cameras and editing equipment can be a complex and time consuming task.

Goal Statement

The Faculty will recognize the value of integrating technology into existing SOL based curriculum by developing comfort levels while mastering the basic computer skills through purposeful creation of meaningful student collaborative projects.

Selected Needs

Teachers demonstrate comfort and facility with basic and intermediate word processing skills.

Teachers will effectively integrate Internet resources into their instruction.

Teachers will effectively use information architecture in their classroom.

Teachers will effectively integrate graphics and graphic skills development into their instruction.

Teachers will demonstrate effective use of digital camera and video camera.

I Recommended Solutions

A. Training

1. Small group training
2. Classroom observations of effective use of technology integration:
3. Individualized training with software, videos, cd-roms

B. Incentives

1. Release time
2. Renewal credit
3. Pay increases (dreaming)

C. Resources

1. Peer mentoring
2. Provide curriculum support through home webpage
3. Hiring of full time technology specialist to support teachers

Table 2F: Effective Use of Computer-Based Presentation Tools

Methods of Addressing	Advantages	Disadvantages
<p>A mentor or instructor will work with a small group of teachers on how to use the AppleWorks Slideshow effectively in their classroom.</p>	<p>The mentor or instructor will be able to give small group instruction and individual help.</p>	<p>It could be difficult finding a school mentor or instructor who is willing to give their time freely. Takes time to create or locate material for Slideshows.</p>
<p>A mentor or instructor will work with a small group of teachers on how to incorporate slideshows into their own existing lesson plans.</p>	<p>A mentor or instructor could help the teacher see how the use of slideshows can help enhance student learning and interest. They could also provide examples of slideshows using material that is relevant to the group of teachers being taught.</p>	<p>It could be difficult finding a school mentor or instructor who is willing to give their time freely.</p> <p>It takes time to incorporate slideshows into lesson plans and create meaningful experiences for the teachers.</p>
<p>A mentor or instructor will work with a small group of teachers to present ways of creating project-based learning through the use of slideshows, internet, graphics, digital equipment, etc.</p>	<p>Small groups would allow for the teachers to share ideas with each other and allow the mentor or instructor to base the lessons around the teacher's interests.</p>	<p>It could be difficult finding a school mentor or instructor who is willing to give their time freely.</p> <p>It takes time, practice, creativity, and communication for teachers to learn how to create projects using Slideshows.</p>

Table 2.G: Teachers develop a familiarity with the labor saving and information management capabilities of databases.

Methods of Addressing	Advantages	Disadvantages
<p>Teachers will demonstrate ability to use databases to keep student records, basic classroom information, materials inventory, or for resource development.</p>	<p>The proper use of databases could increase time management skills and promote greater enhancement of curricular resources. Student records, inventory, and materials management could be enhanced. At the top end, these databases could be used for web based learning exercises.</p>	<p>Databases can be somewhat difficult to use because they require a different conceptualization than do most programs. If one doesn't understand field structures and their variations, this can cause problems. In addition, the loss of data and records can occur and this can be quite a problem.</p>
<p>Teachers will demonstrate ability to use databases in conjunction with word processors in a mailmerge capacity to create labels, envelopes, and indicially label their own or students work,</p>	<p>Many word processing programs have integrated mailmerge programs and use wizards to support their use. This makes learning these skills easy and sometimes fun. Basic skills learned in one program can be translated to other programs.</p>	<p>Teachers need time, guidance and support to select and use appropriate software in different settings. There is a relative high learning curve in something such as this and ongoing support is needed. If there are problems, then these things are often difficult to debug.</p>
<p>Teachers will design lessons that help students learn to use basic databases to store items such as their cd's, recipes, phonelists, and or addresses,</p>	<p>Activities that encourage student work using databases can develop fundamental skills and promote the development and interest in a very valuable and productive work skill. Databases are used quite often in many settings and knowledge of their use is quite helpful.</p>	<p>Basic problem here is preexisting lack of skillsets. Very few people have requisite skills and thus when students encounter problems, they have limited abilities to overcome difficulties.</p>
<p>Teachers will learn to recognize the presence of databases in the ongoing work of education. Nearly every school uses databases in some form or another and teachers often encounter them in application.</p>	<p>That these databases exist in their own setting and are used for a variety of functions promotes a familiarity and acceptance of what can be a formidable technological skill set. Ease of data entry and varieties of outputs and uses promotes an appreciation of their usefulness.</p>	<p>Because databases are so omnipresent and multifaceted, it is often easy to overlook and underappreciated their value. In addition, there are some fears associated with the use and abuse of information gathered and gleaned from databases.</p>

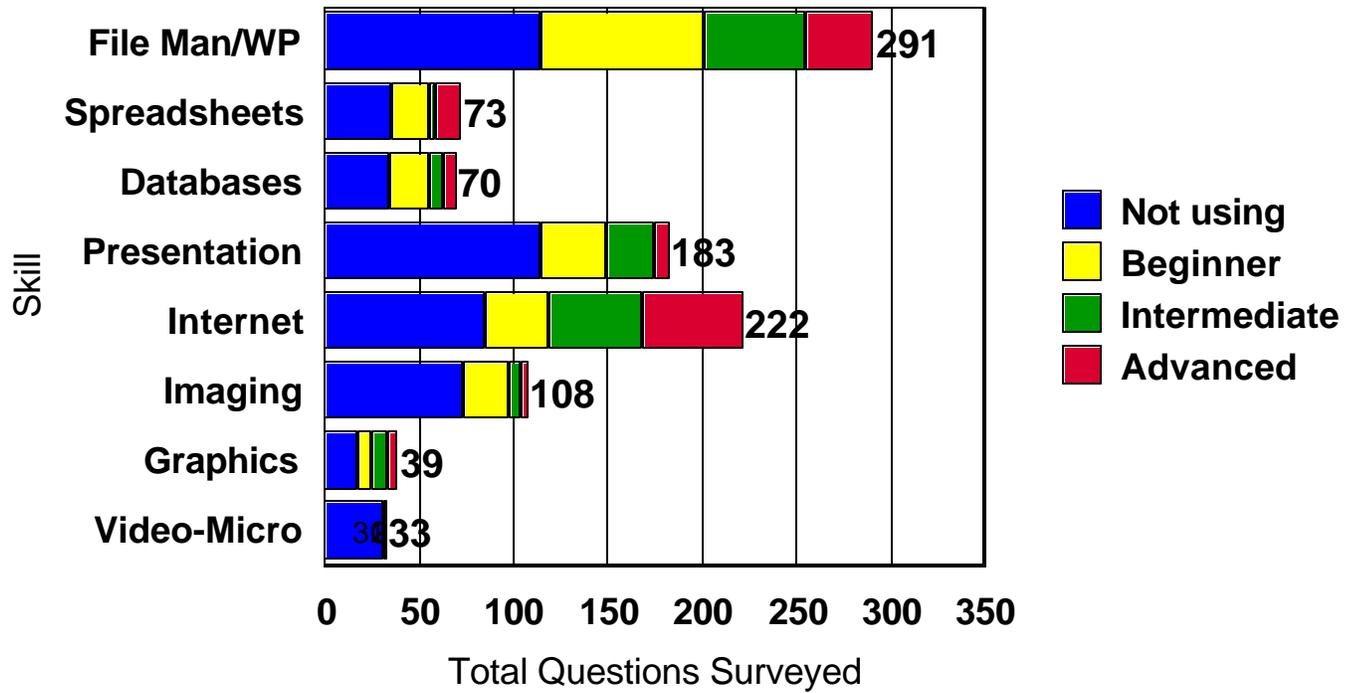
Table 2.H: Teachers will demonstrate functional use and management of spreadsheets.

Methods of Addressing	Advantages	Disadvantages
Teachers will use spreadsheet software to manage classroom data about student performance.	Tracking student performance is helpful in monitoring progress and for informing instructional decisions.	Many schools have separate grading programs that are used throughout the school. Learning to use spreadsheets for this task might be redundant.
Teachers will use spreadsheet software to create data tables and graphs of collected data.	Spreadsheet software is a powerful tool for graphical data representation and analysis.	Not all teachers engage students in content that requires the organization and analysis of graphical data.
Teachers will teach students how to use spreadsheet software to make data tables and graphs.	Using spreadsheet software to organize and graph data is valuable for helping students develop analytical and problem solving skills.	Teachers need to have a relevant and meaningful context in which to instruct students in the uses of spreadsheet software.

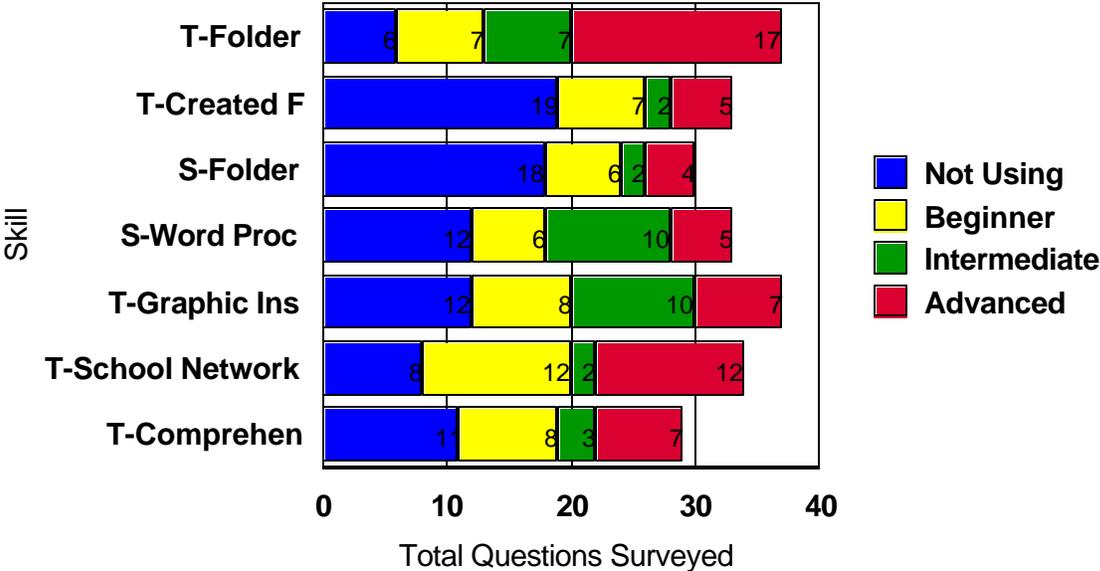
Table 2.I: Effective Use of the Video-Microscope.

Methods of Assessing	Advantages	Disadvantages
A fellow teacher, instructor, or mentor will show each grade level teacher how to effectively incorporate the use of the video-microscope in their classroom for science experiments.	This would allow each teacher individual attention and experience with using the video-microscope. This would allow grade levels to ask questions about grade related curriculum and the use of the video-microscope.	It could be difficult finding a school mentor or instructor who is willing to give their time freely. It takes time to go to each classroom or grade level to show how to incorporate the video-microscope.

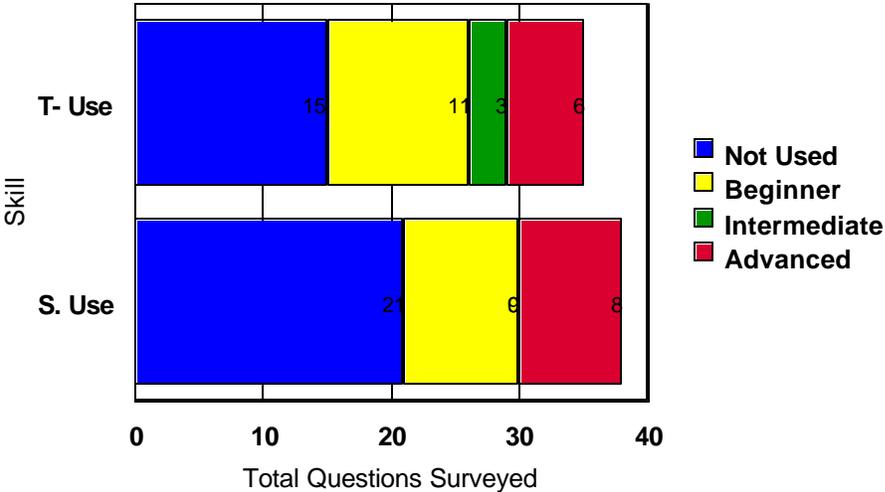
Survey Results



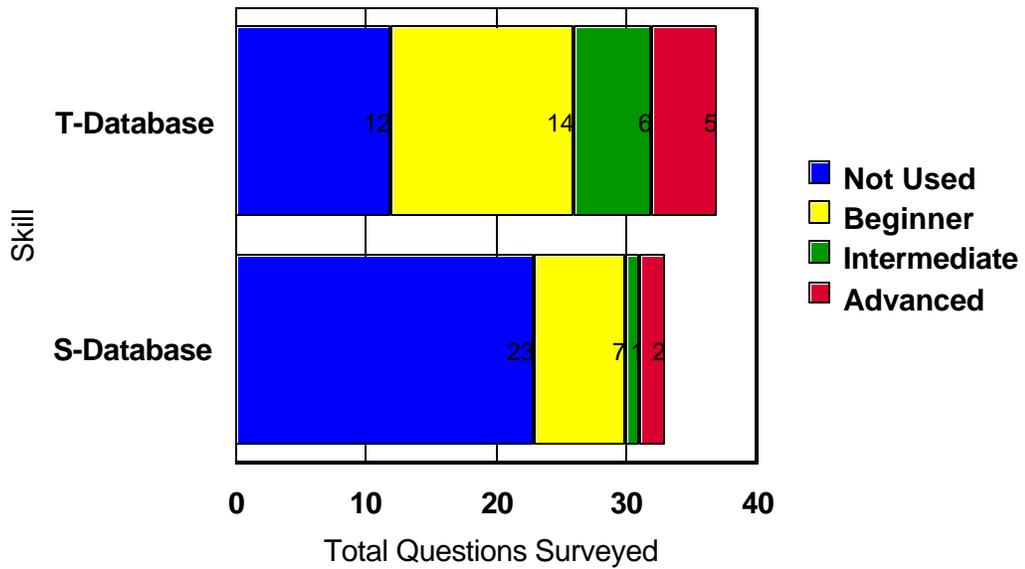
Word Processing/File Management



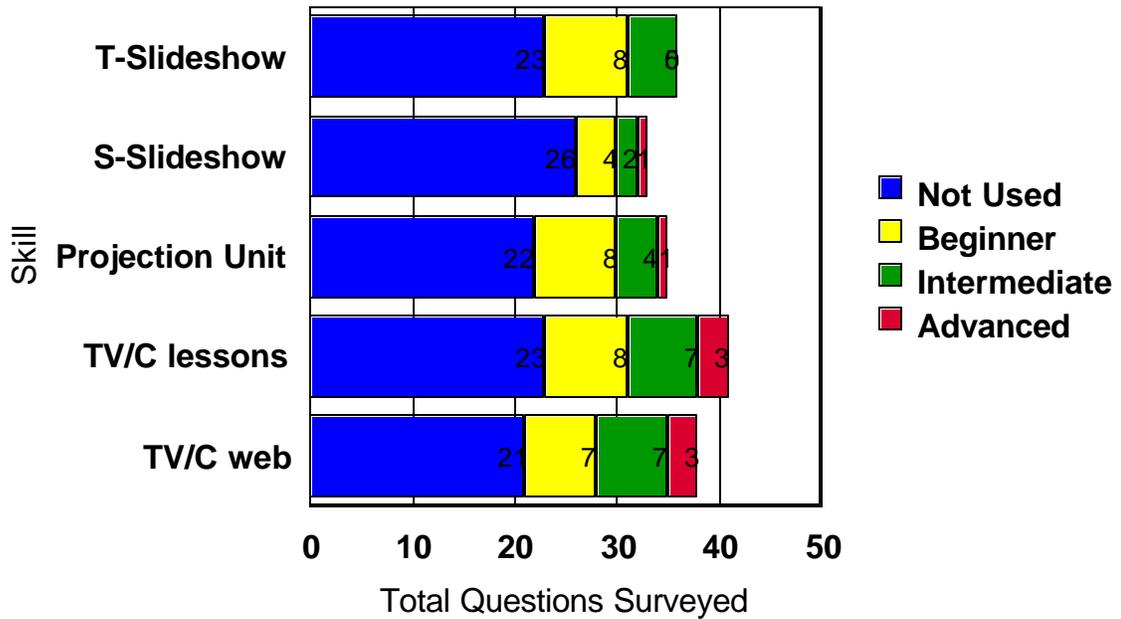
Spreadsheets



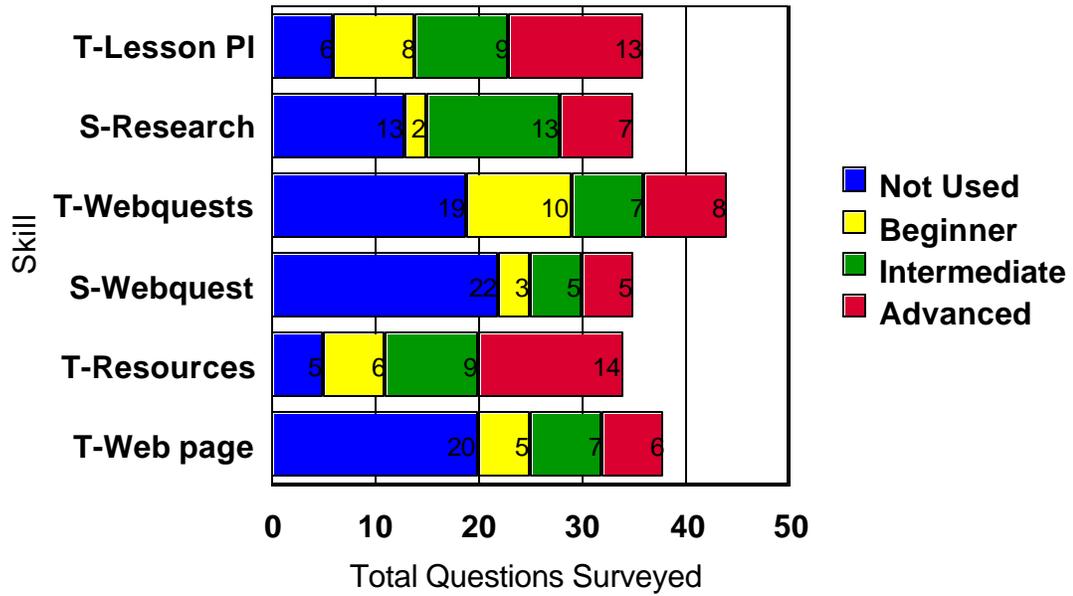
Databases



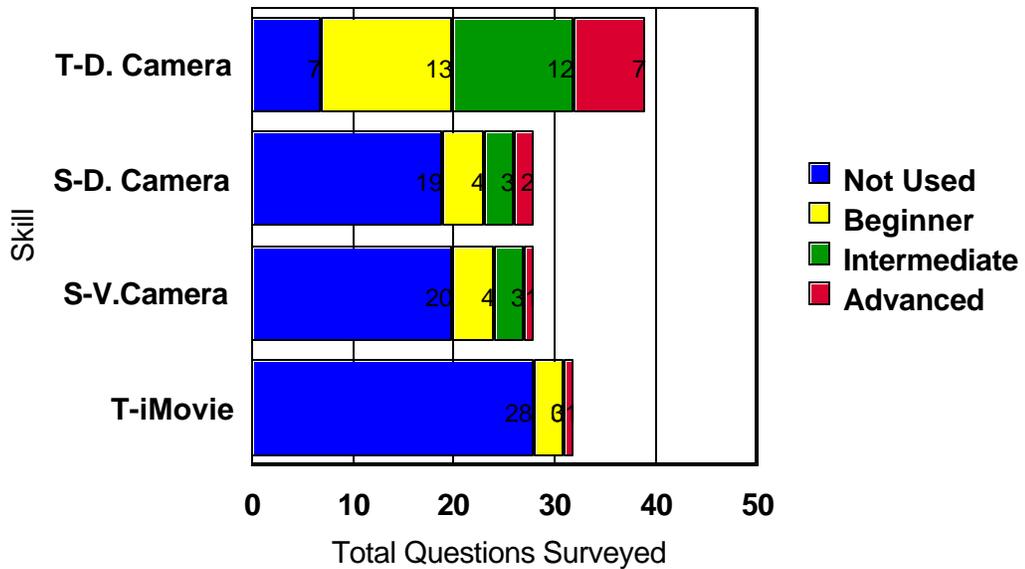
Presentations



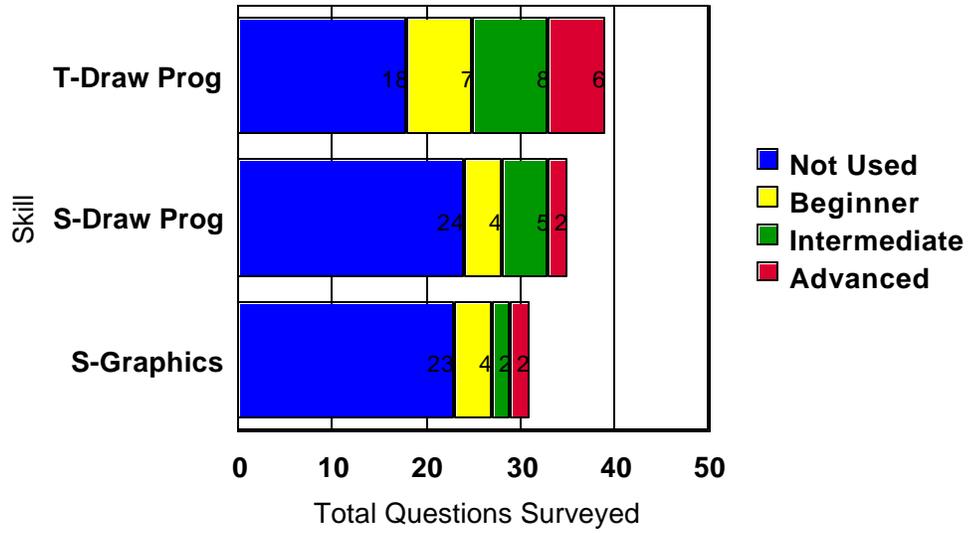
Internet



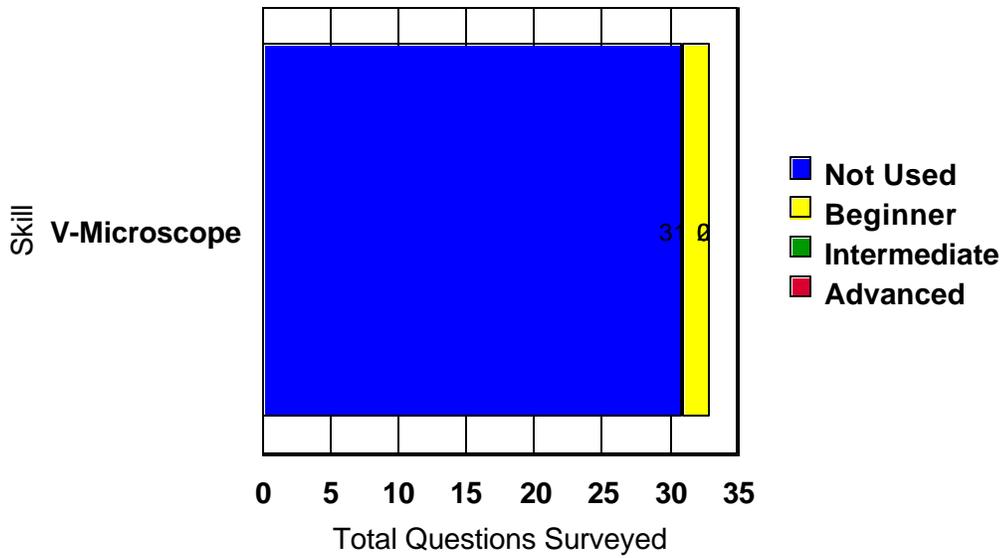
Imaging



Graphics



Video Microscope



Technology Needs Assessment Survey

This survey is being conducted as part of a needs assessment project for a course in Instructional Design at the University of Virginia. The data collected from this survey will be used to inform aspects of the needs assessment project, and may be used later as a springboard to help you, the teacher, incorporate technology into the already existing curriculum.

Please use the scale below to rate the current level of use in your classroom for each item.

Thank you for taking the time to complete this survey.

- 1- Not currently using:** I have not received training in this area.
- 2- Beginner:** I know the basics, but at this time I do not feel comfortable using this skill with students yet.
- 3- Intermediate:** Occasionally, I use this technology in the classroom with my students.
- 4- Advanced:** I am using technology consistently in the classroom with my students.

Word Processing/File Management

		1	2	3	4
1.	I save all teacher documents in my teacher folder.				
2.	I have created folders for each of my students.				
3.	I encourage my students to save their work in a student labeled folder.				
4.	I encourage my students to use word processing in my class.				
5.	I insert graphics in my word processing documents.				
6.	I use the school's network to save my work.				
7.	I use the school's network to access reading comprehension questions.				

Spreadsheets

		1	2	3	4
1.	I use a spreadsheet to create lesson plans, seating chart, grade book, etc				
2.	I encourage my students to use spreadsheets to organize data.				

Databases

		1	2	3	4
1.	I use a database to generate a class list, student info, inventory, etc				
2.	I use mail merge to communicate with parents.				

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Presentations

1 2 3 4

1.	I use AppleWorks Slideshow when I present information to my students.				
2.	I encourage my students to use AppleWorks Slideshow when presenting information.				
3.	I use the school's projection unit for computer presentations.				
4.	I use the TV monitor and the computer to present computer lessons to the class.				
5.	I use the TV monitor and computer to present information to the class from the web.				

Internet

1 2 3 4

1.	I use the internet to locate lesson plans.				
2.	I encourage my students to use the internet to do research.				
3.	I use the internet to locate Webquests.				
4.	I encourage my students to use the internet complete Webquests.				
5.	I use the internet to locate resources for lessons.				
6.	I know how to create a web page.				

Imaging

1 2 3 4

1.	I know how to use the digital camera.				
2.	I encourage my students to use the digital camera for projects.				
3.	I encourage my students to use the video camera for projects.				
4.	I use iMovie for video production.				

Graphics

1 2 3 4

1.	I use the AppleWorks draw program.				
2.	I encourage my students to use the AppleWorks draw program for projects.				
3.	I encourage my students to insert graphics into their word processing documents.				

Curriculum-Specific

1 2 3 4

1.	I use the video-microscope with my students.			
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1. Are you a PC or iMac user?

2. What suggestions would you make that would help support technology integration at Jackson-Via?

3. What issues do you see as barriers to more effective technology integration into your classroom?

4. What is currently in place that supports technology integration into your classroom?

Technology Needs Assessment Survey

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4- Advanced: I am using technology consistently in the classroom with my students.

Word Processing/File Management		1	2	3	4
1.	I save all teacher documents in my teacher folder.	6	7	7	17
2.	I have created folders for each of my students.	19	7	2	5
3.	I encourage my students to save their work in a student labeled folder.	18	6	2	4
4.	I encourage my students to use word processing in my class.	12	6	10	5
5.	I insert graphics in my word processing documents.	12	8	10	7
6.	I use the school's network to save my work.	8	12	2	12
7.	I use the school's network to access reading comprehension questions.	11	8	3	7
		86	54	36	57

Spreadsheets		1	2	3	4
1.	I use a spreadsheet to create lesson plans, seating chart, grade book, etc	15	11	3	6
2.	I encourage my students to use spreadsheets to organize data.	21	9	0	8
		36	20	3	14

Databases		1	2	3	4
1.	I use a database to generate a class list, student info, inventory, etc	12	14	6	5
2.	I use mail merge to communicate with parents.	23	7	1	2
		35	21	7	7

1- Not currently using: I have not received training in this area.

2- Beginner: I know the basics, but at this time I do not feel comfortable using this skill with students yet.

3- Intermediate: Occasionally, I use this technology in the classroom with my students.

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Presentations		1	2	3	4
1.	I use AppleWorks Slideshow when I present information to my students.	23	8	5	0
2.	I encourage my students to use AppleWorks Slideshow when presenting information.	26	4	2	1
3.	I use the school's projection unit for computer presentations.	22	8	4	1
4.	I use the TV monitor and the computer to present computer lessons to the class.	23	8	7	3
5.	I use the TV monitor and computer to present information to the class from the web.	21	7	7	3
		115	35	25	8

Internet		1	2	3	4
1.	I use the internet to locate lesson plans.	6	8	9	13
2.	I encourage my students to use the internet to do research.	13	2	13	7
3.	I use the internet to locate Webquests.	19	10	7	8
4.	I encourage my students to use the internet complete Webquests.	22	3	5	5
5.	I use the internet to locate resources for lessons.	5	6	9	14
6.	I know how to create a web page.	20	5	7	6
		85	34	50	53

Imaging		1	2	3	4
1.	I know how to use the digital camera.	7	13	12	7
2.	I encourage my students to use the digital camera for projects.	19	4	3	2
3.	I encourage my students to use the video camera for projects.	20	4	3	1
4.	I use iMovie for video production.	28	3	0	1
		74	24	6	4

Graphics		1	2	3	4
1.	I use the AppleWorks draw program.	18	7	8	6
2.	I encourage my students to use the AppleWorks draw program for projects.	24	4	5	2
3.	I encourage my students to insert graphics into their word processing documents.	23	4	2	2
		65	15	15	10

Curriculum-Specific		1	2	3	4
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1.	I use the video-microscope with my students.	31	2	0		0
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1. Are you a PC or iMac user?

* More iMac users, but pretty evenly matched.

2. What suggestions would you make that would help support technology integration at Jackson-Via?

These are in order of highest need first:

1. Time to apply technology
2. Full time tech person/ lead tech person
3. Training sessions
4. Hands on modeling of instruction/ apply to real life situations
5. Library and Art integration @ age-appropriate levels
6. "Cheat sheets" for lessons
7. Training for Assistants
8. Willing mentors

3. What issues do you see as barriers to more effective technology integration into your classroom?

These are in order of biggest barrier first:

1. Time, Time, Time!
2. To many other things to teach
3. No practical application
4. Don't know who to go to for tech support
5. Knowledge of use/ not comfortable with computers
6. Not enough computers
7. Age-appropriate activities
8. Security systems

4. What is currently in place that supports technology integration into your classroom?

1. Computer lab
2. Computer in each classroom
3. Clusters of computers in the fourth grade
4. TSIP Training
5. Internet Connection in all classrooms
6. Technology taught in fourth grade
7. Some tech support through central office

8. Enthusiastic support by some

All items are ranked by highest need first.

1. I use the video-microscope with my students.
2. I use iMovie for video production.
3. I encourage my students to use AppleWorks Slideshow when presenting information.
4. I encourage my students to use the AppleWorks draw program for projects.
5. I encourage my students to insert graphics into their word processing documents.
5. I use the TV monitor and the computer to present computer lessons to the class.
5. I use the AppleWorks Slideshow when I present information to my students.
5. I use mail merge to communicate with parents.
6. I use the school's projection unit for computer presentations.
6. I encourage my students to use the internet to complete Webquests.
7. I use the TV monitor and computer to present information to the class from the web.
7. I encourage my students to use spreadsheets to organize data.
8. I encourage my students to use the video camera for projects.
8. I know how to create a web page.
9. I use the internet to locate Webquests.
9. I encourage my students to use the digital camera projects.
9. I have created folders for each of my students.
10. I use the AppleWorks draw program.
10. I encourage my students to save their work in a student labeled folder.
11. I use a spreadsheet to create lesson plans, seating chart, grade book, etc.
12. I encourage my students to use the internet to do research.
13. I encourage my students to use word processing in my class.
13. I insert graphics in my word processing documents.
13. I use a database to generate a class list, student info, inventory, etc.
14. I use the school's network to access reading comprehension questions.
15. I use the school's network to save my work.
16. I know how to use the digital camera.
17. I use the internet to locate lesson plans.
17. I save all teacher documents in my teacher folder.

