Summary of Data: Teacher Technology Needs Assessment

Population Surveyed: Certificated Elementary Classroom Teachers, Certificated Specialists, an MAT student, Riverbend Elementary School, Juneau School District
Number of Respondents: 14
Survey results: Appendix A, Appendix B

Understanding where staff view themselves in terms of their own level of technology use is the first step needed to assist with understanding the technology needs of the building staff. Putting this question first also helped set the expectation that this needs assessment was focused on technology in terms of student learning.

This first step indicates the majority of the teaching staff (78%) feels comfortable with technology and are beginning to make the shift toward project-based, student-designed projects. Six respondents consider themselves at the Adoption Level, five consider themselves at the Adaptation level. Two respondents consider themselves at the Appropriation level and one respondent considers herself at the Transformation level. The McREL Levels of Technology Use was the tool used by respondents in their self-assessment.

These findings correlate with the responses given by teachers regarding how they would like to increase the use of technology. Two respondents would like to increase their use of technology by creating Word documents and databases. Four respondents indicated they would like to create multimedia presentations for their class as well as creating collaborative projects for students. These same respondents self assessed themselves as being at the Adoption or moving toward the Adaptation levels as technology users. Most teachers who evaluated themselves at being in the Adaptation and Appropriation levels indicate they would like to design more curriculum/units that integrate technology and let student use a variety of technology resources to design their own projects. The teacher who considers herself at the Transformation level would like to be able to create more units that integrate multiple content areas.

The diverse responses of training needs can be explained by the very recent addition of one new computer (e-Mac) with a new operating system for each classroom. Most teachers are learning how to operate their new computers at a basic level and navigate through the school network. Two teachers would like more training in e-mail. These two and one other would like more training in internet usage. Five teachers responded they would like basic computer skills training (one specifying OSX). Teachers who have been using their own computers (with OSX) indicate a desire to integrate technology in the classroom, learn about classroom technology management and teaching technology to students. Seven respondents indicated they would like to have more training in specific
software programs. Five teachers would like additional training in teaching technology to students and seven indicated they our like more training to integrate technology into the curriculum. These teachers are viewing technology, not as a separate curriculum strand, but as being a part of all the curriculum.

In order to determine the best delivery method for future training we must understand how the respondents have received training in the past and where they go for assistance. All respondents indicate they used 2 or more methods to learn to use technology. The majority of the respondents indicate they learned technology from peers and were self-taught by experimenting with equipment or software. Ten respondents use 2 or 3 methods to learn to use technology. Four respondents use 4 or more methods.

The respondents all indicated they go to other teachers for help with technology at least some of the time. They also use the building technology assistant at least sometimes. Very few, if any (only one responded ‘sometimes’) view the principal as a resource and only 5 view a district technology person as a resource. Other help resources included friends, students, children, classmates and spouses (each with one response under ‘other’).

Teachers would like to see students using technology as “comfortably as using a pencil”, as one teacher responded. They would like to see students use technology to gather information, create projects, e-mail and do presentations. Teachers should also use technology to reinforce skills and motivate students. They also feel students should use technology in a manner that is productive, meaningful and useful. Consideration is also give to using technology safely.

The largest barriers to integrating technology are time (training and planning), outdated hardware/software and availability of equipment. Primary teachers have difficulty finding age appropriate materials that facilitate technology integration into curricular areas.
Conclusions of Teacher Needs Assessment Survey

In order to plan for the careful integration of technology into education so students can use it as a tool to achieve content area goals we must understand the needs of educators. To understand the needs of educators we must know how teachers perceive their technological expertise, experience, needs and barriers to achieving the technology goals.

While most teachers who responded to this survey view themselves as having some level of expertise in using technology they find themselves as wanting to be the expert “teaching” students how to use technology, as evidenced in the responses in the categories of Training Needs and how they would like to Increase Use of Technology. This could be because of the grade levels at which they teach. The intermediate teachers had more responses that included letting students use various technologies to design their own projects.

Teachers feel comfortable learning from peers. They go to peers most often for help with and to learn about technology. This will be very useful in planning for new learning opportunities given the range of expertise expressed in various areas of technology and the needs expressed to learn more about the available technology.

Addressing the issue of limited time to learn about technology and the limits of equipment will be more difficult issues to address. Once again, the range of expertise in the teaching staff will be useful in attempting to solve these dilemmas.

A useful follow-up survey, or should have been included in this one, would be to see what specific programs individual teachers are adept at using. This would assist greatly in developed an action plan. However, this can easily incorporated into the Action Plan. In this case it is very useful to be familiar with the targeted population. All indications are that one-size-fits-all training sessions would not be an effective or efficient use of time and talent.

Development of training teams with a multifaceted approach to integration of technology into curricular area while simultaneously teaching those who need training in specific software/hardware resources would be an effective and efficient use of time and talent.
Goal: Teachers will work collaboratively with each other and support staff to develop one curricular unit that integrates technology and multiple content areas, thus providing a framework for future use by individual faculty members.

Implications: By participating in a team approach to developing a project involving multiple content areas teachers will be able to plan units that infuse technology, identify when and where they will need additional support in planning and implementation of the units, and self-assess their own training needs (and where to find support).

Timeline: This is a yearlong staff development project that can incorporate training in multiple content and technology opportunities. The administrator and staff of the school will determine specific timelines and tasks.

Step 1: Identify support for plan

- Meet with Building Principal to present plan and determine any barriers to implementation and how to best obtain support from faculty/staff/parents.
  - Develop buy-in plan
    - Staff involvement, Site Council, Parent Group
    - Identify how the Principal will encourage all staff and parental support of plan.
    - Identify available resources, hardware/software
  - Meet with Building Technology Assistant
  - Identify monetary and time support for planning and training

Possibilities include inservice time, release time,

- Develop timelines
  - Identify specific tasks and times for:
    - Implementation of specific Buy-In Plan tasks
    - Identifying areas of expertise
    - Training team development and planning time
    - Planning of training
    - Planning follow-up training, mentoring
    - Meetings to evaluation of unit, make revisions.
  - Follow-up meetings to refine unit design frameworks, creating a ‘generic’ framework for future use.
Step 2: Identify areas of expertise

- Identify outside sources of expertise, staff from other schools, general community
- Develop grade-level teams that include:
  - Administrator
  - Faculty (including at least one literacy specialist, math specialist, special needs educator, classroom teacher who identifies themselves as an experienced with curriculum at specific grade levels, technology, specialty areas such as librarian, music, physical education)
  - Support staff (can be incorporated as the unit develops-to provide training in specific software/hardware/resource allocation)
  - General public where appropriate.

- Meet with teams to:
  - Identify best times for meeting, realizing that most members may be on multiple teams.

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Step 3: Unit Development

- Grade level faculty meet to determine one curricular unit to focus on developing a project for.
  - Identify desired student outcomes in each curricular area.
    The unit project should include considerations for parent involvement and student self-assessment.
- Full team develops an action plan for the team to create the integrated unit, including how they plan to assess the success of the unit in terms of student achievement.
- Full team meets to create Standards based rubrics for each curricular area, leading to a rubric for the overall project.
  - Specialists are to help by providing ideas and training support.
- Team determines how best to develop lesson plans to support project rubric.
- Teams will determine what support teachers will need in terms of software/hardware/logistics training and develop team-level action plans for implementation.
- Teams will determine what support teachers will need to implement lesson plans/project development.
- Administrator will provide team with time/resource allocation as appropriate for planning and training.
- Teams will identify who, within that team, will check in with the classroom teachers (and it may be another classroom teacher, specialist, administrator, whomever is most appropriate) to ascertain if additional support is needed in any area (mentorship)

The timeline for this step requires planning and co-ordination by the administrator and team members. Ideally, grade level meetings and inservice days will be used for the bulk of the planning. Additional time can be provided with release time provided by the administrator as needed for specific tasks.
Step 4: Project Implementation
- The final unit project will be implemented in the classroom.
  - Team meetings will be regularly scheduled during the implementation to review
    the effectiveness of lessons in terms of:
      - Effectiveness of curricular integration
      - Lesson plans
      - Rubric
      - Student involvement/interest
    Changes/refinements may occur at these meetings.

Step 5: Development of Generic Project Framework
- Teams will meet to develop generic frameworks for:
  - Planning an integrated unit, including considerations for identifying
    training and resources needs for faculty.
  - Curricular units that integrate multiple content areas.
These frameworks can also be a multi-team approach at Primary and Intermediate grade levels.

Step 6: Presentation of units/frameworks
- A celebration of project completion will include team presentations unit projects
  complete with analysis the planning process.

The completed frameworks can be housed:
  - On the school web-site
  - In a shared file on the building server
  - By individual teachers
  - Hard and soft copies in the building library.