

5 e model of instruction

5E Model of Instruction: A Comprehensive Guide for Educators

Author: Dr. Sarah Chen, Professor of Educational Technology and Science Education at the University of California, Berkeley. Dr. Chen has over 20 years of experience researching and implementing inquiry-based learning models, including extensive work with the 5E model of instruction in diverse educational settings.

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Summary: This guide provides a comprehensive overview of the 5E model of instruction - Engage, Explore, Explain, Elaborate, and Evaluate - a proven framework for fostering inquiry-based learning. It details best practices for each phase, common pitfalls to avoid, and offers practical strategies for successful implementation across various subjects and grade levels. The guide emphasizes the importance of creating a student-centered learning environment where active participation and critical thinking are paramount.

Understanding the 5E Model of Instruction

The 5E model of instruction is a constructivist learning cycle designed to facilitate meaningful and lasting learning. It moves beyond traditional lecture-based methods, encouraging active student participation and promoting deeper understanding through inquiry and exploration. The five phases are interconnected and build upon each other to create a cohesive learning experience:

1. **Engage:** This initial phase aims to capture students' attention and pique their curiosity. Effective engagement activities should be relevant to students' prior knowledge and experiences, posing a compelling question or problem that sparks their interest in the topic. This could involve a captivating demonstration, a thought-provoking question, or a real-world scenario.

Best Practices: Use visuals, interactive simulations, or real-life examples. Connect the topic to students' lives and interests. Pose a compelling problem or question.

Common Pitfalls: Overly complex introductions. Failing to connect to prior knowledge. Activities that are not genuinely engaging.

1. **Explore:** The exploration phase encourages hands-on activities and investigations that allow students to actively engage with the concepts being taught. This phase is student-centered, fostering collaboration and encouraging them to discover patterns and relationships through experimentation and observation.

Best Practices: Provide open-ended activities that allow for multiple solutions. Encourage collaboration and peer learning. Provide sufficient time for exploration and discovery.

Common Pitfalls: Insufficient materials or resources. Activities that are too structured or restrictive. Lack of guidance or support.

1. **Explain:** This phase focuses on formalizing the understanding gained during the exploration phase. Students share their findings, discuss their observations, and connect their experiences to the underlying scientific concepts. The teacher plays a crucial role in facilitating this discussion, guiding students toward accurate explanations and clarifying any misconceptions.

Best Practices: Encourage student-led explanations. Use visual aids and models to clarify concepts. Facilitate discussions and address misconceptions.

Common Pitfalls: Teacher-dominated explanations. Failing to address student misconceptions. Rushing through this crucial phase.

1. **Elaborate:** The elaboration phase extends students' understanding by applying their knowledge to new contexts and challenges. This phase could involve designing experiments, solving problems, or creating models to demonstrate their understanding. This phase promotes deeper learning and enhances retention.

Best Practices: Provide opportunities for application in diverse contexts. Encourage creative problem-solving and critical thinking. Offer differentiated activities to cater to diverse learning styles.

Common Pitfalls: Lack of varied activities. Failure to connect to real-world applications. Insufficient time for in-depth exploration.

1. Evaluate: The final phase assesses student understanding of the concepts learned. This isn't just about formal assessments; it includes ongoing formative assessment throughout the learning process. The evaluation should measure both conceptual understanding and procedural skills, providing feedback to inform future instruction.

Best Practices: Use diverse assessment methods (e.g., written tests, presentations, projects). Provide constructive feedback to students. Use assessment data to inform future instruction.

Common Pitfalls: Over-reliance on summative assessments. Failing to provide timely and constructive feedback. Ignoring student learning needs based on assessment data.

Implementing the 5E Model Effectively

Successful implementation of the 5E model of instruction requires careful planning and consideration of several factors:

Clear Learning Objectives: Define specific, measurable, achievable, relevant, and time-bound (SMART) learning objectives before initiating the lesson.

Appropriate Materials and Resources: Ensure access to necessary materials and resources for both teacher and students.

Student-Centered Approach: Create a learning environment that encourages active student participation and collaboration.

Differentiation: Cater to diverse learning styles and needs through differentiated activities and assessments.

Assessment Integration: Incorporate formative assessment throughout the learning process to monitor student progress and adjust instruction accordingly.

Conclusion

The 5E model of instruction offers a powerful framework for creating engaging and effective learning experiences that foster deeper understanding and retention. By carefully planning each phase and addressing potential pitfalls, educators can effectively utilize the 5E model to promote inquiry-based learning and cultivate a student-centered classroom. Consistent application and reflection on the effectiveness of the model are key to its long-term success.

FAQs

1. What is the difference between the 5E model and other instructional models? The 5E model emphasizes inquiry-based learning and student-centered activities, unlike traditional lecture-based methods. It's a cyclical process, fostering deeper understanding through active participation.

1. Can the 5E model be used for all subjects? Yes, the 5E model's flexibility allows adaptation across various subjects, adapting the

engagement and exploration phases to the specific content.

1. How much time should each phase of the 5E model take? The time allocation depends on the complexity of the topic and the grade level. However, it's essential to allow sufficient time for exploration and elaboration.
1. What types of assessments are suitable for the 5E model? Formative assessments (ongoing feedback) and summative assessments (final evaluation) are both important. Consider diverse methods like projects, presentations, and written tests.
1. How can I ensure student engagement in the exploration phase? Offer open-ended activities, encourage collaboration, and provide appropriate scaffolding and support.
1. What if students struggle during the exploration phase? Provide additional support and guidance, perhaps through small group instruction or differentiated activities.
1. How can I effectively incorporate technology into the 5E model? Technology can enhance engagement (interactive simulations), exploration (data collection tools), and explanation (visual aids).
1. How can I adapt the 5E model for online learning? Utilize virtual labs, online simulations, and collaborative platforms to replicate the hands-on aspects of the model.
1. How can I evaluate the effectiveness of my 5E lesson? Analyze student performance on assessments, gather student feedback, and reflect on your teaching strategies.

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CONTRIBUTORS: Aaron Blackwelder Susan D. Blum Arthur Chiaravalli Gary Chu Cathy N. Davidson Laura Gibbs Christina Katopodis Joy Kirr Alfie Kohn Christopher Riesbeck Starr Sackstein Marcus Schultz-Bergin Clarissa Sorensen-Unruh Jesse Stommel John Warner

5 e model of instruction: Explicit Instruction Anita L. Archer, Charles A. Hughes, 2011-02-22 Explicit instruction is systematic, direct, engaging, and success oriented--and has been shown to promote achievement for all students. This highly practical and accessible resource gives special and

general education teachers the tools to implement explicit instruction in any grade level or content area. The authors are leading experts who provide clear guidelines for identifying key concepts, skills, and routines to teach; designing and delivering effective lessons; and giving students opportunities to practice and master new material. Sample lesson plans, lively examples, and reproducible checklists and teacher worksheets enhance the utility of the volume. Purchasers can also download and print the reproducible materials for repeated use. Video clips demonstrating the approach in real classrooms are available at the authors' website: www.explicitinstruction.org. See also related DVDs from Anita Archer: *Golden Principles of Explicit Instruction*; *Active Participation: Getting Them All Engaged, Elementary Level*; and *Active Participation: Getting Them All Engaged, Secondary Level*.

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inaccessible to those of us who are not learning scientists. Your focus on the essence of learning combined with concrete examples of the daily challenges of teaching and clear tactical strategies for faculty to consider is a welcome work. I will recommend this book to all my colleagues. —Catherine M. Casserly, senior partner, The Carnegie Foundation for the Advancement of Teaching As you read about each of the seven basic learning principles in this book, you will find advice that is grounded in learning theory, based on research evidence, relevant to college teaching, and easy to understand. The authors have extensive knowledge and experience in applying the science of learning to college teaching, and they graciously share it with you in this organized and readable book. —From the Foreword by Richard E. Mayer, professor of psychology, University of California, Santa Barbara; coauthor, *e-Learning and the Science of Instruction*; and author, *Multimedia Learning*

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teacher has most of the responsibility) to collaborative learning and, finally, to independent tasks. You'll find out how to use the four components of this approach to help meet critical challenges, including differentiating instruction and making effective use of class time: 1. Focus Lessons: Establishing the lesson's purpose and then modeling your own thinking for students. 2. Guided Instruction: Working with small groups of students who have similar results on performance assessments. 3. Collaborative Learning: Enabling students to discuss and negotiate with one another to create independent work, not simply one project. 4. Independent Tasks: Requiring students to use their previous knowledge to create new and authentic products. The authors explore each component using student dialogues and examples from a variety of disciplines and grade levels. They provide tips and tools for successfully implementing this instructional approach in your own classroom, including checklists for classroom setup and routines, critical questions, real-world lesson plans, and more. No matter what grade level you teach, *Better Learning Through Structured Teaching* is your essential guide to helping students develop and expand their capacity for authentic and long-lasting learning.

5 e model of instruction: The Grouchy Ladybug Eric Carle, 1996-08-16 It's the Grouchy Ladybug's 20th birthday. To celebrate, we are introducing a new, larger format edition with brighter, more colorful pages created from Eric Carle's original artwork using the latest reproduction technology. The Grouchy Ladybug is bigger and brigher, as irascible but irresistable as ever and will surely delight new generations of readers, as well as her devoted fans of all ages. Happy Birthday, Grouchy Ladybug!

5 e model of instruction: The Framework for Teaching Evaluation Instrument, 2013 Edition Charlotte Danielson, 2013 The framework for teaching document is an evolving instrument, but the core concepts and architecture (domains, components, and elements) have remained the same. Major concepts of the Common Core State Standards are included. For example, deep conceptual understanding, the importance of student intellectual engagement, and the precise use of language have always been at the foundation of the Framework for Teaching, but are more clearly articulated in this edition. The language has been tightened to increase ease of use and accuracy in assessment. Many of the enhancements to the Framework are located in the possible examples, rather than in the rubric language or critical attributes for each level of performance.

5 e model of instruction: A Framework for K-12 Science Education National Research Council, Division of Behavioral and Social Sciences and Education, Board on Science Education, Committee on a Conceptual Framework for New K-12 Science Education Standards, 2012-02-28 Science, engineering, and technology permeate nearly every facet of modern life and hold the key to solving many of humanity's most pressing current and future challenges. The United States' position in the global economy is declining, in part because U.S. workers lack fundamental knowledge in these fields. To address the critical issues of U.S. competitiveness and to better prepare the workforce, *A Framework for K-12 Science Education* proposes a new approach to K-12 science education that will capture students' interest and provide them with the necessary foundational knowledge in the field. *A Framework for K-12 Science Education* outlines a broad set of expectations for students in science and engineering in grades K-12. These expectations will inform the development of new standards for K-12 science education and, subsequently, revisions to curriculum, instruction, assessment, and professional development for educators. This book identifies three dimensions that convey the core ideas and practices around which science and engineering education in these grades should be built. These three dimensions are: crosscutting concepts that unify the study of science through their common application across science and engineering; scientific and engineering practices; and disciplinary core ideas in the physical sciences, life sciences, and earth and space sciences and for engineering, technology, and the applications of science. The overarching goal is for all high school graduates to have sufficient knowledge of science and engineering to engage in public discussions on science-related issues, be careful consumers of scientific and technical information, and enter the careers of their choice. *A Framework for K-12 Science Education* is the first step in a process that can inform state-level decisions and achieve a research-grounded basis for improving science

instruction and learning across the country. The book will guide standards developers, teachers, curriculum designers, assessment developers, state and district science administrators, and educators who teach science in informal environments.

5 e model of instruction: Engaging Ideas John C. Bean, 2011-07-20 Learn to design interest-provoking writing and critical thinking activities and incorporate them into your courses in a way that encourages inquiry, exploration, discussion, and debate, with *Engaging Ideas*, a practical nuts-and-bolts guide for teachers from any discipline. Integrating critical thinking with writing-across-the-curriculum approaches, the book shows how teachers from any discipline can incorporate these activities into their courses. This edition features new material dealing with genre and discourse community theory, quantitative/scientific literacy, blended and online learning, and other current issues.

5 e model of instruction: If You Made a Million David M. Schwartz, 1994-11-15 If You Made a Million Have you ever wanted to make a million dollars? Marvelosissimo the Mathematical Magician is ready, willing, and able to explain the nuts and bolts -- as well as the mystery and wonder -- of earning money, investing it, accruing dividends and interest, and watching savings grow. Hey, you never know! An ALA Notable Book A Horn Book Fanfare Selection A School Library Journal Best Book of the Year A Teachers' Choices Selection

5 e model of instruction: *Basic Principles of Curriculum and Instruction* Ralph W. Tyler, 2013-08-09 The acclaimed classic shows educators how to set classroom objectives, select learning experiences, organize instruction, and evaluate progress. In 1949, a small book had a big impact on education. In just over one hundred pages, Ralph W. Tyler presented the concept that curriculum should be dynamic, a program under constant evaluation and revision. Curriculum had always been thought of as a static, set program, and in an era preoccupied with student testing, he offered the innovative idea that teachers and administrators should spend as much time evaluating their plans as they do assessing their students. Since then, *Basic Principles of Curriculum and Instruction* has been a standard reference for anyone working with curriculum development. Although not a strict how-to guide, the book shows how educators can critically approach curriculum planning, studying progress and retooling when needed. Its four sections focus on setting objectives, selecting learning experiences, organizing instruction, and evaluating progress. Readers will come away with a firm understanding of how to formulate educational objectives and how to analyze and adjust their plans so that students meet the objectives. Tyler also explains that curriculum planning is a continuous, cyclical process, an instrument of education that needs to be fine-tuned. This emphasis on thoughtful evaluation has kept *Basic Principles of Curriculum and Instruction* a relevant, trusted companion for over sixty years. And with school districts across the nation working feverishly to align their curriculum with Common Core standards, Tyler's straightforward recommendations are sound and effective tools for educators working to create a curriculum that integrates national objectives with their students' needs. Praise for *Basic Principles of Curriculum and Instruction* "Tyler addresses the essential purposes of teaching in a way that still has relevance for contemporary students of education, and communicates to them how important and timeless the quality of the pupil-teacher interaction actually is." —Times Higher Education (UK)

5 e model of instruction: Community-based Instruction Barbara A. Beakley, Sandy L. Yoder, Lynda L. West, 2003 This guide is intended to provide teachers of student with disabilities with resources, ideas, and procedures in implementing community-based instruction (CBI). The first chapter defines CBI, explains its importance, differentiates CBI from field trips, discusses appropriate CBI participants and stakeholders, and reviews the research on CBI. Chapter 2 focuses on expectations for CBI including expected outcomes, expectations for students, expectations for families, expectations for communities, and how expected outcomes of CBI respond to school reform issues. The following chapter considers procedures for program implementation including 10 steps to utilizing CBI, CBI sites for older students, and necessary resources and support systems. Chapter 4 considers the school and classroom component of CBI such as application of the general curriculum and alternative curriculum approaches and the transition portion of the Individualized

5 e model of instruction: Instruction in Libraries and Information Centers Laura Saunders, Melissa Autumn Wong, 2020 This open access textbook offers a comprehensive introduction to instruction in all types of library and information settings. Designed for students in library instruction courses, the text is also a resource for new and experienced professionals seeking best practices and selected resources to support their instructional practice. Organized around the backward design approach and written by LIS faculty members with expertise in teaching and learning, this book offers clear guidance on writing learning outcomes, designing assessments, and choosing and implementing instructional strategies, framed by clear and accessible explanations of learning theories. The text takes a critical approach to pedagogy and emphasizes inclusive and accessible instruction. Using a theory into practice approach that will move students from learning to praxis, each chapter includes practical examples, activities, and templates to aid readers in developing their own practice and materials.--Publisher's description.

5 e model of instruction: Instructional Rounds in Education Elizabeth A. City, 2009

Instructional Rounds in Education is intended to help education leaders and practitioners develop a shared understanding of what high-quality instruction looks like and what schools and districts need to do to support it. Walk into any school in America and you will see adults who care deeply about their students and are doing the best they can every day to help students learn. But you will also see a high degree of variability among classrooms--much higher than in most other industrialized countries. Today we are asking schools to do something they have never done before--educate all students to high levels--yet we don't know how to do that in every classroom for every child. Inspired by the medical-rounds model used by physicians, the authors have pioneered a new form of professional learning known as instructional rounds networks. Through this process, educators develop a shared practice of observing, discussing, and analyzing learning and teaching.

5 e model of instruction: *Making Content Comprehensible for English Learners* Jana Echevarría, MaryEllen Vogt, Deborah Short, 2017 This book introduces and explains the SIOP® (Sheltered Instruction Observation Protocol) Model, a comprehensive, coherent, research-validated model of sheltered instruction, no implemented in districts throughout all 50 states and in multiple countries and territories. The SIOP Model improves teaching effectiveness and results in academic gains for students.--From the back cover.

0.5% 0.5% 5%

The BSCS 5E Instructional Model - Bates College

instructions as appropriate. Because any instruction can be revised at any of these quarterly meetings, the print edition of the Manual provides only a “snapshot” of the model instructions ...

Effect of Differentiated Instruction and 5E Learning Cycle on ...

differentiated instruction as a possible solution to this challenge and to improve the quality of education provided to students (Tomlinson, 2001). Differentiated instruction (DI) is a teaching ...

ELL Instruct Model 3-22b - ed

3 Language vs. quality of instruction 4 Guiding questions 5 INSTRUCTIONAL MODELS AND PROGRAMS 6 English-only model 6 Structured immersion programs 6 Sheltered instruction ...

The BSCS 5E Instructional Model: Origins and Effectiveness

sufficient for the development of mind. A very important theme in Herbart’s model is the coherence of ideas. That is, each new idea must be related to extant ideas. Said in ...

Middle School Mathematics Classrooms Practice Based on ...

The 5E instructional model (Bybee, 1990) transformed instructional methods generally used for science learning, as was based on experimental activities. However, the model has been used ...

KNOWLEDGE Commonwealth must prove beyond a ...

Instruction 3.140 . 2009 Edition . KNOWLEDGE . KNOWLEDGE ... 100 n.5, 499 N.E.2d 832, 837 n.5 (1986), contrasting Commonwealth v. Palladino, 358 Mass. 28, 30-32, 260 N.E.2d 653, 654 ...

The 5-dimensional model: A tangible framework for ...

accessible and tangible model than the existing ones. The model approaches differentiation through five dimensions, which are 1) teaching arrangements, 2) learning environment, 3) ...

5 E LESSON PLANS - SSL.com

5 E LESSON PLANS DAY 1 Unit Title: Establishing Healthy Relationships Grade: 9 Lesson Duration: 1 hour Date: July 24, 2020 Focus: Reading with Meaning & Enjoyment - (Literature) ...

MODEL CRIMINAL JURY INSTRUCTIONS COMMITTEE

May 16, 2024 · read the multiple-counts instruction: holding that (1) the trial court didn’t abuse its discretion by not telling the jury that it could hang, and (2) the court’s re-reading of the multiple ...

White Paper for 5E+IA Model - acceleratelearning.com

THE 5E+IA MODEL FOR STEMSCOPES: 2.0 CURRICULUM DEVELOPMENT 1 Terry Talley, Ed.D. STEMcoach.com It is the goal of STEMscopes to provide an inquiry-based curriculum, ...

MODEL CRIMINAL JURY INSTRUCTIONS COMMITTEE

Oct 18, 2023 · definitional instruction was required). 3-4:57 FAILURE TO REGISTER AS A SEX OFFENDER (GENERAL) Dorsey v. People, 2023 CO 51, ¶¶ 1-2, ___ P.3d ___ (holding that ...

Effect of 5E Learning Model on Academic Achievement, ...

course processing and provides good reform-based instruction. He also stated that the model could help to develop the curriculum. Senan (2013) reported that the technology-enriched 5E ...

BY ORDER OF THE AIR FORCE INSTRUCTION 10-405 ...

model identified requirements to prescribe universal baseline readiness training. RAT serves as this baseline and institutes a continuum of learning for all Airmen, while being adaptable to ...

MODEL-MODEL PEMBELAJARAN - Penerbit Buku Widina

Model pembelajaran merupakan tingkatan yang tertinggi dalam kerangka pembelajaran, alasannya adalah karena mencakup keseluruhan tingkatan. Lingkupnya yaitu keseluruhan ...

IOWA CRIMINAL JURY INSTRUCTIONS - State Public Defender

Model Jury Instructions. 100 General Instructions . 200 Criminal Law - Special Issues. 300 Accessory After The Fact . 400 Justification. 500 Solicitation been eliminated from most of ...

DOD INSTRUCTION 5000 - Executive Services Directorate

Jan 23, 2020 · Evaluation (DT&E) • Enclosure 5. Operational and Live Fire Test and Evaluation (OT&E and LFT&E) DoDI 5000.89, "Test and Evaluation" Enclosure 6. Life-Cycle Sustainment ...

MANUAL OF MODEL CIVIL JURY INSTRUCTIONS FOR THE ...

SUBCOMMITTEE ON MODEL INTELLECTUAL PROPERTY JURY INSTRUCTIONS EIGHTH CIRCUIT CHAIR: Angela B. Kennedy, Esq. Armstrong Teasdale LLP 7700 Forsyth Boulevard, ...

5-E Model Unit Plan Lesson - BRITTON HIPPLE

instruction through activities, notes, videos, slide presentations allow students to have multiple opportunities to learn. Safety and Class Management Issues As for safety, all work is being ...

Model Criminal Jury Instructions - Michigan Courts

Page 0-i Michigan Model Criminal Jury Instructions Model Criminal Jury Instructions Michigan Supreme Court We are pleased to provide an electronic copy of the criminal jury instructions ...

The long-term effects of introducing the 5E model of ...

The long-term effects of introducing the 5E model of instruction on students' conceptual learning Francesc Garcia I Grau a, Cristina Valls a, Núria Piqué b and Héctor Ruiz-Martín c ...

EIGHTH CIRCUIT MODEL JURY INSTRUCTIONS - United States ...

MODEL CRIMINAL JURY INSTRUCTIONS for the DISTRICT COURTS OF THE EIGHTH CIRCUIT Prepared by ... who objects to any portion of the instructions or to a failure to give a ...

The 5E Model of Instruction - Cloudinary

The 5E Model of Instruction 5E Definition Teacher Behavior Student Behavior Engage • Generate interest • •Access prior knowledge • Connect to past knowledge • Set parameters of the focus • ...

Department of Defense INSTRUCTION - Executive Services ...

Jun 7, 2016 · a. Instruction. This instruction is composed of several volumes, each containing its own purpose. The purpose of the overall instruction, in accordance with the authority in DoD ...

1785-6.1, PLC-5 Programmable Controllers Instruction Set ...

PLC-5 Instruction Set Alphabetical Listing For this Instruction: See Page: For this Instruction: See Page: For this Instruction: See Page: For this Instruction: See Page: ABL 17-51 CMP 3-3 JSR ...

Combining the flipped classroom model with the 5E model ...
model through a sample middle school unit on animal adaptation and natural selection. After that, we further explain features of the 5E model phases with sample student work and handouts ...

MANUAL OF MODEL CRIMINAL JURY INSTRUCTIONS

instructions as appropriate. Because any instruction can be revised at any of these quarterly meetings, the print edition of the Manual provides only a “snapshot” of the model instructions ...

Model Criminal Jury Instructions – Michigan Courts

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arXiv:2303.10475v8 [cs.CL] 25 May 2024

tion on the target task? (§5) (iii) what are popular instruction following datasets and the mainstream evaluation metrics? (§6) (iv) what factors (e.g., model size, task numbers) impact ...

Model Criminal Jury Instructions – Michigan Courts

Page 0-i Michigan Model Criminal Jury Instructions Model Criminal Jury Instructions Michigan Supreme Court We are pleased to provide an electronic copy of the criminal jury instructions ...

MANUAL OF MODEL CIVIL JURY INSTRUCTIONS

This Manual of Model Civil Jury Instructions (“Manual”) has been prepared to help judges communicate more effectively with juries. ... Committee strongly recommends that the online ...

Department of the Army *TRADOC Pamphlet 350-70-12 ...

Interrelationship of interactive multimedia instruction to The Army Training System and ... Distributed learning requirements and resourcing model
23 Figure 3-4. Mobile products ...

5E Lesson Plan – River Center

Oct 5, 2020 · 5E Lesson Plan 2 A watershed is the area of land that guides water through small streams towards a major stream or river. In addition to clouds, oceans, rivers, and land, living ...

INSTRUCTION – ccgedu.net

Dsi t rci t e – m am j l i a s t r e @ p s d s c h o o s l o . r g Ezi l a b e t
hrI v ni e – M c D e r m o t t is an elementary school teacher in Poudre S c
h o oDl si t rci t e – m a e l i m c d e r m o t t @ p s ...

5 E Model Of Instruction

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