Course Syllabus

Title

Principal 2.0: Encouraging and Evaluating Instructional Technology Use

Target Audience

This course is intended for pre-service and in-service school principals for grades K-12.

Prerequisites

To successfully participate and complete assignments in this course, the learner must
- Have past experience using the computer
- Have past experience working with the Internet
- Be familiar with taking an online course

Course Description

As instructional leader of the school, the principal plays an essential role in how educational technology is used to support teaching and learning. Participants will be introduced to different models related to the integration of technology. They will use these models to assess classroom uses of technology and learn strategies for encouraging that use.

Goals

At the end of this course, learners will be able to
- Identify strategies for encouraging the use of technology
- Describe two different models of technology use
- Define and describe their own plan for evaluating classroom uses of technology

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Outline of Content and Assignments

After previewing the documents in the Course Information area, learners will proceed to Course Content to complete the following sessions, working through each session in order.

Throughout the sessions, learners are asked to articulate their ideas in various forms. They are encouraged to reflect on their ideas and experiences in their online journal. The discussions in the discussion forum are designed to allow learners to glean information from other learners' experiences. As a final project, learners will develop their own vision related to both the use of emerging technologies and 21st century skills and then write a reflection paper on the implementation of their vision.

This course is designed to address ISTE's Educational Technology Standards and Performance Indicators for School Administrators. These standards define the fundamental concepts, knowledge, skills, and attitudes for applying technology in educational settings.

This course specifically addresses the following NETS*A components:

2. Digital-Age Learning Culture. Educational Administrators create, promote, and sustain a dynamic, digital-age
learning culture that provides a rigorous, relevant, and engaging education for all students. Educational Administrators:

- a. ensure instructional innovation focused on continuous improvement of digital-age learning
- b. model and promote the frequent and effective use of technology for learning
- c. provide learner-centered environments equipped with technology and learning resources to meet the individual, diverse needs of all learners
- d. ensure effective practice in the study of technology and its infusion across the curriculum
- e. promote and participate in local, national, and global learning communities that stimulate innovation, creativity, and digital-age collaboration

3. Excellence in Professional Practice. Educational Administrators promote an environment of professional learning
and innovation that empowers educators to enhance student learning through the infusion of contemporary technologies and
digital resources. Educational Administrators:

- a. allocate time, resources, and access to ensure ongoing professional growth in technology fluency and integration
- b. facilitate and participate in learning communities that stimulate, nurture, and support administrators, faculty, and staff in the study and use of technology
- c. promote and model effective communication and collaboration among stakeholders using digital-age tools
- d. stay abreast of educational research and emerging trends regarding effective use of technology and encourage evaluation of new technologies for their potential to improve student learning

4. Systemic Improvement. Educational Administrators provide digital-age leadership and management to continuously
improve the organization through the effective use of information and technology resources. Educational Administrators:

- a. lead purposeful change to maximize the achievement of learning goals through the appropriate use of technology and media-rich resources
- b. collaborate to establish metrics, collect and analyze data, interpret results, and share findings to improve staff performance and student learning
- c. recruit and retain highly competent personnel who use technology creatively and proficiently to advance academic and operational goals
- d. establish and leverage strategic partnerships to support systemic improvement
- e. establish and maintain a robust infrastructure for technology including integrated, interoperable technology systems to support management, operations, teaching, and learning

Course Outline

Principal 2.0: Encouraging and Evaluating Instructional Technology Use

As instructional leader of the school, the principal plays an essential role in how educational technology is used to support teaching and learning. Participants will be introduced to different models related to the integration of technology. They will use these models to assess classroom uses of technology and learn strategies for encouraging that use.

Session One: Encouraging Technology Use, Part I: Resources and Training

There is an interesting paradox in educational technology. Just providing access does not guarantee that teachers will use the available technology. However, teachers cannot use technology when they do not have robust access to a wide variety of technologies that can support the teaching and learning in their classrooms. This week, we'll start with an overview of just what is available to the teachers in your school so as we discuss integration in subsequent sessions, you will have a good sense of what resources a teacher might use.

At the end of the session, learners will be able to:
- Describe the technologies available in their schools
- Compare and contrast how different schools address technology proficiency
- Describe their course expectations

Read:
- Encouraging Teacher Technology Use http://www.education-world.com/a_tech/ tech159.shtml
- Range of Use Chart: http://www.metiri.com/Solutions/RangeOfUse.htm

Participate in Online Discussions::
- Forum #1: Introduce yourself to other participants.
- Forum #2: Answer the same questions posed to the people in the article: Are teachers at your school expected to meet certain levels of technology proficiency? What kind of resources do your tech specialists provide? (The Range of Use Chart would be helpful here.) What kind of equipment and training are available to teachers? In other words, how does your school encourage -- or discourage -- staff technology use?

Write in Online Journal:
- Describe your thoughts and feelings as you embark on this class. What uses of technology have you seen in the classroom? What did you think about them? What are you hoping to learn?

Session Two: Encouraging Technology Use, Part II: Best Practices

Before we can talk about evaluation, we have to think about our own beliefs related to how technology should be used to support teaching and learning. What do you think of when someone says "best practices"? What does that look like? Is there any research to support the use of technology? Those are the questions we'll consider this session.

At the end of the session, learners will be able to:
- Summarize and analyze research related to the use of technology
- Describe and discuss best practices related to technology use

Last session, we looked at the different technologies available at your school as well as thinking about ways to encourage teachers to use that technology. Individually, you had

the opportunity to describe and evaluate some of the uses of technology you have seen. During this session, we'll be discussing those uses together. As we move through the last three sessions, we will be looking at different ways of evaluating technology use and it will help us to have some shared understanding of different uses of technology in the classroom. We'll also continue to consider ways to encourage teachers to use technology.

So, right now, stop and think: what's the absolute best use you've ever seen (or implemented yourself) of technology to support learning. Think about the lesson: what was the content? What was the teacher doing? How about the students? Who was using technology? What were they doing with it? You're goingn to be sharing this lesson with your classmates so good detail is important here. Take a minute to jot down a few notes to use when you draft your forum post.

This week's reading considers why technology should be used at all. You'll be browsing a research database dedicated to documenting research related to the benefits of educational technology. Research-based best practices are emphasized in schools and you'll be able to see just what is currently known about using technology.

Then, you'll get a glimpse of how a high school is using technology in many different ways and with your classmates, you'll reflect on what you consider examples of best practices."

Browse:
- The Center fot Research in Technology in Education (CARET): http://caret.iste.org This web site provides access to summaries and reviews of recent research studies related to the use of technology to support teaching and learing. Spend some time browsing the database and read at least one summary in detail. You might want to begin by browsing the questions and answers: http://caret.iste.org/index.cfm?fuseaction=topics

View:
- An Introduction to Technology Integration: http://www.edutopia.org/technology-integration-introduction-video

Participate in Online Discussions:
- Forum #1: Describe, in as much detail as possible, one example of technology use that you have seen. Since we're considering "best practices," pick an example that you would consider as a good example. Describe the content, the technology, and the activities including what the teacher and students were doing. Also provide information about how they were accessing the technology (ie, in the classroom, a computer lab, a cart). Finally, any details about the success of the lesson would be helpful. Then, read at least two of these descriptions and provide your own feedback. What makes them best practices? What might be changed to make better use of technology? From the description, think about what worked what didn't, in your opinion?

Write in Online Journal:
- Describe one study that you read in the database and reflect on its results. What might they mean, if anything, for education? What kind of overall impression did you get of educational technology research?

Session Three: Evaluating Technology Use, Part I: ACOT/LoTI:

If it is important for teachers to use technology in the classroom, then it must be part of the evaluation process. But how do we move from thinking about best practices to enacting

formal evaluation methods. What might an educational technology evaluation tool look like?

At the end of the session, learners will be able to:
- Describe the Apple Classrooms of Tomorrow research and the Levels of Technology Integration scale
- Apply the Levels of Technology Integration (LoTI) to examples of technology use
- Evaluate the LoTI scale

Two models--ACOT/LoTI and TPACK/Activity Types--give us ways to think about how teachers are using technology in relationship to content and pedagogy. We'll spend a week learning about each model. You should be thinking about the example you provided in Session Two and how it would fare under each model. For the final project, you will be asked to consider either that lesson, or another one if you choose, and evaluate it in light of the two diferent models.

This week, we'll begin by learning about the Apple Classrooms of Tomorrow project. This study was conducted in the 1990s and its purpose way to investigate the outcomes when schools along with teachers and students were given access to the best technology available at the time. In addition, teachers participated in professional development in which they learned how to create more student-centered activities. The study produced a well-known continuum that plotted teacher technology use along five levels.

While the ACOT continuum was not intended to be used for evaluation, Dr. Christopher Moersch developed a more evaluative scael as well as a survey called LoTI, the Levels of Technology Integration. Based on their multiple-choice answers to questions related to technology usage and teaching, teachers were assigned a number on the LoTI scale ranging from zero to six. One of this week's readings provides details on the seven LoTi levels. Some schools use the LoTI scale as part of their teacher evaluation process.

View:

- Apple Classrooms of Tomorrow PowerPoint Presentation: File stored at WHRO

Read:

- LoTI: http://loticonnection.com/lotilevels.html
- ACOT Article: http://www.ed.gov/pubs/EdReformStudies/EdTech/west_acot.html

Participate in Online Discussion:

- Forum: #1: Evaluate the evaluation scale. What does the LoTI scale emphasize? In what context is technology use evaluated? Then, USE the evaluation scale: where do you think your school falls, on average, on the LoTI scale? What would have to happen to move teachers further up the continuum?

Write in Online Journal:

- Evaluate your lesson, or another one, using the LoTI scale. If you use a different lesson, please provide a description.

Session Four: Evaluating Technology Use, Part II: TPACK/Activity Types

As we saw last session, the LoTI scale doesn't just evaluate technology use. It focuses more attention on a particular teaching method. Not everyone agrees that technology should only be used with a certain style of teaching. They believe that technology can be used in lots of different ways, from illustrating a lecture to supporting student research. This week, we'll consider a different way to think about evaluating technology use.

At the end of the session, learners will be able to:
- Describe Technological Pedagogical Content Knowledge and Activity Types
- Create and evaluate examples of TPACK
- Apply concept of activity types to examples of technology use

In one of this week's readings, Dr. Judith Harris takes issue with scales like LoTI, suggesting that they are too focused on a constructivist pedagogy to be useful and challenging educational technology experts to "choose their agenda." As you read her thoughts, consider your own agenda. Are you happy if teachers use technology? Or would you really like them to change the way they teach?

A different kind of model--Technological Pedagogical Content Knowledge (TPACK)--focuses attention on teacher knowledge, or what teachers need to know in order to use technology effectively. Teachers, according to Mishra and Koehler (2006), use several different types of individual and overlapping knowledge to make decisions about using technology. You'll learn about these types of knowledge at the TPACK wiki.

Dr. Harris and her colleagues believe that one way to help teacher develop the necessary knowledge for using technology, it is possible to create "activity types," small pieces of instruction that can be supported with technology. At the Activity Types wiki, you can review some of these activities along with the suggestions for using technology.

Read:
- Our Agenda for Technology Integration: It's Time to Choose (Harris, 2005): http://www.citejournal.org/vol5/iss2/editorial/article1.cfm

Browse:
TPACK Wiki: Read at least the main page and review the model: http://www tpack.org

Browse:
- Activity Types Wiki: Choose one subject area to explore and review the Activity Types for that area: http://activitytypes.wmwikis.net

Participate in Online Discussion Forum:
- One way to develop TPACK is to play the TPACK game. Choose a content area, activity type and technology and describe a lesson at a grade level with which you are familiar. Share this in the forum. Comment on two other people's posts. What do you think about their lessons ideas? What might they change?

Session Five: Evaluating Technology Use, Part III: Bringing It All Together

Over the past four sessions, we've gone from encouraging to evaluating technology use. We've practiced with two different types of models for evaluating use and thought about how to develop teachers' knowledge related to the use of technology for teaching and learning. As the course ends, it is time for you to pull together these different pieces into your best thinking at this point on how to both encourage technology use and then how to effectively evaluate that use. Your job this week will be to do some synthesizing to create

your own "model" of evaluation that will communicate what you feel is important to consider as teachers use technology.

At the end of this session, learners will be able to:
- Define and describe their approach to evaluating technology use
- Critique evaluation plans
- Reflect on their learning

This week's reading focuses on teacher evaluation in general. As you consider your own ideas about evaluating technology use, you may find it valuable to think about how it relates to evaluating other parts of a teacher's practice.

Read:
- Excellent Evaluations: http://www.education-world.com/a_admin/admin/ admin400_a.shtml You should read this main article and then explore the five links at the end that provide additional information as well as examples of evaluation forms.

Create and Share Final Project/Participate in Online Discussion Forum:

- Write a letter to your teachers explaining what you will be looking for when you observe them, particularly in terms of their use of technology. Post this to the discussion forum by Thursday evening so your classmates can comment. Please read and comment on at least two letters, focusing on strengths and potential weaknesses.

Write in Your Online Journal:

- Reflect on your learning, focusing particularly on the two models we investigated. Which one resonated with you? Why? How will you use your new knowledge now that the course is ending?

Schedule

It will take about 10 hours to complete this course. Each session has been designed to take approximately two hours. If you find yourself spending several hours more than this in any given session, please contact your facilitator to make sure this is necessary to complete the given assignments.

Requirements

Learners are expected to:
- Complete all assignments
- Maintain an online journal
- Participate and actively engage in discussions with fellow learners while contributing to the social construction of knowledge

- Be self-directed and self-motivated
- Ask for assistance when needed

Materials

Technical Requirements

- Word Processor
- PowerPoint
- Internet
- Email
- Adobe Acrobat Readers
- Windows Media Player or Quicktime

Evaluation

This course is evaluated on a letter grade basis. Continuing Education Units (CEUs) will be given for this class.

Performance Assessment: Your instructor will assess your performance using the following Assessment Rubric. In order to receive credit for this course, you must demonstrate a satisfactory level of competence for the course, which means a C average or better.

A=100-90%
B=89-80%
C=79-70%

You will receive feedback for each week's work, usually in narrative form through email. In addition, you can always go to "Grades" to monitor your progress. If you have questions about your participation, please communicate with your instructor.

Assignment	Unsatisfactory = 1 pt	Satisfactory = 2 pts
Discussion Board	Learner posts only a single entry, with no interaction with other learners' postings evident.	Learner's postings meet the minimum of 3 (one original thread answering the question and two responses to peers) but they do go beyond the required scope or are all posted on the same day.

Online Journal Entries	The learner does not show any indication of having read any of the articles in the session. The entry does not reflect an understanding of the issues addressed in the session.	Although the learner addresses t issues from the session, the entr is lacking in details and depth. T entry shows only a superficial reading of the articles in the session.
	Unsatisfactory = 1 pt	**Satisfactory = 3 pts**
Final Project	Learner's response does not show an understanding of issues related to technology and education. Learner does not give actions to be taken in order to implement the vision. The response does not reference readings from the semester.	Learner's response shows some understanding of issues related t technology and education. Lear gives general actions to be taken order to implement vision. The response references some readir from the semester.