

Curriculum and Instruction

Workshop Proposal Form

Please complete all parts of this form to complete workshop proposal requirements

Presenter's First Name: Jan Presenter's Last Name: McKeown

Presenter's Title or Position: 6th Grade Math Instructor

Department or School: Lefler Middle School

Mailing Address: 1100 S. 48th

City: Lincoln State/Province: NE Zip/Postal Code: 68510

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Would you be interested in submitting a paper based on your proposal for a peer-reviewed publication?

☐ Yes ☒ No

Please indicate if you need any of these audiovisual aids for your presentation (check all that apply)

☒ PowerPoint set-up

☐ DVD player or TV

☒ LCD

☐ Smartboard

☐ Other (Explain)

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Captivating Proposal Title

MIAMI-Mathematics Instruction and Multiple Intelligences

5-6 sentence proposal abstract

Student engagement and differentiation have become hot topics in education as teachers seek to increase achievement for students. Children come to school with diverse backgrounds, experiences, abilities, and learning styles, and teachers must be able to reach each student to create effective learning situations. By considering multiple intelligences during the planning process, teachers can strategically differentiate instruction and draw rich resources from the Internet. This presentation will help teachers identify and share quality Internet resources to differentiate math instruction. Teachers will leave the workshop with a wide variety of suggested Internet resources related to 6th grade math objectives, as well as a plan for creating a data bank of Internet resources categorized by math objective and intelligence.

Identify session topic and relevance for audience

MIAMI-Multiple Intelligences and Mathematics Instruction

Teachers will explore ways to differentiate instruction through activities and methods matched to multiple intelligences and Internet resources.

Which of the three session formats was selected and why

The structure of this workshop is a hybrid between the hands-on model and facilitated discussion. It fits under the hands-on model because teachers will receive information and then use a computer lab to find additional resources. It also fits under facilitated discussion since teachers will share resources and strategies they use to meet math objectives. Teachers will be introduced briefly to multiple intelligences and quality Internet resources before having an opportunity to find additional resources and share their findings with the entire group.

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Describe the intended activities, goals and expected outcomes of the session noting how the activities will help participants achieve those outcomes.

INTASC Standards:

Standard 3: Diverse Learners

The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.

Standard 4: Multiple Instructional Strategies

The teacher understands and uses a variety of instructional strategies to encourage student development of critical thinking, problem solving, and performance skills.

Standard 6: Communication and Technology

The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

District Curriculum Objectives:

Evaluate and Compare Whole Numbers and Exponents

Students will be able to represent numbers and find the value of numbers using exponents

Students will be able to use the order of operations

Write and Evaluate Expressions

Students will be able to identify and evaluate expressions

Students will be able to translate between words and math

Adult Learner Objective: I can identify and use Internet resources to differentiate math instruction and meet the unique learning needs of my students through multiple intelligences.

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Materials/Resources Needed: MIAMI PowerPoint, MIAMI GoogleDocs Spreadsheet, computer lab or laptop computers with Internet connectivity

Anticipatory Set: Math music playing with words projected on screen, such as "PEMDAS Boss" by the Rappin' Mathematician. In table groups discuss how the song could be used in class, Would you use something like this in math class? Why or why not? If you would use the song, how would you incorporate it into a lesson?

Objective/Purpose: Teachers will use multiple intelligences during the planning process to strategically differentiate instruction and draw rich resources from the Internet.

Procedure: 1) Teachers will review six of Howard Gardner's Multiple Intelligences and types of mathematics activities that would support each intelligence (MIAMI ppt)

2) Discuss ways to differentiate instruction by planning with multiple intelligences in mind.

3) Discuss quality Internet resources . Review three sites and take a few minutes with each one to discuss what intelligence it would support, good and bad points, and applications in the classroom.

Check for Understanding: Participants will have time to search the Internet for additional resources. They will find quality Internet resources, determine the intelligence category and add the resource to the MIAMI GoogleDocs Spreadsheet.

Closure: Teachers will share what they found in small groups. Each small group will share one quality resource on a common screen with the rest of the large group. Groups will share how they categorized the site and how they would use the resource instructionally. Review where teachers will be able to find and add to MIAMI on GoogleDocs.

Extension: Invite teachers to continue to add resources to the MIAMI GoogleDocs spreadsheet after the conclusion of the workshop.

Offer additional inservice and opportunities to share/discover sites throughout the year on the remaining 6th grade math objectives.

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Describe the level (novice, intermediate, advanced) for which your session is geared

The session will meet the needs of learners at all levels. Many people have some knowledge about multiple intelligences, however, this workshop is geared specifically towards mathematics instruction. Novice teachers will have the benefit of collegial conversation about effective teaching methods, as well as, additional sources to differentiate specific 6th grade math objectives. The intermediate and advanced teachers will also have the benefit of collegial conversation, a bank of resources related to district math objectives, and an opportunity to search for additional resources on the Internet during workshop time.

Describe aspects of your work that can be applied to all K-12 settings.

All teachers, and their students, benefit from "just right" instruction. Multiple intelligences are not separated by age or grade level, instead by a particular strength or preference. Teachers can differentiate instruction according to multiple intelligence at all grades and in all subject areas. Teachers will practice locating a variety of resources on the Web in mathematics or other subject areas through hands-on exploration and Internet sites recommended by the instructor.

Include links to relevant websites and/or attachments of any materials you intend to use and share during the workshop.

MIAMI PowerPoint

<https://docs.google.com/a/lps.org/presentation/d/1vRYB2Hg9FU7QUwznM5PiufY4qiLwC-dhNR69JVSII8/edit>

MIAMI Resources Google Docs

<https://docs.google.com/spreadsheets/ccc?key=0AktuYW-qjKkodFdnS3FobU1UM0pNRWU3X0ZrZjE5eHc>

MIAMI Note Organizer

<https://docs.google.com/open?id=0B0tuYW-qjKkoUlphUVJvcUFJZ1U>

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Planning Graphic Organizer

<http://www.teach-nology.com/worksheets/graphic/mulint/>

Provide detailed plan for audience participation. How will participants be engaged in a discussion? Include statement on how workshop materials might translate to participants' own contexts and roles?

Workshop participants will be able to apply the information and skills presented in the workshop at the beginning of the school year. This particular workshop is geared towards sixth grade math teachers in Lincoln Public Schools. Differentiation of first quarter math objectives will be supported through finding and categorizing relevant and worthy resources.

In small groups teachers will examine three website examples. After viewing the sites teachers will determine which intelligence the website supports, positive and negative features of the site, applications for students.

Participants search the Internet for resources to differentiate 6th grade district math objectives. They will find quality Internet resources, determine the intelligence category, decide which specific objective is supported by the resource, and add the resource to the MIAMI GoogleDocs Spreadsheet.

Teachers will share the resources they found in small groups of four and discuss how they categorized the resource. Each small group will share one quality resource with the rest of the large group. .

Extension: Invite teachers to continue to add resources to the MIAMI GoogleDocs spreadsheet throughout the year as they find and record high quality resources.

Offer additional inservice and opportunities to share/discover sites, as well as to reflect on the application of Internet resources on remaining 6th grade resources throughout the year.

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List key discussion questions.

How can I differentiate mathematics instruction using multiple intelligences and Internet resources?

How do I decide if a resource fits my instructional purpose?

How can I incorporate multiple intelligences as I plan mathematics instruction?

How can I use the resources to improve my instruction?

How do I use and access GoogleDocs to share and retrieve Internet resources?