



ENGAGE!

User Guide

A Middle School Career Development Curriculum

A project based course designed to help middle school students explore career options using the Nebraska Career Education Model and understand the Nebraska Career Readiness Standards.



It is the policy of the Nebraska Department of Education not to discriminate on the basis of sex, disability, race, color, religion, marital status, age, national origin, or genetic information in its educational programs, admission policies, employment, or other agency programs.

This project was funded through the Strengthening Career and Technical Education for the 21st Century Act (Perkins V), administered through the Nebraska Department of Education. However, the contents do not necessarily represent the policy of the United States Department of Education, and you should not assume endorsement by the Federal Government.

Table of Contents

<i>Topics</i>	<i>Page</i>
<i>Introduction to ENGAGE!</i>	2
<i>Outcomes from the ENGAGE! Experience</i>	3
<i>Understanding the design of ENGAGE!</i>	4
<i>Ideas for implementing ENGAGE!</i>	8
<i>ENGAGE! Meets standards for Nebraska Career Readiness Standards</i>	9
<i>A Strong Foundation: Models Used in Building ENGAGE!</i>	12

Hello! Allow Us to Introduce You to ENGAGE!

ENGAGE! is a comprehensive, middle school career planning curriculum. The impetus behind developing this resource is simple – we searched for a career planning curriculum to effectively guide adolescents in exploring their future and we couldn't find one that satisfied us.

- Most encourage adolescents to explore specific occupations or jobs rather than careers.
- Most are a mile-wide and an inch deep in content coverage.
- Most are designed using behavioral models of teaching developed in the 1950s.
- Most are tied to only one career planning and interest inventory system.

We believed there was room for a better alternative, so we developed the **ENGAGE!** curriculum by using our collective knowledge and experience in career and technical education and the learning sciences. The following set of beliefs represents the essence of **ENGAGE!**

Belief #1 – Grow Independence. Developmental research establishes adolescence, particularly in grades 7-9, as an important transitional time marked by increasing levels of independence from caretakers. An effective career exploration intervention should provide guidance to adolescents so that they can responsibly navigate this developmental period.

Belief #2 – Make School Relevant. Research on students' motivation in achievement contexts demonstrates that middle school represents a period marked by decreasing levels of effort, persistence, and enjoyment in school-related pursuits. This trend is believed to be in part due to students not seeing school as relevant to their future. Effective career exploration programs should facilitate student discovery of connections between schooling and their desired future.

Belief #3 – Use Effective Instruction. Thinking about effective instruction has changed. Today, research on learning and instruction has shown that learning is less about transmission and more about engaging students in a transformational process. An effective career exploration program should be delivered in a way that truly engages all learners and is based upon current, well-demonstrated transformational theories of learning.

Belief #4 – Develop Career Readiness Skills. Globalization and technology innovation have spurred our society toward an information-based economy. In this age, our students will work for organizations that value such traits as autonomy with accountability, shared decision making, initiative, diversity, and innovation. An effective career exploration intervention should spur the development of skills necessary to function and thrive in an information age.

Belief #5 – Be Effective, Not Just Thorough. While there are a large number of issues and topics that *can* be discussed during a career exploration curriculum, that doesn't necessarily mean they *should* be addressed. Research that describes effective instruction and learning makes a strong case for depth on a few core topics rather than breadth on a wide variety of topics. An effective career exploration intervention identifies the few core topics that, when explored in depth, lead to meaningful and lasting learning.

There they are; our beliefs about an *effective* and *complete* career exploration curriculum to be used with middle school students. If you buy into our beliefs, then we encourage you to read on...

Outcomes of the ENGAGE! Experience

What will students walk away with from the *ENGAGE!* experience? The following items represent four broad objectives for students who connect with this curriculum. These items specify key threads that are woven throughout the entire curriculum.

1. ***Describe the nature of work in the “real-world.”***

ENGAGE!...

- *introduces students to a wide scope of career opportunities using career clusters.*
- *challenges typical stereotypes regarding what counts as a “respected career.”*
- *encourages students to consider “what will be” while exploring careers in a rapidly changing world.*
- *paints a clear picture of the opportunities in a 21st century information age.*

2. ***Answer the question: “How do I get to a future career from where I’m at today?”***

ENGAGE!...

- *encourages career exploration in a general sense, rather than studying specific job types.*
- *is designed to demonstrate that one type of career may be accessible through multiple clusters.*
- *encourages students to consider, “How can I apply unique interests, passions, and aptitudes?”*
- *challenges students to consider multiple factors as they consider career choices.*
- *exposes the relationship between choices the student makes now and future career plans.*
- *engages students in creating an initial 6-8 year career plan and a portfolio of work.*

3. ***Demonstrate career readiness skills.***

ENGAGE!...

- *encourages real-time practice of the Nebraska Career Readiness Skills so that students may leave with enhanced confidence and valuable experience from which they may draw upon in the future.*
- *structures opportunities to receive feedback and self-assess progress as they develop key employability skills such as teamwork, problem solving, responsibility, communication, and creativity.*

4. ***Demonstrate actions that signify a sense of personal responsibility for career preparation.***

ENGAGE!...

- *encourages students to take personal responsibility for the choices they make today.*
- *challenges students to be proactive as they make a shift from dependence to independence.*

Understanding the Design of ENGAGE!

To bring students a unique, instructionally sound, and engaging experience, *ENGAGE!* draws upon a unique design. This section provides a short guide regarding the design of the curriculum. By reading this section, you'll become more familiar with the language of *ENGAGE!*. The best part about the design shown here is that it is *all* built into the plans and materials provided. You simply turn the key and with minimal preparation you're able to implement effective instruction!

How is the content organized?

The content is organized into themes, essential questions, and related concepts. Let's take a look at each of those pieces and how they fit together to form a basis for the curriculum content.

A light blue oval with a subtle drop shadow, containing the text "Primary Themes".


Primary Themes

A **primary theme** describes a set of related issues, decisions, and options the student will encounter as they begin planning for their future career. There are three themes integrated into this course:

Making It My Choice

A World of Options

Charting a Direction

A light blue oval with a subtle drop shadow, containing the text "Essential Questions".

Essential Questions

Essential questions guide students' inquiry within the three primary themes. In an inquiry-based curriculum, these questions serve as guides for the key topics addressed throughout the course. The essential questions addressed, by primary theme, are:

Making It My Choice

- How do I take ownership of my future?
- How do decisions I make today directly influence my future?
- How do I start career planning now?
- Why must I grow and develop college and career ready skills?

A World of Options

- What are my options in the world of careers?
- How are trends and issues changing the world of careers?

Charting a Direction

- What does it mean to be career-ready?
- What is the right career path for me?
- How will my choices today affect my future?

Key Concepts

Key concepts guide students as they answer the essential questions. The concepts make answering such large questions manageable. Through planned, purposeful instruction students develop an initial understanding of each concept. Carefully designed projects allow students to apply and integrate the concepts into their personal career exploration. A listing of key concepts addressed, by essential question, may be located at the beginning of each unit guide within the curriculum.

How is the course organized?

ENGAGE! makes the content accessible to students through a series of carefully organized elements. There are two basic building blocks of the ENGAGE! course – *sessions and units*.

Element	Description
Session	A session is a 50-minute class period. This is the most basic building block of the ENGAGE! curriculum.
Unit	A unit is a collection of related sessions. Units are designed to accomplish a specific instructional purpose - to <i>introduce</i> , to <i>instruct</i> , or to <i>integrate</i> .

The units included in the ENGAGE! curriculum can be described according to their instructional focus. Some units *introduce*, others focus on *instruction*, and others foster *integration*.

Focus	Units Included	Description
Introduce	Course Introduction Unit	The course introduction is a short series of sessions in which students are introduced to the key themes and essential questions into which they will inquire throughout the course. The course introduction is highly interactive and experiential.
Instruct	Primary Theme Units	There are three units designed to provide planned, purposeful instruction and learning activities around each of the course's primary themes. During the sequence, students are <i>introduced</i> to the essential questions, <i>experience</i> the key concepts, and then <i>demonstrate</i> their understanding of the content through construction of a meaningful project.
Integrate	Course Capstone Unit	The course capstone unit is provided at the end of the course to allow for students to reflect upon and integrate all of the concepts discussed. The course capstone unit engages students in designing and implementing both a <i>group</i> and an <i>individual</i> project related to career exploration.

Inside the Instructional Units

The three “instructional” units provide students with experiences to encourage internalization of the knowledge, skill, and attitude necessary for successful career exploration. Instructional activities within instructional units are organized into three phases – *introduce*, *experience*, and *demonstrate*. The model balances engaging whole-class instruction with self-directed and differentiated learning techniques.

Phase	Approaches Used	Description
<i>Introduce</i>	Unit Introduction Session	Students are guided through one or two sessions as an orientation to the unit. Learning activities engage students in calling forward prior experiences with the unit’s essential questions.
<i>Experience</i>	Guided Instruction Session	Students are guided in an inquiry into the unit’s essential questions through engaging, whole-class instructional activities and techniques.
	Self-Directed Learning Session	Students continue inquiry into the essential questions through self-directed experiences called “Learning Expeditions.” Teachers use criteria to track and coach students’ progress.
	Learning Expeditions	An experience that engages students in elaborating upon and integrating the key concepts discussed. During self-directed instruction sessions, students choose from a variety of optional expeditions designed to tap into different intellectual strengths.
<i>Demonstrate</i>	Milestone Project	Throughout the unit, students demonstrate understanding of the key concepts learned as they produce a relevant end-of-unit project.
	Milestone Project Construction Sessions	At the end of the unit, students are provided with one or two “construction” class periods to refine their end-of-unit project and receive constructive feedback from the instructor prior to assessment.
	Milestone Project Showcase with Final Assessment	A class period that engages students in sharing their work publicly. The teacher provides students with a final assessment of the Milestone Project using a detailed rubric.
	End of Unit Assessment Session (Optional)	Students relay what they know about the essential questions and key concepts through a more traditional end of unit assessment. This session/tool may be used in conjunction with the authentic assessment for the Milestone Project or in lieu of the Milestone Project final assessment.

Unit 4 Course Capstone

10 sessions

Inside the Course Capstone Unit

This unit is all about authenticity, reflection, and integration – three powerful keys to effective learning! During the capstone unit, students draw upon key concepts discussed during the entire course. The result? A career exploration curriculum that goes beyond instruction on a few topics and moves students toward integration and internalization. There are two phases included– a *group* phase and

an *individual* phase.

Phase	Approaches Used	Description
Group Phase	Group Capstone Project	The group capstone project challenges students to apply what they know through a group project selected by the class. Students work together to complete a real-world event while they practice and receive feedback on skills taught in the course. Students may organize a career fair for the local community or develop a workshop highlighting careers for younger students. This sequence engages real-people, doing real-work, in real-time.
Individual Phase	Individual Capstone Project	The individual capstone project challenges students to reflect upon and integrate their experiences in the course. Each student must select and revise milestone project artifacts to be placed in a career readiness portfolio that may be used as they apply for summer employment and continue to shape their career direction.

Implementing ENGAGE!

ENGAGE! is designed so that it could be implemented in a number of settings. The curriculum includes approximately 60 hours of scheduled instruction which equates to about 73 days of total in-class time. We recognize that this allotment of time may or may not be available in your location. As you begin to think about your strategy for implementing ENGAGE! consider the following ideas.

Implementation Strategies

Below is a diagram that describes a number of possible implementation strategies with ENGAGE! Some implementation strategies allow for a more comprehensive implementation of the curriculum as it was designed. Other strategies will tend to be less comprehensive of the entire curriculum scope and sequence. Regardless of strategy chosen, when used in combination with a solid career guidance plan and ongoing career counseling activities, ENGAGE! will act as an effective career planning catalyst for students in this age group!

More Comprehensive Approaches

Semester-Long Course – ENGAGE! is thought to be most effective as a semester-long course conducted in middle school.

Instruct			Integrate
Unit 1 <i>Making It My Choice</i> *12-13 sessions	Unit 2 <i>A World of Options</i> 17-19 sessions	Unit 3 <i>The Journey to be Career-Ready!</i> 15-18 sessions	Unit 4 <i>Course Capstone</i> 20-23 sessions

Quarter-Long Course – For a nine-week course, we suggest cutting out the milestone projects and related sessions.

Instruct			Integrate
Unit 1 <i>Making It My Choice</i> 9 sessions	Unit 2 <i>A World of Options</i> 15 sessions	Unit 3 <i>The Journey to be Career-Ready!</i> 14 sessions	Unit 4 <i>Course Capstone</i> 4 sessions

Counselor-Provided Instruction – The session layout is useful for school counselors looking for suitable curriculum to use in instructional settings. The variety of topics and projects – all with turnkey lessons and handouts provide easy use.

Less Comprehensive Approaches

Nebraska Career Readiness Standards

The following is a guide to growing relevant skills for career-ready practice. Throughout ENGAGE!, you will reflect upon these skills. Jump-start your growth using these ideas and tips to continue your growth as a career-ready student now and in the future.

The career-ready individual:

1. Applies appropriate academic and technical skills.

- Works hard and performs well in the core subjects (e.g., mathematics, English/language arts, science, social studies, etc.).
- Practices reading different genres - novels, textbooks, technical manuals – and notice the difference in style and format.
- Completes classes that meet high school graduation requirements.
- Grasps and applies new learning, knowledge and skills.
- Identifies the training, education and certification requirements for a chosen occupation.
- Practices reasoning to deal with different concepts.
- Uses learned academic and technical skills to improve a situation or process.
- Seeks to grow in knowledge and skills through additional opportunities.

2. Communicates effectively and appropriately.

- Asks related questions to gain or confirm information.
- Demonstrates the ability to interpret verbal and non-verbal messages in a conversation.
- Converses with diverse individuals in an accepting way to form positive relationships.
- Practices active and attentive listening skills. TIP: When listening, work to eliminate distractions that break your concentration on the speaker. Identify the distractions and practice ignoring them when listening.
- Practices taking well-written notes
- Constructs a well-reasoned position, based on openness to new information and ideas, to support a theory or justify a point of view.
- Prepares presentations to provide information for specific purposes and audiences.
- Delivers presentations that keep listeners' attention and interest.
- Uses technology appropriately to effectively present information.
- Uses professional etiquette and observes social rules when communicating.
- Practices appropriate use of social media.
- Uses proper word choice and tone when communicating to teachers and employers.

3. Contributes to employer and community success.

- Takes responsibility for individual and shared group work tasks. TIP: Plan ahead when major tasks or assignments are due. Do not allow work to pile up – be in control and plan to get work done on time.
- Models behaviors that demonstrate reliability, dependability and commitment to the organization. TIP: Train yourself to be 10 minutes early for appointments. Remember that when you are late, you are abusing others time not just your own.
- Arrives on time, ready and appropriately dressed. TIP: Keep a calendar or planner that clearly identifies times of activities and appointments.
- Complies with workplace and/or school policies and rules and understands why they are important.
- Participates in leadership and teamwork opportunities available.
- Demonstrates a respect for laws and those who enforce them.

4. Makes sense of problems and perseveres in solving them.

- Accurately defines a problem or issue.
- Recognizes all of the pieces of a problem, including those that are irregular.
- Presents multiple solutions and evaluates them for how well they might solve the problem.
- Uses critical-thinking skills independently and in teams to solve problems and make decisions.
- Sees plans through to the end even if there are setbacks.
- Prioritizes tasks to make progress towards objectives.

5. Uses critical thinking.

- Can look at a situation from multiple and diverse perspectives.
- Critiques possible solutions using valid research.
- Conducts research, gathers input and analyzes information necessary for decision-making. TIP: Talk to others before making important decisions. Ask for advice and listen to both the answer and the reason behind the answer.
- Develops and prioritizes possible solutions with supporting rationale. TIP: Research case studies that illustrate situations where individuals made difficult decisions. Study the strategies used to arrive at the most desirable decision.
- Considers the effect of a decision on others in the group. TIP: Think about a decision you have recently made that had a major impact on you or others. Write down a list of alternative decisions that you might have chosen and analyze the potential impact of each decision.
- Demonstrates a willingness to learn new knowledge and skills.
- Exhibits the ability to focus, prioritize, organize and handle uncertainty.

6. Demonstrates innovation and creativity.

- Uses information, knowledge and experience to generate original ideas and challenge assumptions.
- Initiates brainstorming to generate ideas to solve problems. TIP: When confronted with a task or assignment, take a sheet of paper and write down as many possible ways to complete the task. Think through which way is the best to accomplish the task.
- Appreciates new and creative ideas of others. TIP: Study creativity and learn new strategies for creating alternatives to accomplish tasks. Spend time with others to understand how they use creativity in their daily lives
- Knows when to move from ideas to action.
- Searches for ways to make existing processes more efficient.
- Accepts constructive criticism and makes adjustments.
- Takes chances to be creative, but knows when to listen to authority.

7. Models ethical leadership and effective management.

- Gains the support of others to accomplish a goal. TIP: Establish a mentor relationship with two or more adults you respect. Seek out their advice for your life. Actively seek advice from teachers and coaches to improve performance.
- Studies effective leaders and learns from them. TIP: Select two or three leaders and study the role their ethics played in guiding their life. Seek out opportunities to serve in leadership roles, either through elected office or as a volunteer.
- Considers how personal reputations are affected by decisions and actions.
- Recognizes how unethical behaviors cause consequences for the community.

- Practices ethical behavior at all times and follows the rules of the school or workplace. TIP: Keep a diary for a day of how many times you must rely on your ethics to make decisions and guide your behavior. Document each experience and the result.
- Determines the goals, boundaries, and deadlines involved in a project before starting the work.

8. Works productively in teams and demonstrates cultural competency.

- Builds consensus within a team to accomplish results. TIP: Study effective teams. Analyze what made them successful.
- Contributes to team projects and assignments. TIP: Seek out opportunities to serve on a variety of teams – sports, club teams, etc.
- Sees team members' talents and skills and how they can participate in the project. TIP: Volunteer for teams that include diversity or people - ages, ethnicity, work styles – watch others to learn how to be effective on a diverse team.
- Can see where conflict may occur and works to resolve it.
- Is able to disagree with a team member without making personal attacks.
- Can find an acceptable solution by negotiating between two conflicting parties.
- Gives and earns respect by interacting positively with people of different backgrounds, experiences and beliefs. TIP: Take time to meet people from other cultures. Get to know them and understand their culture.
- Stays aware of current local, national and global news, and issues.
- Uses awareness of different cultures to communicate effectively with others. TIP: Read about different world cultures. Understand why cultures developed the way they did and how their heritage affects how they see the world.

9. Utilizes technology.

- Uses a variety of ways to search for valid, relevant data.
- Evaluates Internet resources for reliability and validity.
- Create an organized electronic storage system for information gathered from the Internet so it is easy to retrieve.
- Uses the appropriate technology tools for sharing information, solving problems and doing work. TIP: Spend time getting to know technology – play on the computer, iPod, etc. – try new software and discover new uses.
- Demonstrates the technology skills needed for a chosen career.
- Understands the ethical use of information and technology, such as privacy and other individual's work.
- Is aware of how to be safe with personal information online.
- Follows school or workplace rules about the proper use of technology.

10. Manages personal career development.

- Can identify opportunities in one or more Career Pathways that align with personal interests and aptitudes.
- Develops career goals and objectives. TIP: Establish learning goals for your school year - include the grades you desire to achieve. Also, explain how you plan to accomplish earning those grades.
- Develops a personal education and career plan to meet goals and objectives. TIP: Identify learning that you want to experience outside formal education. Think about information you may want from the library, experiences you may want from community activities, traveling to another country, etc. Keep a diary of experiences and record how you apply your knowledge and skills to new situations and opportunities.
- Uses multiple resources, such as personal and professional networks, to locate job opportunities.
- Researches information about a possible employer to successfully complete an application.

- Creates a personal brand. TIP: You want to make sure that anything that can be found on Google gives a good first impression. Think about what you say or post online.
- Learns how to promote their brand professionally and can share experiences, knowledge and skills.
- Prepares a professional résumé. TIP: Update your résumé every quarter or semester to keep it up-to-date and so you do not forget any important experiences.
- Creates a portfolio that includes education and work experiences, license, certifications and projects.
- Presents a professional image appropriate for a job interview
- Looks for resources and opportunities that offer training, education and self-improvement.
- Understands the knowledge and skills required to be an entrepreneur.
- Can describe the benefits and risks of being an entrepreneur versus working in a career.

11. Attends to personal and financial well-being.

- Participates in a wide variety of experiences from arts, culture and humanities to promote personal curiosity.
- Follows a personal wellness plan that includes healthy eating, exercise and disease prevention.
- Builds positive social relationships with supportive friends and family.
- Create a personal budget with short-term and long-term goals that includes saving money.
- Makes wise decisions when making purchases.

ENGAGE! Addresses Relevant Skills

We believe students should not only learn what skills are relevant to a future career, but that they should practice, gather feedback, and reflect upon those skills. Throughout the *ENGAGE!* experience students self-assess their current skills and receive feedback and coaching on their skill development.

The skills identified in our own framework are founded upon a number of current skill frameworks including:

- SCANS Foundational Skills and Personal Qualities,
- SCANS Workplace Competencies,
- Federal Career Clusterst Foundational Knowledge and Skills, and
- The Partnership for 21st Century Skills.

A Strong Foundation: Models Used in Building ENGAGE!

Every great curriculum has a strong foundation. We chose to build the curriculum upon three primary models. Each of the models is research-based and has individually demonstrated evidence for effectively facilitating students' exploration of careers and learning performance. The result is a curriculum that has the models discussed here infused throughout. Models highlighted in the curriculum design include:

- Life-Span Approach to Career Development
- Project-Based Learning Environment
- Differentiated Instruction
- Federal and States' Career Clusters Framework

Life-Span Approach to Career Development

The content taught in *ENGAGE!* is based upon a life-span approach to career development. In 1980, Donald Super defined the life-span, life-space approach. In this approach, he defines “career” broadly as the combination of roles played by a person throughout the course of his or her lifetime. His theory provided an important departure from more “occupational” views of career. As a result, most career guidance and development interventions today recognize a more holistic and long-term view of the different roles individuals will play throughout a lifetime. Additionally, it broadens career development to an activity that is relevant to adolescents and adults alike.

Super outlines nine roles an individual may play throughout his or her lifetime such as:

- Child
- Pupil/Student
- Leisurite
- Worker
- Citizen
- Spouse
- Home-builder
- Parent
- Pensioner

He suggests that these nine roles may occur singularly. For example, a very young person only plays out his or her role as a child while others may co-occur as we mature. For example, a middle school student is likely a child, a student and a leisurite, or a person who engages in seeking out personal entertainment through hobbies, group involvement, and sports. As we mature, we assume multiple roles, causing us to make adjustments in our self-image and how we behave. His point, our self-image is not static – it will change and develop and we must be prepared to adapt to those role changes. *ENGAGE!* supports student acquisition of the knowledge, skills, and attitude necessary to adaptively approach role changes throughout the life-span.

Super also suggests there are five broad stages in our life-span:

Growth - Exploration - Establishment - Maintenance - Decline

Generally the stages are sequential. However, even established individuals may revisit earlier stages as significant changes occur in life (i.e. a person in their 30s has a big career change). Regardless, common decision points define each stage. In theory, these decision points occur before and at the time when individuals assume a new role or when individuals give up an old role. For example, middle school students are generally exiting a stage of growth and entering a stage of exploration. This corresponds with them assuming new roles beyond just being a student and child such as the role of being a worker or citizen. Following Super's theory, this time of transition makes it timely for a purposeful career exploration intervention that guides them in acquiring the skills, knowledge, and attitude necessary to negotiate decisions during the transition between different stages in our lives.

Project-Based Learning Environment

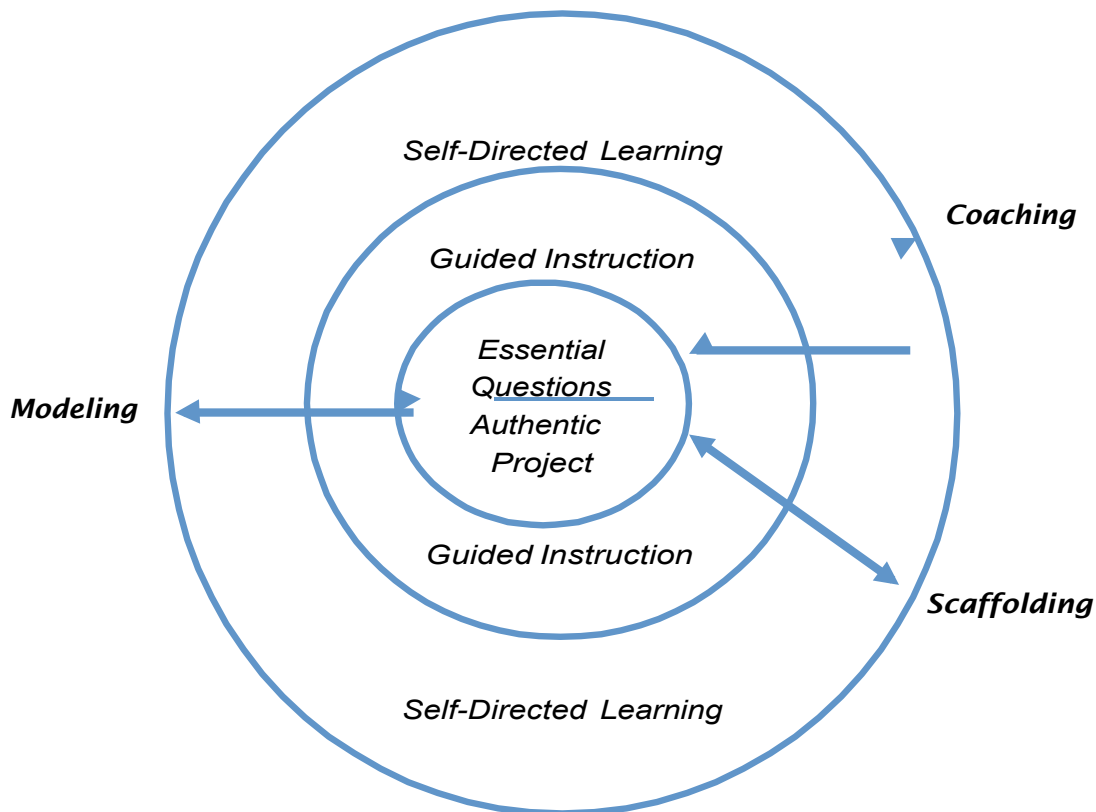
The *ENGAGE!* design facilitates students in constructing an understanding of key issues related to career planning and development. The goal is to further students who have adaptive behaviors and can make informed decisions about his or her future. To facilitate student understanding, we have based *ENGAGE!* upon a sound model for instruction. The *ENGAGE!* Project-Based Learning Environment draws upon two current instructional design models. The first is David Jonnassen's (1999) Constructivist Learning Environments. In this model, Jonnassen outlines six components for creating a learning environment to support constructivist pedagogy. Our model draws upon several components from his original model. Second, our model balances constructivist approaches to learning with Merrill's (2002) First Principles of Instruction. Merrill (2002) proposes five key principles to guide all problem-based learning models. He proposes that learning is facilitated when:

- Learners are engaged in solving real-world problems.

- Existing knowledge is activated as a foundation for new knowledge.
- New knowledge is demonstrated to the learner.
- New knowledge is applied by the learner
- New knowledge is integrated into the learner's world.

We believe the combination of guided instruction combined with elements of a constructivist learning environment match the developmental needs of the middle school audience.

ENGAGE! Project-Based Learning Environment Model



Each component shown is explained on the following page...

Essential Questions – Instruction in *ENGAGE!* begins with a set of essential questions. These questions must have a generative quality, meaning they must be relevant and important to the students' near long-term future. These questions set a tone regarding "what's in this for me?"

Authentic Project – The authentic project serves as an instructional tool to promote inquiry into the essential questions. It gives the students an immediate "reason" to look into the questions. Authentic, in the case of *ENGAGE!*, means that the product created has both immediate and future value to the students' career planning efforts. Additionally, the project's requirements should allow for a moderate to high degree of student choice as they construct the artifact requested.

Guided Instruction – As students begin their inquiry into the essential questions they need some initial guidance. Guided instruction provides students with purposeful, structured inquiry into a few general

concepts related to the essential questions. Instruction is structured so that students initially **experience**, **label**, and **rehearse** the new concepts.

Self-Directed Learning – Following guided instruction, students **elaborate** upon the concepts taught and **integrate** them into the project. During self-directed learning, students choose from a variety of learning activities. During this process students **activate** prior knowledge, experience the concepts through **modeling**, correctly **apply** the concepts to a sample real-world scenario, and **integrate** the concepts into their personal lives through the authentic project.

Modeling, Scaffolding, Coaching – Throughout all layers in the project-based learning environment, students are supported through facilitator provided modeling, scaffolding, and coaching on the key concepts addressed. Some modeling, scaffolding, and coaching is built-in and other forms of this support are up to the teacher to provide using his or her own expertise.

Differentiated Instruction Model

A second model incorporated into the *ENGAGE!* foundation is differentiated instruction. Classroom teachers face an increasingly diverse population of students. Differentiated instruction represents an umbrella of sorts for effective student-centered instructional techniques. Carol Ann Tomlinson (1995), the guru in this field, states “a differentiated classroom provides different avenues to acquiring content, to processing or making sense of ideas, and to developing products for feedback and evaluation.” Differentiated instruction is best explained through exploring the core assumptions and methods associated with this approach.

Core Assumptions

The following represent a sampling of the key assumptions upon which the model is based.

Assumption #1 – All Learners Are Different – Studies on individual differences in the classroom consistently suggest that there are a variety of individual differences that impact learning. Differentiated instruction typically recognizes and accounts for differences in readiness, students’ socio-cultural experiences, interests, learning profile, multiple intelligences, and biology.

Assumption #2 – Mastery Matters – Research on student’s task choice, persistence, level of effort, and help seeking behavior in classrooms commonly point to the need for creating mastery-oriented classrooms where everyone has the opportunity to achieve at a high level. In a mastery-oriented classroom, students are provided multiple opportunities to demonstrate their understanding, gain feedback, and revise products until they master the essential material.

Assumption #3 – Students Should Own Learning – Constructivist theories regarding learning suggest that students are active, meaning seeking and making individuals who actively construct mental models to organize and use knowledge and skill. Differentiated learning recognizes that learning is an active process and provides opportunities for students to practice important metacognitive and lifelong learning strategies such as goal setting and seeking feedback regarding progress.

Assumption #4 – Take Out the Guess Work – Research on what makes for effective, efficient, and enjoyable learning suggests that instructional tasks should be authentic and purposeful. Additionally,

students should clearly know what's required for success as they approach a new task. Differentiated classrooms incorporate authentic tasks and students are made aware of the expectations for success.

Methods from the Model

Differentiated instruction is compatible with most project-based, issue-based, and/or problem-based approaches to learning. Where differentiated instruction distinguishes itself from classic principles for effective instruction is in the three methods offered for honoring and navigating differentiation among students in the classroom.

Content Delivery - Differentiated instruction does not mean that students learn different content. Instruction is focused on teaching all students about the same set of broad concepts. Conceptual information is delivered via a blend of whole-class and individual exploration techniques.

Students' Processing - Differentiated instruction calls for multiple options to engage students in making sense of that information and concepts. These strategies may include engagement of different learning modalities, calling upon different forms of intelligence, working independently, and working within mixed-ability groups.

Ongoing, Meaningful Evaluation and Feedback - Differentiated instruction suggests providing multiple options for expressing what students know in the form of authentic projects and tasks. The approach also encourages students and teachers to utilize feedback from formative and summative assessment. Students work on the same general task but use different approaches. Students are made aware of the expectations for success early in the learning process.

Federal and States' Career Clusters Model

Overview of the Initiative

Helping students make their dreams a reality was the driving force behind the nation's career cluster initiative. First introduced in the 1970s, career clusters were developed by federal and state agencies and career guidance organizations to promote career awareness. Today, the career clusters movement is marked by a belief that career education is about offering all students resources to explore a number of career options, set goals, and prepare for meaningful work in the 21st century. Presently, the initiative provides a model for career exploration instruction and a framework for organizing and exploring career options.

A Model for Career Exploration and Instruction

In the career cluster model, exploration of career opportunities begins broadly. Adolescents begin career exploration by becoming familiar with the various clusters in the career cluster framework. This means students in this age group are exposed to more potential careers, *thus increasing career awareness and*

student options. Herr (2004) notes that without knowledge of what careers *really* exist, students may only rely on their perceptions, friends, and family to help choose a career. The career cluster model places emphasis on providing students and parents with accurate information about career options and what it takes to be successful in the workplace.

A Framework for Exploring Career Options

The U.S. Department of Education Office of Vocational and Adult Education (OVAE) identifies 16 career clusters representing career opportunities for the 21st century economy. The clusters provide a framework for grouping occupations according to careers requiring common knowledge and skills. Students explore a wide range of career opportunities from entry level to professional and managerial careers. The clusters are shown on the following pages.

References

Herr, E.L., Cramer, S.H., Niles, S.G. (2004). *Career guidance and counseling: Through the lifespan*. (6th ed.). Boston: Pearson.

Jonassen, D. (1999). Designing constructivist learning environments. In C.M. Reigeluth (Ed.), *Instructional-Design Theories and Models: A New Paradigm of Instructional Theory*. (215-239). Mahwah, NJ: Lawrence Earlbaum.

Merrill, M. D. (2002). First principles of instruction. *Educational Technology Research and Development*, 50(3), 43-59.

National Career and Technical Education Foundation. (2007). *State's career cluster initiative*. Retrieved October 15, 2007 from <http://www.careerclusters.org/>

Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 16, 282-298.

Tomlinson, C.A. (1999). Mapping a route toward differentiated instruction. *Educational Leadership*, 57(1), 12-16.