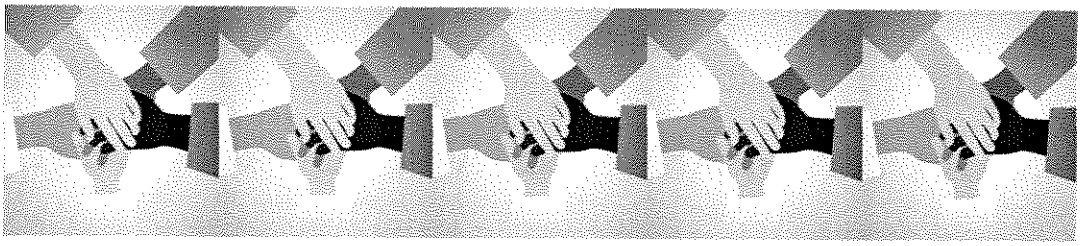


# YPSILANTI COMMUNITY SCHOOLS

## COMMUNITY ADVISORY GROUP RECOMMENDATION

## Instructional Model

# Instructional Model

March 29, 2013

## Executive Summary: Instructional Model

### Recommendations:

1 We recommend the instructional principles in Appendix A be adopted as non-negotiable elements to be evident in high quality instruction.

2 We recommend the endorsement of the rubric in Appendix B to evaluate instructional models. We realize no one instructional model will embrace all principles. Our belief is that good instruction is a combination of models with the instructor knowing the best approach for the expected outcomes and learners.

3 We offer Appendix C as a catalog of instructional models. Attached to each model is a rubric assessing its connection to the instructional principles.

4 We recommend the formation of an ongoing district instruction committee that reviews, selects, and evaluates the effectiveness of district instructional programming.

### Details of Recommendation

This recommendation highlights the 4 key components of "high quality teaching" created by the Summer 2012 Visioning and Design Sessions. Evident in our recommendation is Professional Practice, Community of Learners, Liberated Approach, and Foundations for Success. As a committee we formed our recommendation by 1) defining

components of "highly effective teaching", 2) establishing non-negotiable principles of instruction and teaching 3) researching instructional teaching models, and aligning these models to the non-negotiable instructional principles.

Each teacher in the new district will use the building, grade level or discipline's guiding instructional model rubric, to intentionally evaluate his or her instruction.

**Instructional Principles:** (Appendix A)

- Data driven instruction
- Clear Learning Targets
- Effective use of research
- Real world connections
- Connections to the community
- High expectations
- Safe, healthy and inclusive
- Educational risk taking
- Collaborative classroom culture
- Growth Mindset
- Creativity and critical thinking

## PROCESS:

We held multiple meetings with teachers, administrators, and a parent representative to build a framework to insure effective teaching and instruction. We received feedback from other sub-committees within the Highly Qualified Teachers and Teaching group throughout the process. We utilized edmodo.com and Google docs as a source of communication and collaboration amongst our members.

**The instructional model advisory group used the following process:**

1. Utilized summer 2012 Vision and Design recommendations.
2. Began building a framework about "What makes a teacher effective?" referencing *Simply Better* by Bryan Goodwin.
    a. Highly effective teachers...

i CHALLENGE their students.
ii create POSITIVE CLASSROOM ENVIRONMENTS.
iii are INTENTIONAL about their teaching.

3 Identified what principles fit in, and overlap, each of the 3 defining components of being a highly effective teacher. (Appendix A)
4 Received feedback from other advisory groups and colleagues.
5 Define principles for clear understanding and identified research to support principles, refined principles. (Appendix B)
6 Researched and assessed instructional models with the instructional principles rubric (Appendix C).
7 Developed final recommendation.

## GUIDING PRINCIPLES:

1 **High expectations for ALL learners**. High expectations for all learners is one of our instructional principles.

2 **Evidenced-based "best" practices while allowing for innovation and creativity**.
   a We utilized best practice research in the development of the instructional principles. A list of key documents is included in the reference section.
   b We chose to create our own rubric to assess the connection of instructional models to the instructional principles

3 **Family and community partnerships**. Connections to the community is one of our instructional principles.

4 **Student voice and empowerment.** Student voice and empowerment is woven throughout our instructional principles (Collaborative classroom culture, Growth Mindset, Creativity and critical thinking).

5 **Efficiency and financial viability and stability**. Our recommendation is designed to be used with current and future

instructional models.

## KEY RESEARCH

Framework for Quality Learning, Appendix D: Instructional Models-Teaching Content and Thinking Skills. Available online: http://schoolcenter.k12albemarle.org

Goodwin, Bryan (2011). Simply Better. Doing What Matters Most to Change the Odds For Student Success. ASCD.Alexandria, VA.

Marzano, R. J., Pickering, D. J. & Pollock, J.E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement.* Alexandria, VA: ASCD.

Marzano, R. J., (2007). The Art and Science of Teaching: A Comprehensive Framework for Effective Instruction. ASCD. Alexandria, VA

Routman, Regie, (2012). *Mapping a Pathway to Schoolwide Highly Effective Teaching. Kappan.* February 2010.

## KEY ISSUES, CHALLENGES AND OPPORTUNITIES

- Research done by committee members needs to be honored as we move forward with curricular/instructional decisions.
- Enhance current instructional practices using the instructional rubric (Appendix C).
- Align instruction with common core standards. Evaluate past practices for alignment with instructional principles.
- Create a catalog of current best practices from both districts.
- We should investigate the possibility of an IB elementary school so that students can be prepared for an IB curriculum in the middle years if they choose that route.

- We should begin the process of integrating projects in the elementary curriculum so students develop skills prior to entering one of the secondary options.

## CONSIDERATIONS

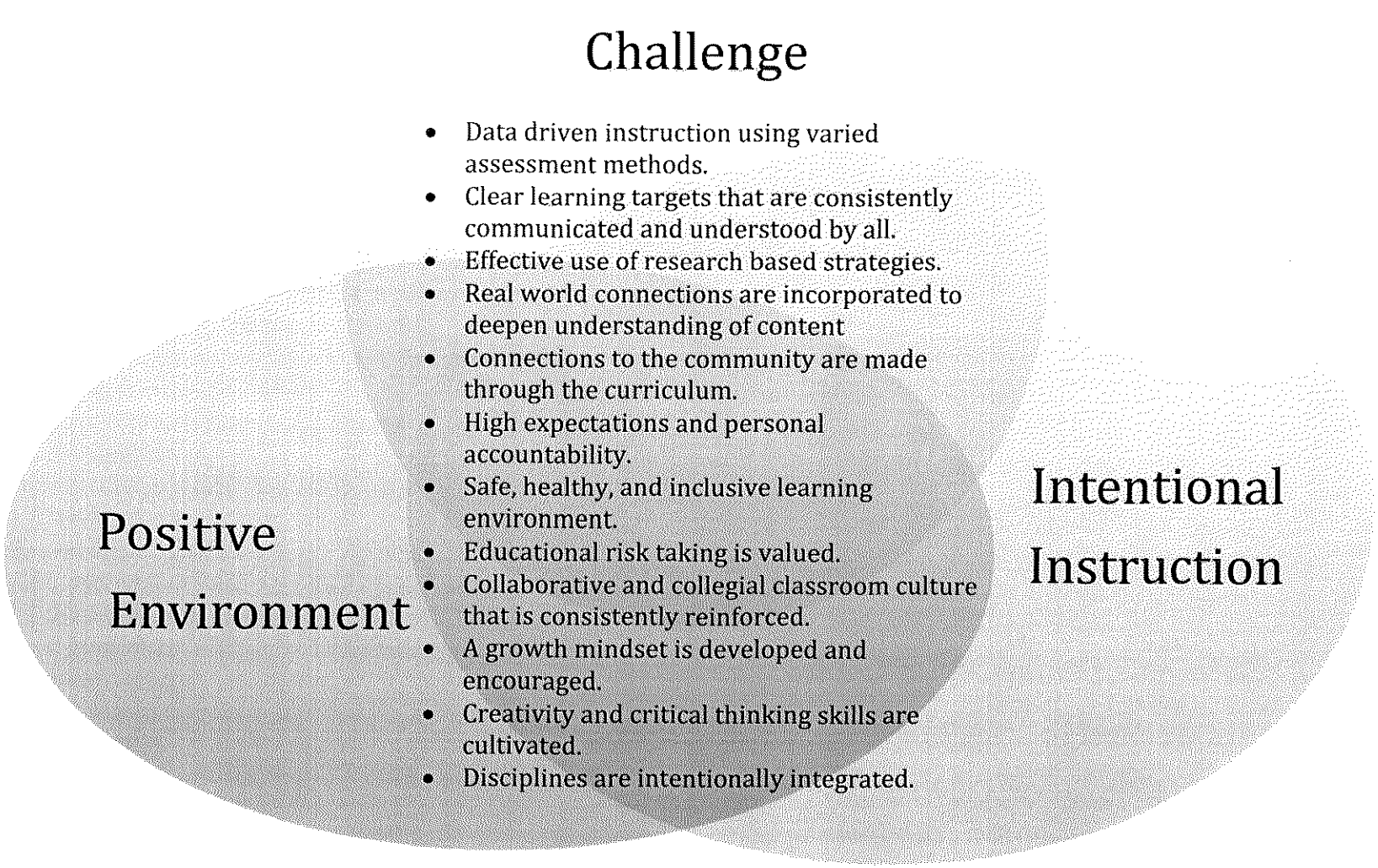
## MEMBERS OF ADVISORY GROUP

| | |
|---|---|
| **Kristen Rickman** | **WR Title 1, Facilitator** |
| **Sandy Riley** | **WISD Consultant, Facilitator** |
| **Sue Smith** | **YPS Educational Quality, Facilitator** |
| Kira Bierman | Parent |
| Cynthia Bowers | WR Teacher |
| Arlene Clark | YPS Educational Quality |
| Susan Fisher | YPS Title I |
| Katherine Fisk | YPS New Tech |
| Sandy Hummel | YPS Teacher |
| Delores Jenkins | WR Administrator |
| Vanessa Neil | WR Teacher |
| Cory Mcelemeel | YPS Administrator |
| Alan McWethy | WR Teacher |
| Tabia Patton | WR Teacher |
| Theresa Perlin | WR Teacher |

| | |
|---|---|
| Matthew Perry | YPS New Tech |
| Tonia Porterfield | YPS New Tech |
| Connie Ray | WR Teacher |
| Robin Reed | Ypsi Teacher |
| Debby Rust | YPS Educational Quality |
| Mark Salzer | YPS Technology |
| Barbara Sartorius | WR Teacher |
| Lynne Stewart-Raglin | YPS Educational Quality |
| Trish Thomas | YPS Teacher |
| Staci Williams | WR Teacher |
| Cathy Winters | YPS Teacher |

Appendix A

# Quality Instruction Diagram



# APPENDIX B

| Principle | Explanation | Research |
|---|---|---|
| Data driven instruction using varied assessment methods. | • Intentional instruction designed around ongoing student assessment<br>• Student assessment should include cyclical summative, formative, and authentic that is timely and specific | Rick Stiggens: http://ati.pearson.com/authors-consultants/rick-stiggins.html |
| Clear learning targets that are consistently communicated and understood by all. | • Clear learning targets are written and discussed in specific student friendly language<br>• Lesson and assessments are directly connected to the targets and effectively communicated to students and families through various forms | Robert Marzano: The Art and Science of Teaching (2007) |
| Safe, healthy, and inclusive learning environment. | • An environment in which students feel emotionally, physically, intellectually, and socially safe, where healthy lifestyle choices are promoted and modeled, and where each member's unique qualities as well as intellectual and cultural contributions are valued | Alice Waters:Edible Schoolyard (2008) |
| Educational risk taking is valued. | • Diligence and perseverance are valued over perfection or intelligence, mistakes are viewed as learning opportunities, and academic comfort levels are challenged | John Seely Brown Teaching for Artistic Behavior http://www.johnseelybrown.com |

| Principle | Explanation | Research |
|---|---|---|
| Collaborative classroom culture that is consistently reinforced. | • A classroom culture in which it is safe to take a risk. Safe to agree/disagree<br>• Mistakes(both academic & social) are an opportunity for growth/learning<br>• Students feel safe to participate without reprisal<br>• Student learning is celebrated<br>• Students/teachers/parents/community working together<br>• Everyone has an opportunity to refine/polish work | Robert Marzano: The Art and Science of Teaching. (2007) Classroom Instruction that Works. (2001) |
| A growth mindset is developed and encouraged. | • A belief in the growth of intellect and talent<br>• Encouraging talk from teacher<br>• Recognize that students learn in different ways<br>• More focus on student growth as opposed to proficiency only<br>• Effort is recognized/celebrated<br>• Focus on student effort | Carol Dweck: Growth Mindset (2007)<br>Carol Dweck- Belief in the growth of intellect and talent<br>Bryan Goodwin: Simply Better (2007)<br>Daniel Pink: Drive: The Surprising Truth About What Motivates Us (2011)<br>John Seely Brown - New Learning Environments for the 21st Century A New Culture of Learning: Cultivating the Imagination for a World of Constant Change (2011) |
| Disciplines are intentionally integrated. | • Incorporate into current standards ideas or concepts from other content areas | Integrated Curriculum, Performance Assessment, and Authentic Learning<br>http://www.parkcce.org/id/3/intgr.html<br>• New Learning Environments for the 21st Century -John Seely Brown<br>http://www.johnseelybrown.com/Change%20article.pdf |

| Principle | Explanation | Research |
|---|---|---|
| Connections to the community are made through the curriculum. | We know this is happening when:<br>• Students are engaged and empowered to problem-solve relevant community issues, including economic development, sustainability, and environmental degradation, social justice, transportation, arts development, and community health.<br>• Students learn civic engagement through real-life experiments that build relationships with community organizations, local government, local business, and local colleges + universities | Service Learning<br>Education Generation: http://educationgeneration.org |
| High expectations and personal accountability | We know this is happening when:<br>• teachers and students challenge themselves with world-class standards, practice critical thinking skills, and value ideas.<br>• teachers and students are actively dialoguing across social identities to address conscious and unconscious bias<br>• teachers and students cooperatively develop a positive learning community by creating a democratically agreed upon social contract that outlines expectations, values, and restorative or natural consequences<br>• students choose to do their best, and to be accepting, kind and work for justice at their schools | "Silent Epidemic Report" (2006)<br>Bryan Goodwin: Simply Better (2007)<br>Daniel Pink: Drive: The Surprising Truth About What Motivates Us (2011) |

| Principle | Explanation | Research |
|---|---|---|
| Creativity and critical thinking skills are cultivated. | **Creativity and Critical Thinking:**<br>• Willingness to take risks, innovate, having strategies for solving problems - being able to analyze and evaluate information to construct and justify conclusions - metacognition - ability to look at issues from various perspective - ability to develop a process to bring ideas to reality - ability to formulate meaningful questions<br><br>**How to cultivate:**<br>• Provide various modes or paths to demonstrate knowledge - providing analytical tasks - compare/contrast - create a culture for risk taking - Build growth mind-set - Constant reflection and analysis of work with comparisons to requirements | • Critical Thinking, What is it and Why it Counts<br>http://www.student.uwa.edu.au/_data/assets/pdf_file/0003/1922502/Critical-Thinking-What-it-is-and-why-it-counts.pdf<br><br>• *Nurturing Creativity in the Classroom*, Beghetto & Kaufman<br>http://www.student.uwa.edu.au/_data/assets/pdf_file/0003/1922502/Critical-Thinking-What-it-is-and-why-it-counts.pdf<br><br>• Creativity and Critical Thinking - edited by Steve Padget<br>http://www.routledge.com/books/details/9780415692830/<br><br>• New Learning Environments for the 21st Century -John Seely Brown<br>http://www.johnseelybrown.com/Change%20article.pdf<br><br>• Mihaly Csikszentmihalyi's 5 stages of creativity<br>http://www.vokeart.org/?p=14&spoke=1<br><br>• 21st century skills: http://www.p21.org/overview/skills-framework<br>http://www.p21.org/overview/skills-framework |

| Principle | Explanation | Research |
|---|---|---|
| Effective use of research based strategies. | • Using the correct strategy at the right time to increase student individual growth<br>• Scaffolding instruction to allow all students the opportunity to access the content to be successful using their learning style | Release of Responsibility Model; Pearson & Gallagher, 1993<br>Marzano 9+1: Marzano, R. J., Pickering, D. J. & Pollock, J.E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement.* Alexandria, VA: ASCD.<br>Working memory: Baddeley, 1992<br>Layered Curriculum:Dr. Kathy Nunley, 2002<br>Making Learning Visible: http://www.makinglearningvisibleresources.org |
| Real world connections are incorporated to deepen understanding of content. | • Students take what they know and how they live to help personalize their learning<br>• Use prior knowledge<br>• Engagement with community to personalize and give purpose to learning<br>• Students build connections between classroom + real world | Service Learning<br>Education Generation: http://educationgeneration.org<br>Project/Problem Based Learning<br>http://www.bie.org<br>www.newtechnetwork.org/<br>John Seely Brown: http://www.johnseelybrown.com |

Appendix C

## Analysis of Instructional Models

| Principle | | Data driven instruction using varied assessment methods | Clear learning targets that are consistently communicated and understood by all | Effective use of research based strategies | Real world connections are incorporated to deepen understanding of content | Connections to the community are made through the curriculum | High expectation and personal accountability | Safe, healthy, and inclusive learning environment | Educational risk taking is valued | Collaborative classroom culture that is consistently reinforced | A growth mindset is developed and encouraged | Creativity and critical thinking skills are cultivated | Disciplines are intentionally integrated | Total of correlation to principles |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | | | | | | | | | | | | | | |
| Prob./Proj. based learning, Inquiry | | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 14 |
| Inductive | | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 17 |
| Integrated/Integrative | | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 18 |
| Social Interaction | | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 18 |
| Concept Development | | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 19 |
| Direct Instruction | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 24 |
| Lecture Discussion | | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1.5 | 2 | 2 | 2 | 22.5 |

Rubric scores: 1) naturally embedded 2) needs intentional focus 3) does not fit

The higher the total, the greater need for intentional focus to ensure highly effective teaching and alignment to the instructional principles.

# Appendix D

## Social Interaction Model

**Summary**: Social interaction models are methods used by teachers to facilitate group work. It is a student centered teaching that allows students to interact with each other in a structured on task manner. In this strategy, students take on the role as a facilitator of content by helping their peers construct meaning. The students are allowed to question, reflect, reconsider, get help and support, and participate in a group discussion. The three most common strategies include group projects, group discussion, and cooperative learning. There are generally three stages to this model - 1) introduction led by the instructor, 2) learners break into groups while the instructor continues to monitor and assess teams and their work, 3) finally, the teams conclude with their results/findings. *This summary was gleaned and paraphrased from this presentation.*

Please check the degree of "fit" you see between your model and the principles below and cite evidence that supports.
1-naturally embedded 2-needs intentional focus 3-does not fit

| 1 | 2 | 3 | Principles | Evidence - See link in above summary |
|---|---|---|---|---|
| | x | | -Data driven instruction using varied assessment methods | |
| | x | | -Clear learning targets that are consistently communicated and understood by all | |
| x | | | -Effective use of research based strategies | Based on student collaboration |
| | x | | -Real world connections are incorporated to deepen understanding of content | |
| | x | | -Connections to the community are made through the curriculum | |
| x | | | -High expectation and personal accountability | Students accountable to their group |
| | x | | -Safe, healthy, and inclusive learning environment | Necessary for collaborative learning |
| x | | | -Educational risk taking is valued | Necessary for collaborative learning and self teaching |
| x | | | -Collaborative classroom culture that is consistently reinforced | This model is centered around collaboration |
| x | | | -A growth mindset is developed and encouraged | Model promotes self and collaborative learning |
| x | | | -Creativity and critical thinking skills are cultivated | Students learning on own and as a group and come up with own results/presentation |
| | x | | -Disciplines are intentionally integrated | |

## Concept Development Model

**Summary**: This model teaches students to make observations, form different types of inferences from these observations, group data on the basis or perceived similarities, then form categories, and labels for the data, producing a conceptual system.

Please check the degree of "fit" you see between your model and the principles below and cite evidence that supports.

1-naturally embedded 2-needs intentional focus 3-does not fit

| 1 | 2 | 3 | Principles | Evidence - See this document |
|---|---|---|---|---|
| | x | | -Data driven instruction using varied assessment methods | |
| | x | | -Clear learning targets that are consistently communicated and understood by all | |
| | | | -Effective use of research based strategies | |
| x | | | -Real world connections are incorporated to deepen understanding of content | Students looking at data to make observations |
| | x | | -Connections to the community are made through the curriculum | |
| x | | | -High expectation and personal accountability | Students develop own observations and theories based on data |
| | x | | -Safe, healthy, and inclusive learning environment | Students develop own theories |
| x | | | -Educational risk taking is valued | Students develop own theories |
| | x | | -Collaborative classroom culture that is consistently reinforced | |
| x | | | -A growth mindset is developed and encouraged | Students develop own theories |
| x | | | -Creativity and critical thinking skills are cultivated | Students develop own theories |
| | x | | -Disciplines are intentionally integrated | |

## Lecture Discussion Model

**Summary:**
An instructional model to help students gain an awareness of organized bodies of knowledge. Discussion can help students connect facts, concepts and generalizations and make relationships explicit. Lectures are time efficient and can be applied to any content area but student engagement is key to making this model effective and it doesn't allow for practice and application.

Please check the degree of "fit" you see between your model and the principles below and cite evidence that supports.
1-naturally embedded 2-needs intentional focus 3-does not fit

| 1 | 2 | 3 | Principles | Evidence |
|---|---|---|---|---|
| | x | | -Data driven instruction using varied assessment methods | |
| | x | | -Clear learning targets that are consistently communicated and understood by all | |
| | x | | -Effective use of research based strategies | discussion part can model and develop critical thinking skills |
| | x | | -Real world connections are incorporated to deepen understanding of content | |
| | x | | -Connections to the community are made through the curriculum | |
| | x | | -High expectations and personal accountability | |
| | x | | -Safe, healthy, and inclusive learning environment | |
| | x | | -Educational risk taking is valued | |
| | x | | -Collaborative classroom culture that is consistently reinforced | |
| | x | | -A growth mindset is developed and encouraged | |
| | x | | -Creativity and critical thinking skills are cultivated | |
| | x | | -Disciplines are intentionally integrated | |

## Problem-Based Learning, Project-Based Learning, Inquiry Learning

**Summary:**
These models use focused experiential learning organized around the investigation and resolution of real-world problems or topics. They engage students as stakeholders immersed in a messy, ill-structured, problematic situation or topic. Solving the holistic problem or investigating the topic organizes curriculum around the problem/topic, enabling student learning in relevant and connected ways. These models create a learning environment in which teachers coach student thinking and guide student inquiry, facilitating learning toward deeper levels of understanding while entering the inquiry as a co-investigator.
Problem/Project- Based Learning and Inquiry Learning increase student motivation, make learning relevant to the real world, promotes higher order thinking, and encourages learning how to learn.

Please check the degree of "fit" you see between your model and the principles below and cite evidence that supports.
1-naturally embedded 2-needs intentional focus 3-does not fit

| 1 | 2 | 3 | Principles | Evidence/Comments |
|---|---|---|---|---|
| X | | | -Data driven instruction using varied assessment methods | Performance assessment based |
| X | | | -Clear learning targets that are consistently communicated and understood by all | Some learning is unintentional, but valuable, nonetheless. |
| X | | | -Effective use of research based strategies | Higher order thinking, problem-solving, application |
| X | | | -Real world connections are incorporated to deepen understanding of content | Problems or topics are taken directly from real-world connections. |
| | X | | -Connections to the community are made through the curriculum | |
| X | | | -High expectation and personal accountability | Self-evaluation and reflection are components of the model. |
| | X | | -Safe, healthy, and inclusive learning environment | |
| X | | | -Educational risk taking is valued | Solving the problem or creating a project that reflects understanding of the topic requires risk taking. |
| X | | | -Collaborative classroom culture that is consistently reinforced | Work is almost always done in small groups. |
| X | | | -A growth mindset is developed and encouraged | |
| X | | | -Creativity and critical thinking skills are cultivated | The work requires the use of creativity and critical thinking skills in order to solve the problem or understand the topic. |
| X | | | -Disciplines are intentionally integrated | Learning is cross-curricular and subjects are integrated into the solving of the problem or creation of the project. |

Notes:

## **Integrated Model** (this is similar to but not the same as Integrative)

Summary:Students make/find connections across disciplines, Explores questions that are relevant and ignore discipline boundaries, concerned with enhancing personal and social integration, developed around problems or issues, identified by educators and students without respect to subject. Look at "Big Picture" Holistic, Student centered, meaningful connections, match needs of students to curriculum. Examples: In math, science, art, social studies we look for patterns. In each class we focus on patterns in the subject areas and make meaningful connections with the students. OR If you are studying fractions you talk about decimals then money and grades.

Fig.1: Integrated Curriculum and Teaching-Learning Continuum
**Level 1:** Integration through correlation between subjects
**Level 2:** Integration through common themes and ideas
**Level 3:**Integration through the practical resolution of issues and problems
**Level 4:** Integration through student-centered inquiry

---

Please check the degree of "fit" you see between your model and the principles below and cite evidence that supports.
1-naturally embedded 2-needs intentional focus 3-does not fit

| 1 | 2 | 3 | Principles | Evidence |
|---|---|---|---|---|
| | x | | -Data driven instruction using varied assessment methods | |
| | x | | -Clear learning targets that are consistently communicated and understood by all | |
| x | | | -Effective use of research based strategies | "the brain organizes new knowledge on the basis of previous experiences and the meaning that has developed from those experiences holistic experiences are recalled quickly and easily. |
| x | | | -Real world connections are incorporated to deepen understanding of content | "...focus on comprehensive life problems or broad based areas of study that brings together the various segments of the curriculum into meaningful associations" "combines several school subjects into one active project since that is how children encounter subjects in the real world" |
| | x | | -Connections to the community are made through the curriculum | |
| | x | | -High expectation and personal accountability | |
| | x | | -Safe, healthy, and inclusive learning environment | |
| x | | | -Educational risk taking is valued | |
| x | | | -Collaborative classroom culture that is consistently reinforced | |
| | x | | -A growth mindset is developed and encouraged | |
| x | | | -Creativity and critical thinking skills are cultivated | |
| x | | | -Disciplines are intentionally integrated | This is the nature of the model |

# Inductive Model

Summary:
*Inductive Model*
In the Inductive Model, students use information that illustrates concepts to search for relationships that lead to uncovering of principles, generalizations, and rules, thus allowing students to acquire a deep understanding of those concepts. Illustrations may include concrete materials, pictures, models, case students, simulations, and role play. The Inductive Model is grounded in the view that learners construct their own understanding of the world rather than recording it in an already-organized form.

---

Teachers role to provide examples ,
Concepts and themes,
Discovery teaching and inquiry base are associate with it,
Teachers provide content and students research, present (similar to scientific method)

- Students are provided with the content of what they are studying....example, explore, create, present
  - 1 Identify what you are studying
  - 2 Collect and Present the Data (organizer)
  - 3. Examine (create an idea based on the learning experience and create a hypothesis)
  - 4. To Create Themes (4) Producing hypostheses - The questions are refined and presented as hypotheses that are to be tested.
  - (5) Verifying the concepts gathered - This is done by testing the hypothesis created by simply applying past schema, the students will be able to check the appropriateness of the hypothesis that they made.
  - (6) Utilization of the concepts learned - After the acquisition of new knowledge the students are given concrete opportunities to apply it

- Source

The end results are not provided to the student
Rubric on following page

## Inductive Model continued

Please check the degree of "fit" you see between your model and the principles below and cite evidence that supports.
1-naturally embedded 2-needs intentional focus 3-does not fit

| 1 | 2 | 3 | Principles | Evidence |
|---|---|---|---|---|
| | X | | -Data driven instruction using varied assessment methods | The assessment seems to come at the end and it based on their ability to use the new knowledge by proving the hypothesis. If not proven, they need to start again. |
| X | | | -Clear learning targets that are consistently communicated and understood by all | Steps are provided for the process and students know what to do at each point. |
| X | | | -Effective use of research based strategies | Use a scientific principle of "Hypothesis" to engage students to drive their own learning through inquiry |
| X | | | -Real world connections are incorporated to deepen understanding of content | This correlates with step 3 |
| | X | | -Connections to the community are made through the curriculum | The could happen if it was purposely planned in the lesson |
| X | | | -High expectation and personal accountability | Throughout the six steps and a valid result to substantiate the theory, learning, validation, and report |
| | X | | -Safe, healthy, and inclusive learning environment | If it is intentional |
| X | | | -Educational risk taking is valued | If the student is incorrect then they reevaluate and start with another hypothesis |
| | X | | -Collaborative classroom culture that is consistently reinforced | This would depend on if this was presented as an individual or group model |
| X | | | -A growth mindset is developed and encouraged | This is shown by the student receiving intrinsic rewards as they are correct in the hypothesis. (The Ah ha moment of the work paid off) |
| X | | | -Creativity and critical thinking skills are cultivated | This is embedded in the model |
| | X | | -Disciplines are intentionally integrated | This model could be used with all disciplines.<br>This would have to be intentional |

Note: Students retain the knowledge longer by using this type of process.
Dr. Debra Ball - UM Math Lab, Math Discussions

## Direct Instruction Model

**Summary: Active teacher-led introduction with student interaction encouraged throughout introduction/anticipatory set. Focus is on concepts and skills. The teacher structures the lessons, provides explanations when needed, provides students with constant feedback. Control of learning gradually shifts from teacher to learners.**

Please check the degree of "fit" you see between your model and the principles below and cite evidence that supports.
1-naturally embedded 2-needs intentional focus 3-does not fit

| 1 | 2 | 3 | Principles | Evidence |
|---|---|---|---|---|
| | x | | -Data driven instruction using varied assessment methods | Formative assessment throughout, summative at end. |
| x | | | -Clear learning targets that are consistently communicated and understood by all | Objectives are always clearly stated. Madeline Hunter model/theory. |
| | x | | -Effective use of research based strategies | Teacher would have to intentionally scaffold according to needs. Research suggests that direct, teacher-led instructional approaches work best when the purpose is to introduce *new knowledge* to students. (Bryan Goodwyn, Simply Better, 2011) |
| | x | | -Real world connections are incorporated to deepen understanding of content | Not embedded, must be done intentionally. |
| | x | | -Connections to the community are made through the curriculum | Not embedded, must be done intentionally. |
| | x | | -High expectation and personal accountability | |
| | x | | -Safe, healthy, and inclusive learning environment | |
| | x | | -Educational risk taking is valued | Through class/group discussions primarily |
| x | x | | -Collaborative classroom culture that is consistently reinforced | Through class/group discussions primarily |
| | x | | -A growth mindset is developed and encouraged | Dependent upon the teacher. |
| | x | | -Creativity and critical thinking skills are cultivated | Dependent upon the teacher. |
| | x | | -Disciplines are intentionally integrated | |