Evidence-based Practices for Online Teacher Professional Development

Cathy Cavanaugh
Associate Professor of Educational Technology
University of Florida

cathycavanaugh@coe.ufl.edu
Session Objectives

Online professional development (OLPD) addresses the problem of increased demands on decreasing teacher time (Chen, Chen, & Tsai, 2009; Dede, 2006; Russell, Kleiman, Carey, & Douglas, 2009). High-quality, job-embedded OLPD programs take multiple forms embodying:

- community building and sustainability
- ongoing, facilitated support
- application of learning
- reflection on outcomes

The session includes promising, research-based approaches for online professional development, with specific guidelines, recommendations, and examples.
Applications for OLPD

Mentoring novice teachers (Dalgarno & Colgan, 2007).

Online courses and workshops for discrete knowledge and skill acquisition (Guldberg & Pilkington, 2006).

Online professional learning community (Sessums, 2009).

Inquiry into effective teaching practice (Dana & Silva, 2010).
Online workshop for teachers of students with disabilities at Florida Virtual School (Wayer, 2009)

Welcome!
Instructor: Nicola Wayer, M.Ed., NBCT
Email: nwayer@ufl.edu

Orientation to Exceptional Student Education (ESE) for Virtual School Teachers

This course is designed to provide you, as a virtual school teacher, with professional development in understanding and meeting the needs of students with disabilities and special needs in an online course setting. This training will focus on understanding the needs of SEN students as unique learners but will also include information on making your course accessible.

Get started in this course by participating in the Introductions forum.

Course Resources:
- Notes on Getting Started – PLEASE READ!
Example: online workshop

June 7 – June 20
Topic One: Introduction to Special Education – Terminology, The Law, and How It Applies to You

Objectives for this module:
1. Teachers will be able to define common terms relating to special education including IEP, AYP, ADA, and IDEA.
2. Teachers will examine a sample IEP and summarize what it tells them about that student.
3. Teachers will explain how ADA and IDEA apply to them as classroom/virtual school teachers.
4. Teachers will identify questions that they would need to answer about a student based on the current IEP and any additional assessment data.
5. Teachers will identify resources for seeking answers to questions about students’ needs (the student, parents, learning specialists, online resources, etc)

What to expect:
This module is designed to help you become familiar with special education terminology. As you work through this module, you will watch some videos and online multimedia presentations, complete some e-readings and a reflective writing activity, begin your collection of online resources, and take a brief online quiz. Some additional reference documents will be available for you to download.

Resources & Assignments:
- Introduction to Special Education Video
- The Individualized Education Plan & the 504 Plan – Online Presentation
- Learning about IEPs and ESE students in Virtual Schools – e-Readings
- Demystifying Special Education in Virtual Charter Schools – eReading
- Reflective Writing: What you learned about IEPs and 504 plans
- FYI – Special Education Terminology Reference Sheet
- Find Your Own References
Example: online workshop

All participants completed the introductory module and specific modules based on teaching assignments.

The design promoted community building and sustainability with ongoing, facilitated support.

The workshop was flexible to accommodate single participants or groups of varying sizes.
Example: online workshop

Modules were designed with a consistent format.
• Videos or multimedia presentations about the disability
• Readings on how the disability impacts learners and how they are commonly accommodated
• Reflection on how to accommodate students in the disability group
• Discussion forums for exchanging ideas and applying learning
• Listing additional resources
• Supplementary activities
• A culminating activity: modify an existing lesson plan and materials to accommodate a student with a disability, identifying potential problems students might encounter
Example: mentoring novice teachers

UF study of online mentoring of preservice teachers at Florida Virtual School (Kennedy, 2010). Novices benefited from a practical, apprenticeship model that emphasized

(1) Clear and frequent communication with mentor
(2) Learning environments and teacher tools
(3) Course content design
(4) Managing the range of teacher roles
Example: mentoring novice teachers

Recommendations:
• Allow time for this complex learning
• Integrate reflection and analysis to uncover dissonance between new teaching perceptions and prior learning experiences
• Strive for immersion in the actual setting of practice
• Build opportunities for mentors and novices to bond as colleagues so professional passion may be communicated
Example: mentoring novice teachers

Recommendations:

• Suggest structures for mentors to scaffold novices

• Prepare mentors by outlining the content and activities most important in the experience and clarifying messages about the school culture
Example: mentoring novice teachers

- Share a comprehensive mission to further education profession & the advancement of equity in schools and communities
- Commit to innovation and reflection
- Provide structure that allows free and open governance, reflection, and collaboration
- Commit to a school-university culture charged with preparing prospective educators by engaging them actively in school communities
- Encourage teachers to engage in and share results from deliberate investigations of their teaching practice
- Develop reciprocal and diverse work across institutional boundaries for both university and P-12 faculty
- Train all participants by focusing on needs-based professional development
- Delineate roles and responsibilities for all stakeholders involved
- Dedicate and share resources and ensure reward and recognition structures
Example: Online PLC

Online professional learning community: Florida PLC for teacher inquiry coaches (Sessums, 2009), UF Center for School Improvement, http://csi.uflearn.org/

• The site facilitator is the driving force behind activity, "the glue" that connected all participants and actions on the site
• If participants did not respond to the facilitator's prompts, did not supply evidence of what techniques and strategies were working for them in either their own posts or in their comments to one another, then there was no benefit or no knowledge gained by the members
• Participants derived value from observing each others' content
• Learning networks require a leader that serves as a role model for the norms and behaviors defined by the community members
Example: Online PLC

- Facilitators assume roles of community leader, educative mentor, and participatory modeler
- All three roles serve the learning community as a means to create and maintain the conditions that "enable productive and innovative relationships" (Anklam, 2007).
- Participant roles were (1) advice seeker, (2) advice giver, (3) encourager, and (4) eavesdropper
Example: Online PLC

Site Facilitator Actions:
- community establishment
- invitation to post
- modeling community participation
- announcements

Roles:
- community leader
- educative mentor
- participatory modeler

TEACHER PROFESSIONAL DEVELOPMENT

Roles:
- advice seeker
- advice giver
- encourager
- eavesdropper

Coach Actions:
- responding to prompts
- commenting
- peripheral participation
Example: online teacher inquiry

Florida EETT teacher inquiry studies (Dawson, Cavanaugh & Ritzhaupt, 2006-2009)

Teacher inquiry: systematic, intentional study of professional practice (Cochran-Smith & Lytle, 1993; Dana & Silva, 2003; Hubbard & Power, 1993):

(1) defining a question from practice
(2) developing a research plan for data collection
(3) analyzing their collective data in relationship to their question
(4) taking action to implement what was learned
(5) sharing the results of their work with other professionals
Example: online teacher inquiry

In 2010 (year 4 of a 5-year study) in the EETT program,

• OL inquiry teachers worked with 10,000 students.

• Nearly 59% were in rural school settings and

• Over 79% focused on students of lower middle to low socio-economic background

• http://etc.usf.edu/fde/
Example: online teacher inquiry

Inquiry mentors participated in two synchronous training sessions via teleconference by UF online inquiry researchers.

In preparation, mentors reviewed online materials based on “The reflective educator’s guide to classroom research” (Dana & Yendol-Hoppey, 2003). Some mentors organized face-to-face, large group meetings while others met with small groups or used technology to support synchronous meetings in support of around 10 teachers in a school year.
Example: online teacher inquiry

EETT Action Research
Action Research Context - General Questions

Proposal Title: Dawson Example

The action research context area is divided into four sections: 1) General Questions, 2) Hardware Questions, 3) Software Questions and 4) Teaching and Learning Questions.

Please provide information about the context within which your inquiry will take place. Remember, respond to these items based on your inquiry question only.

General Questions

<table>
<thead>
<tr>
<th>Indicate the type of school:</th>
<th>Indicate the type of community:</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Public</td>
<td>○ Urban</td>
</tr>
<tr>
<td>○ Private</td>
<td>○ Rural</td>
</tr>
<tr>
<td>○ Special school</td>
<td>○ Suburban</td>
</tr>
<tr>
<td>○ Charter</td>
<td>○ Mixed</td>
</tr>
<tr>
<td>○ Mixed</td>
<td>○ Other</td>
</tr>
<tr>
<td>○ Other</td>
<td>Please specify:</td>
</tr>
<tr>
<td>Please specify:</td>
<td></td>
</tr>
</tbody>
</table>
Example: inquiry strategies

<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Higher-level instructional feedback</td>
<td>53</td>
<td>15.82</td>
</tr>
<tr>
<td>Integration of subject areas</td>
<td>46</td>
<td>13.73</td>
</tr>
<tr>
<td>Project-based learning</td>
<td>106</td>
<td>31.64</td>
</tr>
<tr>
<td>Higher-level questioning strategies</td>
<td>16</td>
<td>4.78</td>
</tr>
<tr>
<td>Teacher as coach/facilitator</td>
<td>102</td>
<td>30.45</td>
</tr>
<tr>
<td>Parent/community involvement</td>
<td>7</td>
<td>2.09</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>1.49</td>
</tr>
<tr>
<td>Total Inquiries:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example: inquiry outcomes

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions that lead to learning (e.g. Enjoyment, motivation, engagement, on-task behavior, positive school experience, etc.)</td>
<td>107</td>
<td>24.65</td>
</tr>
<tr>
<td>Instructional benefits of using technology (supporting individual differences, providing multimodal instruction, supporting repeated practice, providing instant feedback, use as a data collection device, tool for independent learning, etc.)</td>
<td>96</td>
<td>22.12</td>
</tr>
<tr>
<td>Twenty-first century/information skills (e.g. collaboration, computer skills, work force skills, students as producers, communication skills, leadership, innovation and creativity)</td>
<td>58</td>
<td>13.36</td>
</tr>
<tr>
<td>Student achievement (e.g. higher level thinking skills, retention, transfer, knowledge acquisition, etc.)</td>
<td>102</td>
<td>23.50</td>
</tr>
<tr>
<td>Impact on different learners (e.g. high achieving, low achieving, etc.)</td>
<td>55</td>
<td>12.67</td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
<td>3.69</td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td>434</td>
<td>100</td>
</tr>
</tbody>
</table>
### Example: inquiry implications

<table>
<thead>
<tr>
<th>Implications</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in teaching practices (e.g. teacher becoming a learning partner, enriched teaching, new instructional practices, etc.)</td>
<td>175</td>
<td>53.85</td>
</tr>
<tr>
<td>Teacher leadership (e.g. shared with colleagues and/or other administrators, took leadership role in school, etc.)</td>
<td>19</td>
<td>5.85</td>
</tr>
<tr>
<td>Professional advocacy for technology (e.g. conference presentations, publications, professional development leader, grant writing, etc.)</td>
<td>14</td>
<td>4.31</td>
</tr>
<tr>
<td>Feelings of professionalism (e.g. renewed energy for teaching, etc.)</td>
<td>23</td>
<td>7.08</td>
</tr>
<tr>
<td>Sustainability (interest and plans to pursue technology use, etc.)</td>
<td>82</td>
<td>25.23</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>3.69</td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td>325</td>
<td>100</td>
</tr>
</tbody>
</table>
Example: online inquiry

Recommendations

• Prioritize school-based research
• Support job-embedded PD to empower educators to examine impacts of reforms on student learning
• Provide online tools for community and sharing
• Integrate tools measuring outcomes of technology use into a system of professional development that affords opportunities for longitudinal data collection/analysis to inform statewide and district level improvement plans.
Example: online inquiry

Recommendations:
Focus PD on differentiated instruction to meet diverse learning needs, support synthesis, interpretation and evaluation skills and promote problem solving and creativity.
A comprehensive bibliography for OLPD is located at http://online-educator.pbworks.com/

Cathy Cavanaugh
cathycavanaugh@coe.ufl.edu