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WHEN LIGHTENING THE BOOK BAG CHANGES THE LOOK OF
LEARNING

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ABSTRACT

This teacher action research study was designed to discover the observed and reported experiences of 24 students and their teacher in a ninth grade elective course entitled “Introduction to Family and Consumer Science” when the course text was used as a reference rather than the only curriculum source. Participants included 19 girls and four boys within a traditional high school in a predominantly white, middle class small town.

The course included units on Personal Development/Consumerism, Child Development, Sewing, and Interior Design. Data collection methods included surveys, student artifacts, and participant observations, and interviews with students.

The teacher action researcher discovered that textbook use can be minimal in the Family and Consumer Science classroom, as methods involving more active learning help students effectively achieve the goals of the course. A strong sense of classroom community in which students are offered meaningful choices can lead to engagement and a desire to go on learning. Student-centered instruction offers students varied methods to support their individual social and academic needs, leading to more engagement and academic success. Teacher-centered instruction is useful in the classroom during the scaffolding process to assure a strong foundation from which students can build.

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RESEARCHERS STANCE

Introduction

Walking down the crowded halls of the high school where I teach, I observe so many interactions. Between classes, there are three or four clusters of anxious students in virtual perpetual motion--flirting, laughing, nudging, or even frantically cramming one last bit of information before the bell rings. Others are moving in a continual flow toward classrooms. I smile, greet those I know, and move on to my destination. Once the bell rings, the halls begin to clear and the students' whirr turns into muted commands as the doors shut and teachers take the floor in their classrooms. As I near the hall to mount the main stairs for the office, I hear a teacher calmly and most deliberately explain to a student that as she missed the last two days of school, she will be exempt from the chapter three test today. The student innocently asks what material she needs to make up and when she should take the chapter three test. To that, the teacher replied, "Just read chapter three, complete the questions at the back of the chapter and take the test in two days." I smiled, waved and silently moved on like a "Stepford Wife" living in a drone-like existence. When I was out of sight, I quickly composed myself. I was boiling inside but couldn't show it. What was the teacher actually saying? Was the student really supposed to teach herself chapter three? Were her students to learn nothing more than what was printed on those few pages of the textbook?

Non-Textbook Driven Curriculum

I cringe whenever I realize that a class curriculum is being driven by a textbook, instead of the mind. “Today, chapter three. Tomorrow kids, we are going to do chapter four. And next week, we will finally get to my personal favorite, chapter five!” How can any student be motivated by a number in a book? How can the teacher even stand to cover the same chapters year after year— same notes, same outline, same tests, then do it all over again?

Resources

There are so many resources for educators today, many more, in fact, than when I first began teaching xx years ago. I remember typing my first unit plan for my college professor on a manual typewriter, saying some pretty nasty things to myself on the third mistake, and yet another page that had to be started over. It wasn't enough to create a phenomenal plan, but then one had to type all of those ideas either on a white paper that had to be thrown or corrected with very messy tape.

History

In those days, there weren't state and national standards. Yet I managed to incorporate the enduring understandings that would help students in their present life outside of the classroom. As a science teacher, I made sure students worked collaboratively on problem-solving and researched material in the library—utilizing a variety of references; periodicals, brochures, and any other available

sources. They experimented, did projects to demonstrate their comprehension, performed skits, conducted simulations, and designed experiments around their questions. They were engaged and motivated. Students knew when they moved from analyzing the amoeboid movement of a one-celled animal to human anatomy without being told to turn to a new page in the book. It worked. And it still works today—even better.

Teaching Methods

Project-based learning is just one example of the myriad of teaching methods that have enlightened the education world since the time I was typing on the typewriter. Standards have come into play and offer another guide to use in developing curriculum. Additionally, technological advances offer more and faster information access just as I now speed through this narrative on my laptop computer. There are abundant instructional methods to enhance the student-centered classroom experience. Some of these include inquiry learning, problem-based instruction, hands-on activities, and project-base learning. There is an explosion of sources, resources, and proven techniques. The instructional possibilities that are reliable and effective are virtually endless. So, the role of the textbook does not have to drive the curriculum. The textbook does not have to serve as the expert. The textbook does not have to script the lesson plan. It can be just one important tool the class can utilize to enhance the curriculum. When all is said and done, it is the student who should be benefiting from the proven and

reliable, the engaging and challenging, the exciting, and innovative lessons. It is the student who should be prepared to meet the challenges he or she will face in society, the workforce, relationships, and life in general.

As my teaching path is like a river, it has flowed through many years in the fields of Physical, Life, and Earth/Space sciences. My personal mighty Mississippi River begins its long journey from a small stream emanating from Lake Itasca in northern Minnesota. I graduate from Drake University, in Iowa, with a BA in sociology and then decided what I had really always wanted to do is teach, so I enrolled in the University of Minnesota and graduated with an Earth/Space Science degree and a teaching certificate. My career began as many new teachers' do—substituting. During this time, I encountered a wide variety of types of classrooms and a spectrum of ideologies. From my teacher preparation experience, I knew that a careful blend of traditional and progressive methods would afford both the students and the teacher richer opportunities to reach higher goals for learning.

Personal Experience

My river wound through four states, a variety of subjects, and an array of schools. Needless to say, my experiences were quite diverse. As I have grown as an adult through these life-lessons, I have amassed background knowledge that helps form both who I am as an individual in society and in my classroom. I do not claim to have all the answers; nor do I expect everyone to see things as I do.

In this study, I will orchestrate experiences that will afford students opportunities to be a part of their learning, help them to elevate their desire to learn more, and learn more efficiently, and finally work with others to achieve their goals in the classroom and in their lives. The tools I will use will vary from increased electronic capabilities, varied literacy strategies, activities, and product generation. I will put aside the textbook bought for the course many years ago and explore the resources available to the students for information delivery, application, and assimilation within my current ninth grade Introduction to Family and Consumer Science course. I will explore problem-based learning through inquiry and the use of technology to enhance instruction. I will make the classroom a student-centered learning environment with opportunities for high achievement. I will look at the motivation and attitudes of the students in this elective class as well as their achievement while reinforcing compassion, life-long learning, and a strong work ethic.

Classroom Goal

When students and teachers walk by our classroom, they will not overhear a chapter by chapter overview of the next 18 weeks. They will not see neat, aligned rows of desks with heads bowed down over a skill and drill worksheet students are completing for the tenth day in a row. They will not see me droning over the tenth page of notes. What they will see are students interacting with one another. They will see me sitting with a group asking questions to lead them

through a troubled spot. They may even see me walking around in observation of what I hope will become a well oiled machine. They will hear student discourse, active learning, and collaboration while passing my door. They will see a classroom working through experiences of personal relevancy for as many students as possible.

Goal of Study

My goal for this study is for all participants, including me, to achieve the three main core beliefs I embrace: compassion, work-ethic, and life-long learning. All three will be a crucial part of the study as I evaluate student observations with these lenses in place. To evaluate the material I read and data I collect, I will look at not only my core beliefs but analyze the research through the different philosophical lenses to ensure I stay true to the value structure important to the growth of the participants in the study. I want to learn more about the effects of student and teacher-centered instruction when the textbook is used as a secondary resource in my ninth grade Family and Consumer Science classroom.

LITERATURE REVIEW

Introduction

A classroom may be filled with students, a teacher, desks, chairs, and more, but what matters is that meaningful learning occurs (Dewey, 1933). The process should continue, of course, beyond the walls of the classroom with everyone playing a role in the education of the next generation (Dewey, 1938; Vygotsky, n.d.; Whithall, 1975; Csikszentmihalyi, 1990; Sarason, 1990; and Ornstein, 2007). To ensure that educators provide what John Dewey (1938) would call *educative experiences* requires an examination of learning, a comparison of traditional to student-centered models of instruction and a look at best practices highlighting the proven tools in which student engagement, attitudes, and achievement can best be attained.

Learning

To begin the discussion on educative experiences, a working definition is necessary. John Dewey (1938) explains that an educative experience is not only one in which students learn but also one that provides opportunities for students to be involved in a variety of experiences that will evolve into further learning. Frank Smith (1998) adds to this by stating that classic learning is an easy process that merely involves interacting with those around you in activities in which there is interest and basic comprehension. The nature of learning then is that of

experiences or activity that promote the acquisition of new material. From 1938 when Dewey spoke of the educative experiences the students need to 1998 when Smith introduced his classic view of learning, the message is clear that we in education have not yet gotten it right. We need to set the classroom environment up for successful learning rather than the continued failure to educate.

Additionally, Whithall (1975) agrees that all learners can learn. He defines learning as, "...a personal struggle in which learners derive their own meaning and significance from the materials, ideas, values, skills, and interpretations to which they are exposed" (p. 261). Burke (2005) describes the constructivist theory of learning as a non-linear, active, and multi-directional process by which students interpret information and apply it to their real world experiences.

Vygotsky (1978) adds the crucial notion of the zone of proximal development (ZPD), which may be viewed as the second ring of three layered circles, each increasingly larger than the one on top (See Figure 1.). The smallest circle represents what the students already know, labeled A in the diagram below. The next larger circle is considered the *zone of proximal development*, labeled ZPD in the diagram. This is where learning takes place. Learning occurs when learners and more knowledgeable others interact within the students' ZPD, thereby ensuring that background knowledge is tapped, and the prior knowledge is accessed. If instruction falls in the ring labeled B in Table 1, the students will not be able to relate to what they already know nor will they understand this new

material. It is outside their grasp. In essence then, the goal of increasing the size of their knowledge circle will be curtailed. Lessons therefore, must fall within the boundaries of the ZPD.

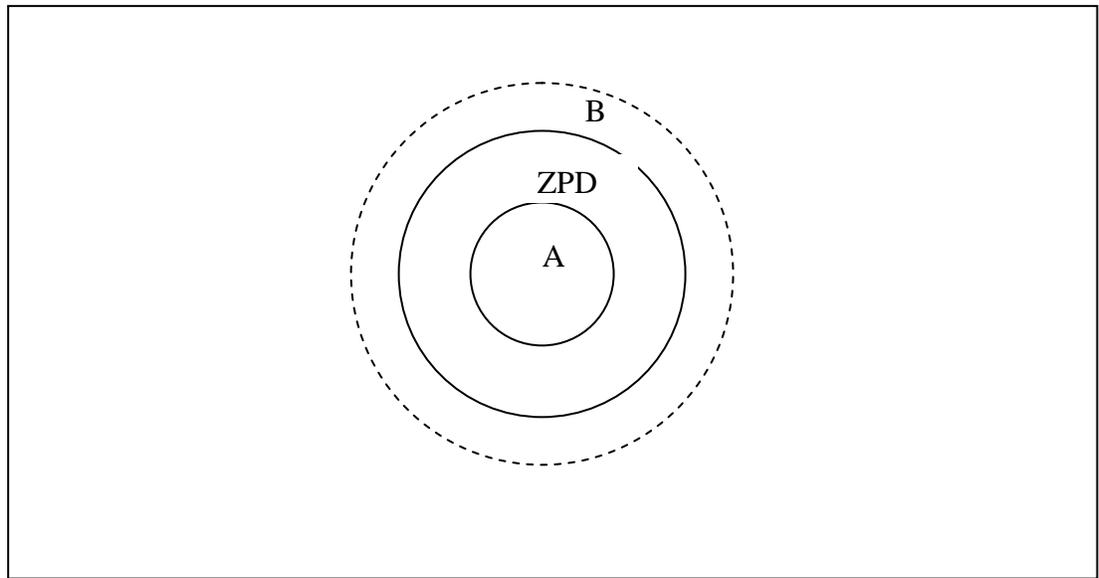


Figure 1. The three zones Vygotsky (1978) describes in his learning theory.

To that end, the charge for teachers is to create such environments so student learning can take place in a climate that allows students to use materials, ideas, and values to predict consequences, create plans of action, and look at relationships (Whithall, 1975; Sarason, 1990). Ornstein, Ornstein, and Pajak (2007) describe another view of learning as being playful in nature. This notion is in alignment with Smith's classic learning theory, in that learning should not be an arduous process. The students can relate what they learn to their daily lives to

enhance retention of concepts and use learned material after the class is completed. Sarason (1990) adds that early in their lives, young children have a natural curiosity and desire for answers. They start school with a positive attitude, a wish to share, a desire to find answers, and a goal to achieve their dreams. As they progress through many classes, they begin to see that school is work. It's not fun, and nobody cares about the genuine questions they have. Schools need to keep that initial desire alive, to break the barrier between a student's perception of school being a place to work versus outside of school being the only place where one has fun, finds answers to questions of personal interest and makes sense of the world.

For teachers to effect this learning environment, Sarason (1990) notes that we, as educators, cannot just teach how we were taught but instead must, "figure out how the experiences of students can be brought to bear on subject matter [and make the boundaries between school and the outside world] more porous and permeable" (p. 169). So, if we believe learners can learn, opportunities can be provided if the teacher can find a positive dimension in every student's response, use techniques that engage students in their own learning process, use formative assessment, or non-graded varied responses to assess progress, and lastly, model examples for clarification and illustration (Ornstein et al, 2007). The teacher's changing role in the learning process can clearly be seen when two classroom models are compared: traditional and student-centered.

A Comparison of Two Types of Classroom Learning Models: Traditional and Student-Centered

Traditional Classroom Model

In a traditional classroom, chairs are tucked neatly under the straight rows of desks with quiet students reading from a text, answering questions, and preparing for a test the next day by re-reading lecture notes. Fisherman and McCarthy (1998), quote Dewey's phrase for this type of learning as, "penitentiary pedagogy" (p. 23), where unmotivated, uncaring students resort to withdrawal behavior and disengagement. Here students are expected to leave their own questions and interests outside. They learn the rules, the facts, and the skills that the teacher determines to be important. The students work without play, fun, or appeal to their curiosity, interests, or imagination (Sarason, 1990; Dewey, 1938). The role of the teacher in a traditional classroom is that of the "sage on the stage," a metaphor used by educators to describe one who delivers information to the students. They cover material and hold students responsible for memorizing, and repeating back information deemed important either from a textbook or guide adopted by a school or school district. Freire aptly describes this as the banking model in which the teacher decides what he or she knows about a subject and what the students should hear. Next, he delivers the message for the students to memorize. Freire points out that in this model the students do not use any type of metacognition. The material to be memorized belongs to the teacher. In

agreement with Freire, Caine and Caine (1991) express traditional teaching in the following three points. The first describes the source of the information the student is receiving as being simple. It has a two-way path from teacher to book, worksheet, or film to the student. The second explains classroom organization as being linear, with students doing individual work or teacher directed lessons. The third describes the outcomes, which are specific, concrete, and, concentrate on memorization of concepts, vocabulary, and skills (as given in a seminar by Zadina, 2004). These models have a common thread in which students are the receivers of information that is deemed necessary by the teacher to inhale when told and exhale at a prescribed time and place with no chance of cognitively processing the material or increasing the size of the Vygotsian (1978) inner circle of knowledge. While the traditional classroom is linear and teacher-centered, the student-centered classroom may promote active learning.

Student-Centered Learning

In what Dewey (1938) would call a progressive or student-centered classroom, the students are actively engaged in solving problems to provide truly educative experiences in which the students are researching answers, engaging in discourse relevant to the task, formulating hypotheses, consulting with the teacher, discovering the underlying concepts, and uncovering the possible answers to questions posed by both teacher and student. It is a process by which the teacher utilizes his or her expertise in cognitive processes to affect student

learning in the zone of proximal development by expanding the size of the inner circle of knowledge (Vygotsky,1978). The students are not depositors, as in Freire's banking system, to be filled up with information only to be accessed when the teacher needs to make a withdrawal, but rather they are directly involved in the process of learning. As Freire (1993) explains, they may be "co-investigators" (p. 106). They are participants in educative experiences that have two parts, one dealing with the here and now, one influencing subsequent experiences in the students' lives. Each experience should help the students to better handle future problems and allow them to act rationally in new situations. Also inherent in these experiences are enduring qualities. They are pieces that the students take away for later retrieval rather than minute facts just memorized for a test only to be quickly forgotten. Student-centered learning is designed to provide engagement in experiences that help students to become life-long learners (Dewey, 1938).

In student-centered instruction, the primary responsibility of a teacher is to help students learn, inquire, problem-solve, cope with emotional needs and tensions as well as other needs as they arise in the students' lives (Trow,1960; Whithall,1975). Teachers ask questions and funnel experiences into a manageable process by which they can find answers to questions and solutions to problems (Brown, 2008). Further, the role of the teacher is that of the expert who knows the material, may foresee some of the problems the students may encounter, scaffold

or create a bridge over which the students can make connections from what they know to what they are going to encounter (Hmelo-Silver, Duncan, and Chinn, 2006) and frontload by providing background information on the materials they will use in their learning objective (Beers, 2003). The teachers ultimately create the metacognitive pathway through which the students independently reach their goal (Schoenbach, Greenleaf, Cziko, and Hurwitz, 1999).

Student-centered learning involves the students in their own learning, enabling students to reach high standards in achievement, motivation, engagement, and life-long learning goals (enGauge, 2004). The methods to which this comes to fruition in a classroom can vary with the nature of the subject taught and the make-up of the class. The inquiry model of teaching is discussed below, but it is the true art of teaching that enables the teacher to use that method which will create a community of learners who are eager to learn both inside and outside the classroom.

Student-centered learning through the inquiry process

Inquiry learning is built on the concept that students are involved in an investigation of an idea, an essential question, or task. It parallels the goal of learning as defined earlier, by creating the climate that allows students to use materials, ideas, and values to predict consequences, create plans of action, and look at relationships (Whithall, 1975). The inquiry process may initially sound germane to the field of science as in The National Academy of Science (2000)

definition of inquiry as how scientists study the natural world and how students gain an understanding of scientific ideas and an appreciation of how scientists study the natural world. To bring this idea into other subject areas, one must view inquiry in a more broad way. Such a definition is offered by Newman (2004), who explains that inquiry-based learning is a framework for students in which they describe objects and events, ask questions, construct meaning, and test explanations against current scientific knowledge, while interacting with others. The students identify “their assumptions with critical and logical thinking”, and consider “alternative explanations” (p. 258). Harlen (2004) adds that the inquiry learning process is a fluid structure, one which allows teachers and students to move around as their needs and personal beliefs dictate. This model can be used in different time frames as well, which adds to its fluidity. The class may investigate a small problem in one day, or delve into a complex problem that lasts throughout the year.

Table 1, Harlen (2004), illustrates a model that describes not only the student’s role in the inquiry process, but the teacher’s role as well. The columns represent actions in an open-ended or independent inquiry, which allows the students to follow their own design and implementation of a problem, to record and share what they have done, then reflect on the entire process. Note the number of roles each has. In inquiry learning, the teacher is clearly actively involved in the process.

Table 1. *Inquiry Model-Roles of Teacher and Students*

This chart represents the inquiry-based learning process. The columns show the breakdown of responsibilities or roles for both the teacher and the student. They are termed, *actions* to denote the active nature of a student-centered classroom.

Teacher's Actions	Student's Actions
Providing experiences, materials, sources of information for students to use directly.	Engaging in exploration of materials, events and objects.
Showing the use of instruments or materials that students will need in their inquiry.	Working in collaborative groups, sharing ideas, and constructing understanding together.
Asking open and person-centered questions to elicit present understandings and how students are explaining what they find.	Raising questions and considering how answers may be found through investigation.
Engaging students in suggesting how to test their ideas or answer their questions through investigation or finding investigation or finding evidence from [primary] secondary sources	Proposing possible explanations of observations
Where necessary, helping students with planning so that ideas are fairly tested.	Suggesting how ideas behind possible explanations can be tested or questions answered through investigation/active inquiry.
Listening to students' ideas and taking them seriously.	Planning and carrying out investigations, making observations and measurements as appropriate, or using other ways of gathering evidence, to test ideas.
Asking questions that encourage students to think about how to explain what they find.	Keeping notes and recording results in suitable ways.
Setting up opportunities for collaborative learning and dialogic talk.	Relating results to the ideas being tested or questions addressed; attempting to explain results.
Scaffolding alternative ideas that may explain the evidence from their investigation.	Communicating what they have done; listening to and sharing ideas with others.
Gathering information, through observation, questioning, and interaction, about students' developing skills and ideas	Reflecting on the process of the inquiry and on any change in ideas.

As with any educational process, there is a negative side and it resides mostly with the teacher. The disadvantages include time for problem development, structuring the inquiry, and supply acquisition. Additionally, since teachers do not work in isolation, other members of the department may not agree with this method of instruction. In the community, there may be parents who see the process as inappropriate as classroom experience since it may not reflect how they believe they learned (Radinsky, 2000).

What far outweigh the shortcomings are the strong advantages for the students. One advantage of this type of learning that supports the goal defined earlier is that learners actively participate in their own learning when they are allowed opportunities to connect known experiences and personal perspectives with new experiences (Harlen, 2004; Radinsky, 2000; Dewey, 1933). Another advantage of inquiry learning includes the part of the process that affords students opportunities for documentation. During this process, students form [more socially related] connections and make personal meaning with data, procedures, evidence, and claims. And the end result of inquiry-based instruction is ultimately students' higher achievement, increased motivation, more positive attitudes of students toward school, sustained engagement, and higher retention rates (Keys, Hand, Vaughn, and Collins, 1999). To achieve a student-centered learning

environment filled with educative experiences, effective use of resources in planning is essential.

Planning and Implementation of the Student-Centered Classroom Model

Utilizing Inquiry Learning

Planning for a student-centered classroom

Planning for a student-centered classroom is a key element in creating educational experiences in the classroom. To begin, use of the unit plan model called *Understanding by Design* developed by Wiggins, McTighe & McTighe (2004) encompasses the lasting ideas students can carry with them throughout their lives and creates the backdrop for daily planning. There are three basic stages. The first stage is to identify the desired results of the unit. The instructor highlights the content standards to be utilized. Next is formulating a question to which all learning is headed, and appropriately named, *the essential question or the big idea*. As this is an equally essential part of the inquiry process, it fits that a teacher in an inquiry classroom would use this design. Wiggins, McTighe & McTighe (2004) state:

The best questions point to and highlight the big ideas. They serve as doorways through which learners explore the key concepts, themes, theories, issues, and problems that reside within the content, perhaps as yet unseen: it is through the process of actively

“interrogating” the content through provocative questions that students deepen their understanding. (p. 106)

Once the essential questions are drafted, they may be broken down into understandings the students carry out with them and overarching themes and topical questions that will help to focus smaller lessons. Another part of this process is to identify misconceptions the students may have. Further breaking down the big idea is to separate knowledge and skills the students will encounter as educative experiences. The second stage involves assessments, which are the tasks in which the student demonstrates their level of learning. McTighe (2004) considers assessments a tool to measure achievement, or just how far in the cognitive process a student has come from whence he came. Achievement is further defined by other scholars in the field of education. Popham (2005) for example, defines achievement as “the knowledge and/or skills students acquire” (p. 17). Burke (2005) discusses achievement in the context of standards and describes achievement as what the students get out of the experience. Archibald and Newmann (1988) discuss authentic achievement in terms of three nodes. One is disciplined inquiry that incorporates prior knowledge and a process for understanding a problem from knowledge level ideas from others to new ideas. The second is integration of knowledge whereby the students try to see the big picture as participants in the learning experience. Finally, there is value past the assessment that can be used in real life, outside the classroom. What really

matters is that teachers effectively amass enough data about a particular student to make an album from individual snapshots. Monitoring their progress along the way will better insure that we do see a bigger picture of the student. To do this both formative and summative assessments are made. According to Popham (2005), formative assessments refer to “evaluations intended to improve unsuccessful yet still modifiable instruction” and summative assessments which “refer to tests whose purpose is to make a final success/failure decision about a relatively not modifiable set of instructional activities” (2005, p. 9). He further discusses the results from a study done on formative assessments by Black and Williams (1998), which were used by Britain’s Assessment Reform Group to establish the notion of “assessment for learning” rather than “assessment of learning” (Popham, 2005).

Assessment for learning is any assessment for which the first priority in its design and practice is to serve the purpose of promoting pupil’s learning. It thus differs from assessment designed primarily to serve the purpose of accountability, or of ranking, or of certifying competence. (p. 10)

As Popham (2005) continues, traditionally assessment was done to diagnose students’ “strengths and weaknesses, monitor progress, assign grades, and determine instructional effectiveness” (p. 11). He further adds that assessment should also include the influence on public perception of educational

effectiveness as “we will be the primary evidence that the public relies on to judge the quality of schools” (p.14). He is alluding to the public perception of how to assess students effectively. Since teaching skills are more political now, assessment of teachers is another reason student diagnostic practices need to be as accurate as possible. And as a final point, Popham asserts that we need to be clear on our goals for instruction not only for high stakes testing, including that which is required by No Child Left Behind (NCLB) legislation, but to improve instructional quality (Popham, 2005).

Once the assessments are written, stage three of planning for a student-centered classroom can be addressed. This is the stage where the learning plan is outlined with the careful consideration of resources. These resources need to afford students with the power to attain higher order thinking which is tantamount in acquiring the skills necessary for life-long learning in the 21st century. The inquiry unit plan will also account for students being involved in their learning by its social nature. Metiri Group (n.d.) presents an analysis of nationally recognized skill sets with teacher survey data and workforce trends and defines the terminology to discuss the skills that students, citizens, and workers in the Digital Age need to be productive in their lives. Digital-Age literacy involves language proficiency, scientific literacy in concepts and process for personal decision making, participation in society—both culturally, and politically. Students need to achieve economic literacy by analyzing economic conditions, public policies, and

weighing costs against benefits. Additionally, technology, visual information, multicultural and global awareness literacy must be attained to access, manage, integrate, evaluate, and create information in order to function in a knowledge society (ICT Literacy panel, 2002). Secondly, inventive thinking is required as technology simplifies the easy tasks; higher level cognitive skills are required to deal with more information. The Literacy Panel sites that specific 21st century skills should include adaptability and management of complex goals, tasks, and input while managing constraints such as time, resources, and synthesis in problem-solving contexts. Thirdly, effective communication through teaming and collaboration, interpersonal skills, and personal responsibility are important in today's increasingly complex society. Lastly, high productivity is tantamount to succeeding in the workforce. (NCREL, 2007).

Implementation of the plans for a student-centered classroom

To integrate the skills outlined in the planning stages, technology strategies need to be employed. Availability is important and ensuring the equipment is ready for student use are vital. The use of commercial and educational program applications for enhancing and guiding the inquiry process is available in many schools, so students can utilize a myriad of teacher-created exploration or collaboration forums such as a WebQuest or netTrekker (Thinkorize, n.d.) in order to follow websites preset by the instructor, respond to questions, or collaborate on an issue utilizing an online social network. The

governing structures account for yet another reason technology is useful in student-centered inquiry classrooms. The No Child Left Behind (NCLB) goals assist in every child acquiring the skills to become technologically literate, and encourage effective integration of the curriculum (LPA, 2007, 2004). These goals and The National Educational Technology Standards can be met in the current classroom LPA(2007). Further implementation practices are highlighted in Lakkala's study (2005). He looked at schools in Finland from primary to secondary and how they implemented technology based inquiry learning. Lakala found that when scaffolding was built into the task, the students were able to complete the task with the collaboration intended. In the secondary school, Lakala found the teachers who presented the task and expected the students to complete it were faced with students who were not as self-directed and needed more on task direction. So the initial design of the task is vital to its success, as well as patience when seeing the task through for the first time. Pedaste & Sarapuu (2006) concur as they state that the more open-ended the activity, the more the students have to be self-regulating. Looi (2004) utilizes interactive learning environments with technology to keep students engaged in independent literacy skills that require self-monitoring and wading through content-rich streams of information (p. 6).

In addition to technology, other resources also need careful consideration. Textbooks, for example, need to be evaluated for their effectiveness and used in accordance with the student-centered learning outcomes. In evaluating the

effectiveness of a textbook in a classroom, (The Graham Center, 2006) suggests the following questions: “Is the textbook written on the level the students can comprehend? Secondly, to what extent does the book focus on the instructional objectives? And lastly, what skills do I need in order to use the book more efficiently?” (p. 4). Efficient use depends on the knowledge of the teacher. If the teacher relies on the information to be current or accurate, outdated texts may perpetuate false ideals for the students Graham Center (2004). In a forward of Ravitch’s evaluation of high school history books, Finn wrote about suggested reforms that would highlight best practices. One recommendation is that teacher preparation should include subject area expertise to better evaluate materials used in the classroom. District-wide textbook adoption should cease, and power should be granted to individual teachers to choose textbooks that would best serve their essential questions and the student needs, or use the budget for alternative resources (Finn, 2004). If the textbook is inefficient, outdated, or the reading level is inappropriate, it should not be used it for classroom instruction. Smith and Wilhelm (2006) add that the problems with the traditional use of textbooks in an inquiry classroom are that they do not incorporate the nature of inquiry through the connections to students’ lives. Many do not allow for debate opportunities, real world problem solving, nor do they show empathetic understandings of differing perspectives (Smith and Wilhelm, 2006).

With the three stages complete, the students excited about exploring their questions and the resources available, teachers and students are ready to create together the most effective learning environment for lasting educative experiences.

Summary

Learning is a process that involves the teacher and the students. The teacher's role is that of a guide who understands the zone of proximal development (Vygotsky, 1978) for all students, provides opportunities that promote the acquisition of new material and recognizes that all learners can learn (Whithall, 1975), create the metacognitive pathways through which the students may reach their goals (Schoenbach, Greenleaf, Cziko, and Hurwitz, 1999) and that the experiences need to be educative (Dewey, 1938). The students' role is that of a co-investigator (Freire, 1993). The students describe objects and events, ask questions, construct meaning, test explanation against current knowledge, and interact with other students (Newman, 2004). Both the teachers and the students are participants in the educative experiences. With planning and implementation, the student-centered classroom can be filled with rich, lifetime experiences.

RESEARCH DESIGN AND METHODOLOGY

Goal of Study

The goal of my study looks at the effects of student and teacher-centered instruction when the textbook is used as a secondary resource in my ninth grade Family and Consumer Science classroom. To create such experiences, I had to ask some important questions. How do I form an inquiry experience that students will want to explore beyond the actual assignment? How has their perception of the class affected their motivation? How can I effectively engage students in meaningful discourse if they have not “bought in”? To help discover answers and ask new questions by collecting data, I used research methodology through the following methods.

Organization

Data collection can take on a life of its own if the multiple forms of data are not regularly filed, reexamined, and organized in such a way that they begin to tell the story of the participants—their journey in the classroom. My personal journey began the first day I saw the students. I watched, listened, and interacted. The class left and I furiously jotted notes down to remind myself what had transpired, how I felt, and what the students said and did. I thus began my journal, which recorded my reflection-in-action, thinking about thoughts and actions as they occurred and reflection-on-action, thinking about thoughts and actions after they have taken place (Hendricks, 2006). The journal, along with behavioral logs

(Hendricks, 2006) as well as projects, survey results and other responses from students constitute the field log or data.

Data collection began in a three ring binder—small at first, and then a larger variety by the end of the 16 weeks. I wrote notes on a clipboard in class when I could or just afterward, and during my prep period, I would judiciously type the handwritten notes. The first part would be a description of what happened, what I did, and what the students did, how they reacted, or what they said. Hendricks (2006) calls this participant observation. As I gathered data, I regularly re-read the reflections, surveys, responses, or direct observations from class and began to crystallize the material to make more sense of it resulting in further questions for the students and for me. (Richardson, 1994 from Ely, Vinz, Anzul, and Downing, 1997) As the study progressed, I collected more student work, responses, projects, and other artifacts that illustrated the student response to the method of instruction I was utilizing. I vigilantly collected enough material to ensure a wide variety of sources referred to as, triangulation, or the use of multiple procedures of gathering data to corroborate findings (Hendricks, 2006). I included personal observations, student observations, surveys, interviews, and artifacts. I gathered data in light of research literature in several areas, including collaboration, inquiry-learning, problem-based learning, technology, student-centered classrooms, student attitudes, student motivation, textbooks, and engagement.

Interviewing

Interviewing occurred in a casual manner as I walked among the groups and had opportunities to discuss issues that arose. I would record answers immediately in most cases, but was sometimes forced to recall conversations somewhat later in the day. Generally at least two of the students would be early to class, so I often took that opportunity to ask them questions I had from the previous day. If I used a direct quote, I would jot that down on a paper moments after it was said to ensure accuracy. Later when I could review the comments, I would then insert into the memo. All other responses were recorded later and not as direct, accurately recorded quotes. As data was collected, I also asked participants to make sure I had their ideas correct or interpreted the situation accurately by conducting a participant check (Hendricks, 2006).

Bias

Additionally I will admit to a pre-study *bias* toward the outcome of the study as well as the core beliefs I hold. I believe that the students will respond favorably to the interventions based on experience in the classroom and the research I have previously done in my 20 years of teaching.

Trustworthiness

Trustworthiness in this study is based on the validity strategies outlined by Anderson and Meir in Hendricks (2006). Democratic validity was increased by fully engaging the student participants in the process of collecting data, and confidentiality was ensured by using pseudonyms for each participant and keeping all records private. I sought the approval of my Principal (see Appendix A). The students were also informed of their right to withdraw from the study at any time without consequence. The parent consent form (see Appendix B) states clearly this right as well as whom to contact with questions. I did not betray the trust of parents and students by coercing them into an action in which they did not feel comfortable (Holly, 2005, p. 177). Another validity measure was outcome validity and was utilized in the study by tracing the data to make clear connections throughout the study. As I mentioned, I collected data on a daily basis over a 16 week time period through daily observation notes, artifacts, interviews, and surveys. To ensure process validity, confidential and accurate records were kept through logs, reflection, and observation. I wanted to ensure a high degree of validity through persistent and prolonged observation, timely transcription of class notes, accurate use of shadow logs, checklists, and reflection in action using thick description (Hendricks, 2006), as well as utilizing peer debriefing in my research support group. I also embraced negative case analysis

by including the data that did not follow what has been researched, or data that did not align with other data collected (Hendricks, 2006).

Self-Reflection

To further ensure a sound, ethical action research study I used self-reflection as a tool to help assure “honesty, respect, fairness, and accuracy” (Holly, et al., p.177) when interpreting and reporting the research data. This helped in understanding the data and writing the analysis to share with colleagues (Holly, et al. 2005).

The importance of a safe, enriching environment for my students is above all foremost in the endeavor to complete the study. Even after the study, students continued to benefit from what, I hope, was an inspiring classroom and to reap the benefits of a teacher who cares and is interested in helping them be the best they can be.

MY ADVENTURE

The Preparation and the First Few Miles

The five minute bell rings—usually a call to arms—a veritable slurry of activity—equipment hurriedly propelled into bins, drawers, notebooks, and baskets. It is a time when the students are thinking about their next class and ready themselves for the hallway navigation. Today was different. Today my students seemingly ignored my gentle nudge to clean up. They kept working despite the next prompt and the subsequent and increasingly more urgent prompts. They simply didn't want to leave. They were so engrossed in their activity that they didn't want to stop. When they finally realized that the next class beckoned, the clean-up was careful, efficient, and filled with project-related discourse. As the final bell rang and they left the classroom, every one of them made sure to say some departing words—goodbye, see you tomorrow, have a good day and so on until they all were gone. Wow! What went right today?

In this 9th grade Introduction to Family and Consumer Science classroom, there was not always this jubilation. The 12 predominantly white females and three white males began the year as quiet, somewhat indifferent, and relatively disengaged students in a public high school situated in an upper middle class rural community, and only a small part of the district's 4800 students.

Here is where the adventure begins, with my own book bag filled with anticipation, exciting expectations, and experience of 19 years of first days. I

prepared for this day for many months as I suspect many of us do to begin a new year with our own book bags and backpacks neatly packed, with notebooks class color-coded and lined up. I actually like to buy a new one to begin each new school year. I had created a new curriculum map filled with meaningful technology and content literacy experiences, and I had reviewed the best practices in education --worldwide. I was ready!

The First Day

To my chagrin, I greeted only mildly interested students. We made introductions, and the year had now officially begun. It was also official that they did not want to be there. Get acquainted B-I-N-G-O, a survey, a syllabus, a few questions on the simulated baby that they had heard about from friends who had already taken the course, and the period, or block as we refer to our double-length class periods was nearly over. “Oh, and one other thing about this semester: there will be no assigned textbook for this class.” A veritable flood of smiles and yeses came from the room. I even heard, “Praise the Lord!” come from my left. Did they think that meant no work or just a lighter load to carry to their lockers?

Textbook Question

Later I actually asked that question in interviewing five different students after the class was actually over.

They responded like this:

No, I just thought yea, no busy work!

It just meant that we were going to do more interesting activities

I thought Thank God! We don't have to lug around a heavy book.

I was indifferent, I hate reading textbooks but I didn't know what other work we would have.

I thought, finally, we have a teacher who is going to do something fun!

As I explained earlier, it is not my intention to forego the use of all textbooks entirely, but to use them judiciously and to create classroom experiences that utilize sound teaching practices and stimulating environment in which all students can reach high standards of learning. Delpit (2002) suggests that teachers should consider students' interests when developing curriculum but not limit the scope to just what the students say is interesting to them. This ideas does not suggest that you plan a curriculum by just what the students like but to use their learning styles, personalities and learning needs to develop the lessons

according to standards and objectives. Additionally, standards should not be lowered to just accommodate the students' interests, but rather teachers should endeavor to keep standards high as they utilize what they know about each student so you can create an environment in which connections from home to school and home again can be made by all students. I knew that I wanted to begin by creating an environment to elevate standards to a high level, while engaging students in interesting and meaningful experiences. What exactly those methods and climate would be depend on the students that help create the social network that weaves through learning. The more I found out about the students, the more the class became a learning environment for all of us.

The Personal Development Unit

So, with a high standards curriculum set and the first day out of the way, we began our first unit, Personal Development. The goal of this unit is to afford experiences in which the students can answer the question: "To what extent does understanding human development in the physical, intellectual, emotional, social, and moral areas help you to become a stronger individual and better citizen?" This unit was created by our department to help the students gain a stronger understanding of themselves through many activities. While some teachers utilized the textbook and worksheets, the approach I used involved activities through which the students explored their role in our classroom as well as their place in their world.

The Claymation Video

What do a heart on a nail polish bottle, a pizzaman, a lip, and a sun have in common? Why, personality of course. The goal of our first major assignment was to get the students thinking about their own personalities and the social, intellectual, and emotional areas. Another goal was to help build community in the classroom by seeing the others' talents, humor, and personality come out through their creation of claymation videos. What I didn't expect, though, as I made the assignment, was that they would see how they could film in a group and create a product that showed the importance of their social personality or how well they would learn from each other. The assignment asked students to create a personified object or character out of clay to demonstrate their respective personalities and then to create a script to show interactions with other characters or other actions to highlight the positive aspects of their personality. They had the choice between working in a group or by themselves to take snapshots of their character in action showing an interaction with another character or how their character was personified. Next they were to write a script for the pictures that were taken frame by frame and loaded into Moviemaker, the computer application that prompts students through uploading their snapshots then adding sounds, words, and music to create a video.

The process began a bit slowly at first as they were trying to think of how to represent their personality in clay—no easy task to be sure. They did chatter a

bit while working, but smiles, laughs and only a few questions arose during the work time. They eventually made their figures with only slight prompting or suggestions about how to create a certain look they desired. As they were working, they realized that some figures could work together to tell a story and still show their own personalities. So even though they had started out working alone, they saw they could show the social part of their personalities when they worked together. As I worked with them to create the scripts, I saw they indeed could illustrate their characters while keeping the group interactions together in the snapshots. They ended up with some great clay figures that represented themselves on several levels. On one level, they saw how their figure could relate to the others in the group and show that interaction on the photo. On another level, they could see themselves problem solving during the actual filming. They had to use social skills to keep the group from falling apart. Figure 2 shows the clay figures that were to be a representation of their personality. They took the individual pictures, uploaded them to Movie Maker and created an animated video of their personality, the social, emotional, and physical sides.

The rest of the filming process went quite well. The students chatted about procedural issues and engaged in at least a few process disputes, but they quickly squelched any fires that emerged within their own groups. Our first unanticipated problem came when we had to download the pictures. I took the class to the library where there is a room of computers. The students were given an

assignment sheet that gave the directions to follow for process so I could have our tech advisor help with the picture download and final move to the movie maker software. As each group finished, the rest of the class analyzed its product and commented upon what they learned about each other's personality characteristics and the creativity each group put forth. The heart on a skateboard, the nail polish bottle, the sun, the pizza man, the friends, and the dancers, all form a veritable m elange of characters who play roles in the classroom. The end result of this project was to help students understand themselves, how they interact with others, and how their reactions affect everyone around them.

Figure 2. represents examples of just how each has shown their personality. Lola's heart (see Figure 2 H) indicates that she is compassionate and loves to have fun. In all the observations I have made of her interactions with me and the rest of the class, this is true. The dancers, Kelly and Jassi (see Figure 2 F.) showed their love of dancing while illustrating how they relied on each other for fun. The sun, cloud, and the moon (see Figure 2 A) all brought warmth to the room through their kind and caring natures. They represent three students, Rochelle, Jim, and Casie, who sit near each other and interact like they do in the video --who work together in harmony. The pizza man (Jack) and lip- girl (Martha) represent two of the most playful students. The nail polish bottle represented an independent, confident girl, Valerie. The lone girl represented a

lonely, soft-spoken girl, Sandra, who in the beginning of the year needed encouragement to work with others.

These clay figures represent some of the personalities of our classroom that helped make the community what it was. As this activity concluded, I thought about the verbal feedback the students gave each other and concluded that the students learned about themselves in ways that a textbook could not have addressed.



Figure 2. Claymation figures

This activity served as a community building activity and led the students to begin the process of introspection as I found from data collected in my journal. 1. They

learned how to cooperate in a group to reach a common goal by creating the script and filming the scenes collaboratively. 2. They learned the technology steps of creating a video. 3. They were able to explore how a personified figure may represent all three parts of their personality: the intellectual, emotional, and social.

The sense of community was further demonstrated as the students experienced in this activity in which they had to work together to promote the feeling of security and openness in the classroom coupled with a better sense of self. Why is this important at this time of the year? Building a warm and caring classroom climate and respect for one another would be necessary for future learning experiences that would occur in our classroom over the semester. Freire believes that when problem-posing education is part of the classroom, *everyone* involved learns through a horizontally structured dynamic learning process. It is no longer the teacher telling the students what to believe, what to learn, and what to say as in the banking model, but a process in which dialogue between the students and the teacher promotes a learning environment in which there is knowledge reciprocity (Freire, 1970).

Dr. Seuss and Body Tracing

As we moved on in further activities in the unit of Personality, I wanted to help students explore a connection of their self as they see it now with their past experiences. I thought bringing in Dr. Seuss would be just the right approach. The activity itself was tracing the outline of each other's body to show how they look

physically and to write words that describe their unique social, emotional, and intellectual characteristics. They then hang them on the wall. Here is a look into the classroom during that day. The play represents the opening story, the reading activity:

Lola: What are we doing today?

Mrs. Sawyer points to board

Casie: Look on the board. She always writes the date and our agenda.

Lola: What? Dr. Seuss?

Mrs. Sawyer: I'm glad you asked. After announcements, we will have story time!

Lola: I used to love story time in elementary school

Casie: Me too.

Shuffle and squeak of chairs, general comments that seem that they are excited about how a children's book would fit in

Lorie: I'm so excited about a story. We haven't done this for a long time.

Mrs. Sawyer: I want to read this book because it deals with how you feel. How does that relate to what we are talking about in class? *[No hands go up immediately. Silence. More Silence.*

Finally...

Alex: It means when we are learning about ourselves, we should think about our feelings, I think.

Enthusiastically, Mrs. Sawyer reads the book, My Many Colored Days by Dr. Seuss

Mrs. Sawyer: What do you think?

Lola: That was cool!

Mrs. Sawyer: Can you think of your mood as a color?

Reflecting on this moment, I later saw that my goal was to create discourse that would afford the students an opportunity to reflect upon how color can also show personality, to help them see that what one wears reflects ones mood or how one wants to be perceived. But instead of patience and open ended questions that would lead students to discuss these issues, I did just what a traditional teacher would do and not what I set out to do. Upon further reflection, I remembered looking at the clock and flew into my own interpretation and then the instructions for the activity. The book introduction was now virtually lost with my haste. A great discussion would not have been a waste of time, and the outline activity could have waited for the next day.

Mrs. Sawyer: This shows how your personality can change and your reaction to others can affect people's moods. We are going to show that by exploring your personality through your image and how it may influence how other people see you. And you ask, how are we going to do that? We will do a body outline by tracing each other on a large sheet of paper and coloring and writing on it to show your idea of the image you project.

With that, students measured the paper, found partners, and began tracing. I remembered from last year that some did not realize some of the procedures that

make tracing effective such as the pencil must be upright, and I called their attention to going around hair and fingers to create an effective outline.

As I walked around we discussed cell phones and personality. I interjected, laughed, probed, and generally tried to create a feeling of trust, empathy, warmth, and understanding as students chatted about past experiences and their perspectives. What they derived from this activity was evident in their conversations about themselves and the way they chose colors, adjectives, outfits, and facial features. What resulted was a better sense of themselves, how they fit into their world, and how they might let me and their classmates into it too. The casual discourse was the key. My ability to move throughout the room helping, laughing, and sharing conversations allowed them to see that I welcome an open classroom where they can share themselves with me and everyone else. This was a climate building activity and an important activity to build a strong sense of classroom community. As this activity is also a formative one, there was no formal grade received.

In this first person narrative, constructed from field log observations and survey data, Lola explains that learning can take place despite the lack of books and worksheets.

Lola: Oh my God! I walk in to some of my classes and just know it is going to take an eteeeeernity to get to the end. I hate when teachers just talk the whole time. Yesterday I fell asleep while the teacher was talking

and I didn't wake up until an announcement came over the loud speaker. When I come here, the time seems to fly by. I don't always like what we're doing but at least Mrs. Sawyer laughs with us. We do cool things most of the time. Like the body thing. That was pretty cool 'cause we got to see how our body really is. I love to color so it was fun to make the outfit I had on. The face was hard though. I really can't draw. Sandra came to my rescue and showed me how to make the lips. Before that I looked like I had gotten stung by a bee. Some of the other faces are pretty funny looking but it's weird that I can still tell who they are. I guess their personality really came out!

The Advertisement

The next leg of our adventure began in an activity that brought the world to the class. The goal was to help the students become better consumers and to see that they are part of the world outside of the classroom whenever they see an advertisement and prepare to purchase something. I began the class that day by asking about their homework, which was to think about a product that they could "sell". They were going to the computer lab to generate a print-style advertisement that would entice their audience into purchasing their product. It could be one that is already developed or one that they created. Two of the main goals were to help students realize how much thought goes in to selling a product

in a print ad and helping them to realize what they should ask themselves as consumers when reading material with advertisements. Buyer Beware!

We had discussed and practiced advertising techniques in the days leading up to this activity. They were to think about the techniques they were using in terms of fairly representing the product, while making it look better than real life to draw the consumer in. Once in the lab, two choices that were important to the students were made; where to sit and which application to use once they started. Since choice is important to them, I gave them free reign over the decision of which computer application to use in the creation of the ad as well as which seat to take while in the lab. The idiom refers to the choice the students were given from computer applications available on the computer. They had to determine which program would best serve the goal.

Their success in completing the advertisement, given this freedom, depended on their previous experience, how the task fit within their Vygotskian zone of proximal development, and the effectiveness of my scaffolding. Some used Power Point, some Microsoft Publisher, and others used Microsoft Word. They were successful in finding pictures despite the many blocks on the computers but since they were determined to finish, they persevered. They printed and posted their work for evaluation by their peers. Each student reviewed five different advertisements through a process called, Gallery Walk. In this formative assessment, the students used a rubric printed on a half sheet of paper with the

criterion from which they score their peers (See Appendix C). They physically walked around the room to each of the advertisements evaluating as they would art work hung in a gallery. They were asked to evaluate for the following factors; creativity, description of product, enough information to sell the product, and whether the ad would change their minds about purchasing that product in the future. In so doing, they recalled the advertising techniques, evaluated the ad for the given criteria, and applied consumer skills as they would in real life. I then used these evaluations to note who had a grasp of the concepts and who needed further support. Caroline created an ad that had some appeal to her as she is a swimmer herself (See Figure 3).



Figure 3. Caroline's advertisement.

The students' evaluations were positive. They liked this ad for its appeal but questioned what the candy tasted and looked like but enjoyed the appeal to a more motivated athlete. As I had noted in my reflective journal, I saw that the students scored each other quite similarly to my score for them except for Caroline. They had given her perfect scores so she did not revise before handing in for a summative grade. In my evaluation of Caroline's advertisement, I indicated that I didn't see enough information about the actual candy bar to make me want to buy it. This brought her score to 12/15.

My evaluation of the other students, using the same rubric the students did, revealed that 90% had either 14 or 15 points out of 15 total points. Based on these scores, the advertisement they created met the criteria of creativity, consumer appeal, and product facts. The second goal of the assignment was met in the process of evaluating each other's ads. They had to project themselves into the consumer mode and apply the skills we discussed and practiced in class.

Metacognition: VARK Learning Style Assessment

As the students finished their ads, there was time for one short task. Even though it did not relate to advertisements, my goal was to utilize the computer time wisely. The task was to take a short multiple choice web-based test that gave them immediate feedback on their personal learning style and methods that help them study more efficiently (See Appendix D). The purpose for this type of assessment was to help the students learn more about how they can learn more

efficiently, but also for me to see how I could use this information to better meet their individual needs. Survey results indicated that our class was composed of five auditory learners, five tactile learners, three visual learners, and 11 were multi-modal learners. What that meant for my instructional plan was that I needed to ensure that they were getting a variety experiences that reach these modes of instruction and help them to use this information. The students were less than excited about completing this task but I found the data helpful, especially at the onset of the study.

Survey Monkey Survey

To check in with the students, this far, I had them complete a survey compiled on Survey Monkey, a free, on-line survey site that allows me to set up groups of ten questions for the students to answer electronically. The survey was designed to address metacognition and personal development. The students were exploring how they felt about key teen issues including the use of textbooks in their classes (See Appendix E). The survey was divided into three parts: general information, classroom learning, and their learning.

Part 1 –General

Most chose the class because they liked middle school Family and Consumer Science Classes. They are glad they took the class, and most of the students are self motivated to do well in school. What they liked and disliked so far in the class, most said they liked the group activities and moving around. A few

indicated there were too many notes. When asked to provide open-ended responses on how they remember or complete homework, they provided answers I predicted, including assignment books and note cards. Two-thirds of the students indicated that they were the driving force behind their own learning, while the remaining third awarded this role to parents. For future lessons, this showed me that they have a positive attitude about the activities we have done and going forward, I will continue with hands-on learning methods that involve kinesthetics. It also highlighted the fact that not all of the students are self-motivated and will require frequent communication home. As our district has a parent accessible grade book, grade reports need only be sent quarterly. What these results led me to was having the students bring projects and rubrics home to be signed and brought back for bonus points.

Part 2- Classroom Learning

Methods of instruction were first addressed. An overwhelming majority indicated they learn best from activities versus discussions or worksheets. Specifically, 62% responded with activities, 48% cooperative projects, 21% discussions, and 17% worksheets (4 students) When asked about engagement and choice, all but two students indicated that they pay more attention in a class that offers choices of activities. Textbook use was disliked by 90% of the students. When asked about a question they wanted to explore before the end of the semester, 95% responded

with similar questions about parenting. Others mentioned preparing for the real world, and creating clothing.

Part 3- Your Learning

The students indicated that they learn best when kinesthetic or corroborative opportunities are given for learning such as hands on activities and working together. Their responses to how they participate in class were “not often” and “sometimes”.

The question about what the students thought were important skills to obtain before leaving high school was asked to derive a sense of how to obtain a more student-centered classroom and how the learned material applies to the real world. The results indicated that 62% agreed that reading comprehension was an important skill to learn before leaving high school; additional student responses indicated the importance of following directions, organization, and working with others. Computer skills and problem solving were next important for most of the students. To me this indicated a need to continue to use a variety of reading strategies to continue improving reading comprehension which also helps with following directions. Also I will help them with the process of setting up folders to organize class materials.

Overall, their responses indicated they need an active environment that helps them learn through activities that offer authentic experiences with minimal reliance on textbooks.

This confirmed my decision not to use the textbook as a major source of information. As we would progress through the activities in this study, I was determined to address reading skills in embedded and authentic experiences where students would use websites and other resources to extract information to share about a question they have or reading a song lyric to extract meaning.

The Summative Assessment

The summative assessment for the Personal Development Unit is one in which the students were required to complete a traditional pencil and paper test since our district mandates common assessments. In our department it is common to have several teachers teaching the same subject so to keep the curriculum similar; the assessment was developed to provide similar goals and assessments that measure these goals to all students despite the different teachers. So I use one strategy on the test itself to be fair to various learning styles in the classroom. I offer a question on the test that allows students to espouse any ideas that they had studied for the test that were not asked on prior questions. Test results range from 89 to 93%. The median was 90% and the mode was 89%. As these scores indicate, some of the more concrete objectives were met. Among these were definitions for self-esteem and body image, what the influences are, how to be an informed consumer to name a few tested in this summative assessment. Figure 4 shows a portion of the test.

Body Image and Self-Esteem

Define each term in your own words:

Self-Esteem:
 Self-esteem is the value or importance in which you set yourself.

Body Image:
 How you see yourself and your body.

Describe 2 ways you could improve your own body image:
 You can tell yourself three good things about yourself everyday. You can eat healthier. ← I'm fat

Develop a paragraph that describes what factors influence your self-esteem. Then relate your ideas to the influences on character or values. You may use a piece of notebook paper. It also may be helpful to first create an outline for yourself. You may use this format for the outline if you wish.

A. Intro sentence

B. Body

1. Influences on self-esteem
2. Influences on character
3. Differences
4. Similarities

C. Summary sentence

Figure 4. Sample questions from personal development test.

In reviewing the overarching question for this unit: “To what extent does understanding human development in the physical, intellectual, emotional, social, and moral areas help you to become a stronger individual and better citizen?” I realize that this question cannot be directly answered by a brief test answer. What

I did want to illustrate is Alice's grasp on the meaning of self-esteem, body image, and how to improve as her definitions are accurate as seen in figure 4.

Figure 5 shows Alice's grasp of the influences on self-esteem and character.

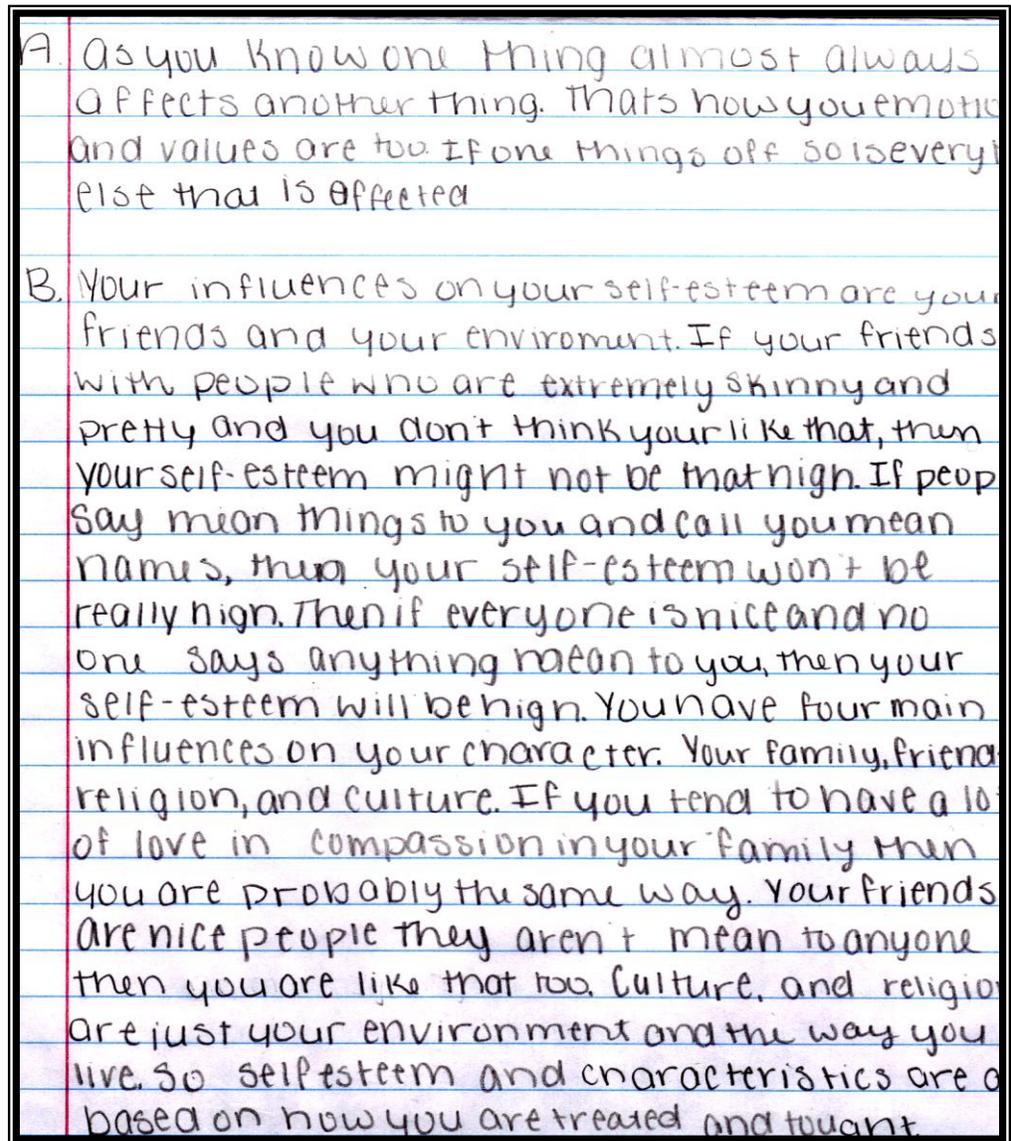


Figure 5. Short answer section of test.

Throughout this unit, the students demonstrated they could learn how to build self-esteem, become more aware of advertising techniques, communicate effectively, and analyze their metacognitive processes. Given their responses on both the learning styles survey and the Survey Monkey survey, the methods used to bring the students closer to answering the overarching question are aligned with the students needs for an optimal learning environment, while minimizing the use of the textbook.

With that, we ended the Personal Development Unit and we were on to new roads on our adventure.

The Child Development Unit

The next unit in the District’s map for “Introduction to Family and Consumer Science” focuses on child development. The overarching theme is, “To what extent does experience in the development process help you to become a stronger person?” The goals of the unit are to analyze the physical, intellectual, social, and emotional development in relation to theories of child development, to evaluate health and safety hazards relating to children at each age, to evaluate various environments to determine if they provide characteristics of proper learning environment, and to explain how storytelling, reading, and writing enhances literacy development in children.

Baby Think It Over

This was one unit many look forward to as they have heard about the baby, a take-home overnight -doll that was electronically programmed to simulate the experience encountered by single teen parents. Baby Think It Over (BTIO) was an electronic doll that allows students to simulate teen parenthood. The students each take a BTIO baby home for one night. They were solely responsible for the care of the baby. When the baby began to fuss, the student had a key that was secured to their wrists to put into a receptor in the baby's back signifying they were attending the baby's needs. They would gently rock the baby until it made a cooing sound, record the care time, what they were doing when the baby needed care, and how they felt on a journal set up as a chart. When they brought the baby back to school, I used my key to read the results of care in the electronic device inside the removable backing. The scores for this experience were based on the completion of a packet of forms for parent approval, the response times for the care of the baby, the pre and post surveys the students filled out, and the final parent responses (See Appendix F). The scores ranged from 100% to 72%. The mean score was 96% as most of the students scored above 90%. Some students were careless with the supervision of the baby, as indicated by the student self and peer-reported data. Clearly, scores decreased as the number of mishandling events increased. Students met the teen parenthood simulation goal by completing the experience despite the array of scores.

As I further reviewed my observational records from students' verbal responses to the class's barrage of questions upon returning to class from the overnight with the baby, I saw a sense of community emerge. The empathy the other students felt led to this overall feeling of family in the classroom. Because this is an elective class, not all the students in my school experience what can be 24 hours of anguish, but I wish they could. If so, more teens might have the opportunity to think a little more about the casual unprotected or careless sex that is a problem even in our small, relatively affluent school district. In this unit, I also tried to help the students see how their lives would change forever with any decision they make. There were a few notable problems in this activity. Some students were reluctant to take the baby home, in particular, two boys.

As the unit continued, the babies went home and came back with only a few minor incidents. The one thing I noticed when I reviewed the sign up sheet is that two people had not yet signed up for a date. It just happened to be two of the boys. I spoke with both of them separately and found out that they were both so afraid of not sleeping and getting teased by other students they thought that ignoring it would make it go away. I reassured both that they did have to do it, but I could understand how they felt. In this class we have only had boys take it in the past few years. I try to help them realize that they may be a parent someday but this experience is to help you realize the gravity of a teen parent experience. After contacting both parents, they were adamant about the boys taking the babies. As a

result, the boys did finally take them home—hated it but finished the project with pretty good grades! I think this represented a big growth experience for both of them. Despite the push they got, they realized that they could overcome something they didn't think they could do. This led them to learn more than just the intended lesson on single parenthood and teen pregnancy.

The Decision Making Process

Next in the curriculum plan was helping the students apply the process of decision making to decisions they may have to make and project some they may have to make in the future. To start, I showed them clips from the movie *Juno*, a contemporary film in which the daughter of a middle class Midwestern family gets pregnant, decides to give the baby up for adoption. The clips illustrated the issues all of the family members face as well as the adoptive couple. Also integrated into this part of the unit were issues in the decision making steps. Although the students don't always face the issue of pregnancy, working through this difficult a decision did help them see how one can try to anticipate some of the effects any decision would have on everyone around them. We contrasted *Juno's* decision with a made for TV movie called *Jacqui*. I asked students to write thoughts about *Juno* using the steps I had outlined for one way to process a big decision. The responses were as introspective as I would expect for a 9th grader. Most responses indicated a low level of emotional understanding because most

cannot project the lasting emotional scars that would result from a decision of this magnitude. There were no responses that discussed the situation emotionally. Figure 6 shares Casie's notes during the film outlining the decision making process and answers the question about what her parents would do if she told them she was pregnant.

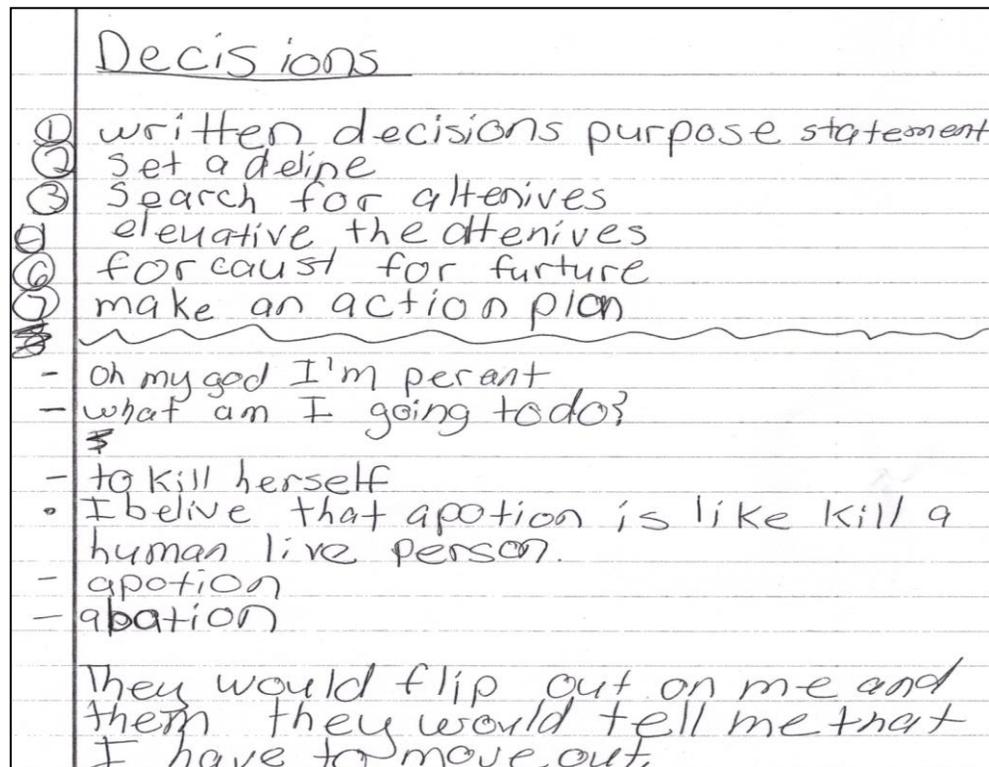


Figure 6. Casie's response to the movie, *Juno*.

What surprised her most was her Dad's reaction at conferences when she brought up the activity and what she had written. Her Dad unpredictably stated the he

would never abandon her because of anything she did. He would be disappointed that she would no longer have the opportunities he would want for her in life. It was a touching exchange that I share here to illustrate the power of learning experiences that reach beyond the classroom. The lasting affect may be what they take with them, I hope that as the result of our study they may now be more aware of what one has to go through if in that position. I hope that watching clips of Juno's predicament doesn't make the situation appear easy—that she just goofed it off and afterward they just went back to being the kids they were before the baby. I was sure to address this issue with the class after the movie. The responses were more profound than what they had written.

Kelly timidly raised her hand and asked what decision Jacqui had made.

Maxi blurted out, "I think she had an abortion.

Jassi excitedly said, "My gosh! How could anyone do that?"

Caroline agreed, "I couldn't but I also would get kicked out of the house if

I came home being pregnant. I guess that is why I just wouldn't have sex!"

I added, "But what if a friend of yours told you she was pregnant?"

Anne quietly stated that she would help her tell her parents and make the decision together. To that comment a few responded similarly and we then ended the period with all of the students talking as they left the room about someone they knew or what they would do if they had to make a difficult decision. I think they realized that this was not reality for most and there are emotional hurts that

continue throughout their lives. Based on documented discourse in my journal, I deduce that this activity increased their awareness of the lasting effects of certain decisions more than reading a diagram about decision making in a textbook.

A Closer Look at Babysitting

As they now had parenthood on their mind, I led them through an application of the skills and qualities necessary to be employed as a caregiver for a child. I had them make computer generated flyers that incorporated care giving characteristics. At this point, I could have assigned the chapter in the text on this issue, and then had them answer questions that pertain, but I wanted the students to have the opportunity to create a product they could use if they were going to babysit. Students use the textbook as a reference to locate the lists of skills and qualities a good caregiver would possess.

They used the computers to generate a flyer that highlighted their skills, past experiences, references, wage and time availability, and contact information. This was actually another method of note-taking without the negative connotation. An advantage to teacher presented notes is that they get to converse about the range of wages they get babysitting, talk about experiences they had as caregivers in the past, and think about the influence they can have on their wards. The responses were mixed on this activity. Some thought it was too contrived and they would not actually use the flyer they created. Others thought it was dumb because they would never baby-sit. Others thought it was fun and recognized that

this type of note-taking was better than just copying down an outline. They said sometimes taking notes in many classes was a waste of time because the teacher always went too fast and they couldn't ask questions or talk to other kids.

Baby Sitter :)



Hourly Rate: \$5.00

Sarah's Phone: 610-275-0887

I love kids and have a good time playing with them. I will keep my eye on them at all times and not let them get out of my sight. I have a lot of energy and plan to have a good time with your kids. You can reach me after 3:30 on school days and all day on the weekends at the number below.



I try very hard to keep your kids safe. One day last summer I was babysitting for my neighbor. Her daughter is seven years old and we were sitting on the floor playing a board game when someone knocked on the door. I got up looked out the window. It was a guy I've never seen before so I told Sydney, the little girl, to go down to the basement very quietly. We stayed down there for about ten minutes and then I went up to check and the guy was gone.

Figure 7. Caroline's babysitter advertisement.

In Figure 7, Caroline created this flyer that highlighted an experience in which she cared for child in an extreme circumstance. She used a reasonable hourly rate, described her characteristics, and gave times available and contact information. The required skills for caregiving were alluded to in her story rather than in list form which showed more creativity. This was typical of the students' work. Instead of just listing the skills or characteristics, they provided a story that highlighted them.

Based on the babysitter brochure rubric, this activity provided students an opportunity to not only read the skills and characteristics a child care provider should possess, but to use them in an authentic application (See Appendix G). Another positive result was the communication that occurred while creating the flyer; who were able to discuss differing wages they charged for babysitting, funny experiences, and a few heroic ones too.

Parenting Issues Inquiry Activity

As the unit continued, I wanted to bring in different perspectives on the issue of discipline. Instead of reading the small narrow-viewed section of the textbook, I created an opportunity for the students to engage in an inquiry activity in which they posed a question to investigate on their own in the computer lab. Before heading to the lab, they wrote some questions to which they could find an answer. As I circulated around the tables, I heard nothing but the scratch of pencils on paper and the scrape of pens whining on the lines. They were engaged in their own learning—a quick trip to the computer lab and they plunged ahead with the search for their answers.

The original goal of this assignment was to have them research just the spanking issue but I later decided to open it to any issue on parenting to allow for a more engaging lesson. The questions ranged from what type of discipline works best to how to name a baby. The majority of the class wondered if spanking is a good choice for punishing children. Some of them looked up differing age groups

and found that many experts think spanking is OK for small children before verbal communication is reliable. Others found that discipline and punishment were two different things. They were engaged in the search for reliable resources to answer their question. They documented at least three sources, as instructed, and synthesized the information into one paragraph. As many voiced the opinion that their questions were personal, I did not have them share their answers with the class as I had considered this a personal learning activity. I also did not grade the exploration as I felt the process was the key element in this exercise which included framing a question, finding key terms to research, exploring the answers in reliable websites, then writing a succinct answer. They asked a question, answered the question based on reliable sources and turned them in. I read and responded to them based on whether they followed the prescribed process. They all wrote responses that I felt were comprehensive and reliable.

Cat's In the Cradle

In addition to the open-ended parenting question exploration activity, I provided an opportunity for the students to hear the song, "Cat's In The Cradle", by Harry Chapin, that aimed at giving the students an opportunity to tie in a piece of music history and connecting culture to the parenting issue that relates to one working parent and the difficulty in balancing a strong work ethic and time at home with children. The activity began with the students listening to a recording of the song. I played it several times to allow students to hear and process all of

the lyrics. While doing so, they filled in the blanks on a paper I gave them having portions of the lyrics already written. They next wrote their interpretation of how the lyrics show the effects of the difficult decisions one has to make in parenting. In class, as we read through their responses together, I tried to initiate discourse to highlight the pros and cons of the dad's decisions and how these decisions affected the child's choices as he grew up.

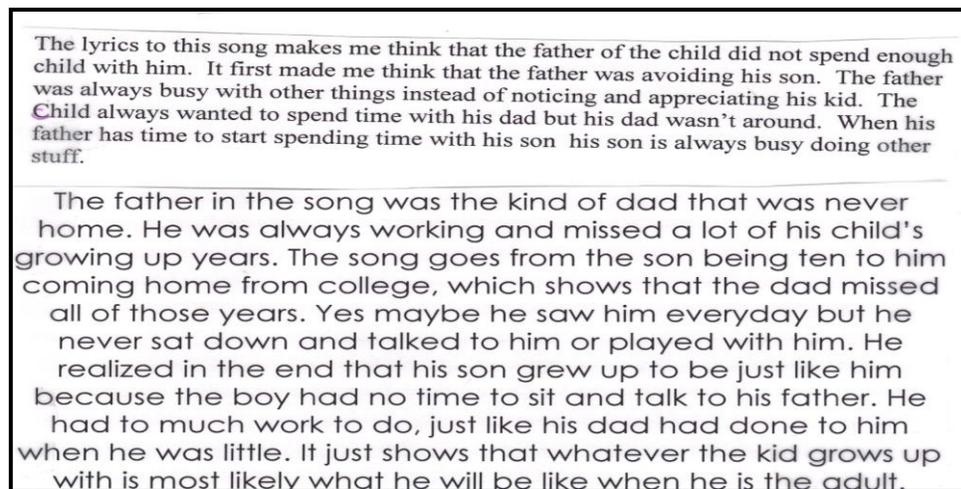


Figure 8. Sample student responses.

Figure 8 includes two student responses to the lyrics of the song. In the first example, the student interpreted the father's absence as purposefully choosing to be away from the child. Then as the father was free, the son was busy but did not address why the father might be gone but merely implied it was a choice. In the second example, the student realized that work sometimes takes precedence but seemed to not approve. As these interpretations are age-

appropriate, I was glad we had engaged in discourse that brought out more points about jobs and how difficult it is for parents to make the choice between work and home. Some parents do not have a choice due to their circumstances.

As Martha's face went from a jolly smile to a distant frown, I knew she was thinking about her own experience. Her hand shot up. As I smiled and caught her eyes, she blurted out that her mother had just gotten a new job and must spend a great deal of time there. She went on to say that it was OK, though, because she is happy and is earning a lot of money. Roger, who rarely speaks looked her way and said she was lucky because his dad just got laid off. He spends time at home but he isn't happy and it makes everyone miserable. I interjected then and asked what they would do if they were parents. Many hands went up and a discussion ensued about what families need, the basic shelter, clothing, and food versus what they want, the luxuries and extra comforts then some of them added the question of love. Is it a necessity or a luxury? And the room exploded with even more lively discussion. When class was over, I looked back on the period to see that they had gone much further in processing the authentic question that began the class than if they had read the text about families and the roles each person plays.

Wiki Ages and Stages of Development

A Wiki is an internet application that allows for free, protected, interchanges between students and their teacher to create a networking experience in which all participants learn from each other. It is a page created by a teacher

that may be accessed by all of the students so they can add to it and retrieve information. The page I set up included the directions for the project, sites to explore, and folders in which the students were to add their research findings. Once the folders were complete, they could use these in completing the next tasks, the chart highlighting growth milestones of the major age groups in child development then the activity presentation for their chosen age group. Here, the teacher is the student, the students the teachers and vice-versa. There are multiple uses including shared postings the students create and questions the teacher can pose in which the students respond. To illustrate the capabilities of this type of learning, I wrote this little poem.

The Wiki

by Mrs. Sawyer

A wiki

A world of possibilities

A place to work and play

Building communication skills through research and publication

Immediate response

Interactive

I developed the front page of this Wiki to enable students to read the directions for the assignment and post to folders that will house each developmental age. The 3-step process included the research and posting, a grid

that encapsulated the major developmental milestones from infancy through school-aged children, and a learning experience for a child of a certain age that would help in their physical, intellectual, emotional, and social development. The WIKI portion was created for the first step; to learn the stages of development utilizing the current research in the field from the vast sources available electronically. The students were to investigate children in one age range: infant, toddler, pre-school or school-age. They were to find at least three resources from which they would derive information about each developmental area for that age group, including physical, intellectual, emotional, social, and moral. This is essentially an electronic jig-saw of the ages and stages of children's development. The goal was to help them learn about how children develop and how their needs change throughout this development. The second part of the activity was to help them organize the material being posted on the Wiki, I gave them a blank grid with the ages of development running down the left side, and the areas of development across the top. They could then see the major milestones of each stage and I could see if they were discriminating between the five areas: physical, intellectual, emotional, social, and moral (PIESM). For the third part of the activity they were required to create an experience such as a game, a toy, song, book, cooking experience, or other to share with the class that would help in all of the developmental areas of their chosen age group.

Before they began, I had the categories posted with the number of slots available. So, they were given a choice within the parameters set. They hadn't used a Wiki before so I had explained that they would use the suggested sites to research their age group's milestones, or those actions that childhood experts agree signify the move to the next stage. Once their research was catalogued, they were to post on the Wiki so others could retrieve this information from which they would complete a development chart then the activity. To minimize the questionable reliability of some sites I gave them a list of reliable places to find their information. The room was abuzz with the on task talk. As they discovered research in their chosen areas, they typed quickly on a Word document to post to the Wiki in the file labeled for their age group. Soon after, they found out how to use their log- in for the Wiki site, began posting and then the on-line talk began-- slowly at first. Then, peristaltic excitement was sent through the classroom after they realized that they could talk to each other, like on Facebook, and do their work simultaneously!

The positive aspects of using such an approach were quickly coming to light. Students were building communication skills in a different format but they felt a connection to the others that they would not necessarily have built otherwise. They were learning the possibilities that a Wiki site can hold for a classroom, and they got to know each other just a bit more. Importantly, they were also helping each other learn more about the stages of development. The student

comments, the on-task behavior, and the resulting formative assessment on stages of development were in unanimous support of the efficacy of such learning. To close this activity, the class shared toys, books, activities, party ideas, or food experiences that helped their age group develop in all areas (PIESM). Each student then became the caregiver, showing us children how through our play, we actually are learning and growing! Roger wrote in his response after the whole unit was over about the Wiki experience, explaining, “I loved the Wiki because we could get what we needed done still communicate with others ask them for help and ideas and work with others.”

As documented in my observations in my journal, the three steps were all accomplished by all of the students. They all performed at a high level of understanding and by completing the chart, they were able to reference the developmental stages and prepare and present the activity demonstrations flawlessly. I learned from this three-part activity that I did not need to use the textbook to support academic progress for ages and stages of child development. The reliable resources from the internet, the jig-saw method of material retrieval, the chart summary, and the subsequent activity presentation served to scaffold and reinforce the development of children from infant to school-age.

Assessment of Progress in Child Development

The unit test was a common assessment given to all students who take this class and was comprehensive look at safety and caregiving skills, ages and stages

of child development, and parenting issues. It was a traditional paper and pencil test, with 75 questions, 20 situational multiple choice, 35 identification and application multiple choice and true/false, and 25 short answer/fill-in-the-blank with a word bank. The questions allowed the students to think on many cognitive levels. They were able to recall care-giving skills, discuss the issues of parenting, apply their decision making skills and describe the milestones in the ages and stages of child development. The results indicated they were able to complete these tasks. They were able to articulate the answers to the questions asked in the beginning of the unit.

Not only were they able to perform well on the test but they also had a positive attitude about the activities. When asked about the experiences in the computer lab, the responses ranged from “I love it” to “Funner way of learning.” The projects were described positively. The comments included, “I like doing the projects” and “Neat ways of learning child development” The presentation comments can be summarized by Roger’s note, “It was all good!” As they were all positive comments, I see that not only did learning take place as evidenced by their collective high scores, but the students enjoyed what they learned as they were engaged in authentic experiences. I ruminated over the unit survey results, the student comments, activity rubric grades, and test results and found that learning took place through the experiences provided in the computer lab, the projects, and presentations, without using the textbook exclusively. Notably,

looking further into the traditional department sanctioned unit test results, I found them to be indicative of mastery in the following areas: defining basic terms, identifying areas of development, sequencing milestones in development, applying caregiving skills to real-life situations, and evaluate learning experiences for effectiveness in development of children from infancy to school-age. I learned from this unit that the students responded well to a more student centered approach in an academically oriented learning unit. In the sewing unit, the objectives are more skill oriented. I set up this next unit to reflect the students more active learning style with hands-on, kinesthetic instruction.

The Sewing Unit

I chose to move next to the sewing unit to help students realize firsthand how much they could personally accomplish and to provide even more hands-on projects and independent work opportunities. Through a series of nearly all hands on, practical experiences, I would help students meet the unit objectives. Some of my colleagues prefer to have students read about the skills or objectives, take notes and complete worksheets before moving on to projects for reinforcement. Since unit goals asked students to develop hand sewing skill by sewing on a button, and using the machine to sew a button hole, a pocket, and either an apron or a pair of drawstring pants, as well as fabric choices, ironing, and other such life-skills, I felt that the students could learn largely through brief demonstrations

designed to accommodate all learning styles. The students worked at their own pace, in an open, individualized setting.

The class proceeded each day as I expressed the day's objectives by writing the skill or task on the board, or handing out instructions. I then demonstrated the new skill and provided opportunities for students to practice until they were satisfied with the outcome. The only constraints they had were to make some progress each day. Each day I evaluated student progress by assigning a work grade from one to ten points. Most students did well as they were motivated to finish their work. I worked hard to ensure that students had some choices that made the classroom feel like theirs and that they had a voice. I was always sure to let them ask as many questions as they wished, ask for another demonstration, or even let me know if what they needed was sometimes just moral support.

One of the first assignments students created was a candy corn pouch, showing their skill mastery of straight stitching on the machine, cutting, and clipping. They were amazed at themselves as they completed it. Sally wanted to do a good job to produce a gift for a friend, noting, "My



friend loves candy corn, so I want to give the corn I make to her.” See Figure 9”

Figure 9. Sally’s straight seam example

Jake said he was going to give his project to his mom, while Rochelle was excited to hang it on her bulletin board. In the process of completing the project, students learned how to cut a pattern, sew straight lines, trim, and press. Some students asked if they could stuff it to make a pillow, and I was happy to hear their imagination working and quickly and enthusiastically agreed. The assessment was based on the two stitching lines on the front, the curved seam attaching front to back, and the finishing. All of the students received a grade in the A or B range. The criteria were judged on a scale from five to one and added to a total of 15 points. Sally’s corn was scored as 13. The seaming in front was perfect, yet the curve at the bottom was a bit askew. She also had some threads that had not been clipped. Although this was a small project, the benefit was really a practice item for the bigger project.

Engagement at Its Best

As our unit progressed, nearly everyone started without prompting, and the class was quickly abuzz with questions and activity. The biggest obstacle I had previously faced when teaching this sewing unit to the 9th grade is that they simply begin without reading the directions, so I tried to remedy that by copying the printed directions that came with the pattern and modeled some reading strategies. With them, I highlighted and rewrote some of the steps. I also asked

them to check off each step as they finished it. In this class as in many classes, the reading levels are quite varied, so I tried to demonstrate and model the steps they need to take just after they read them so they can correlate a real-life visual with the manufactured illustrations. As their learning styles inventory indicated, the class is multi-modal and needs some of each approach so everyone can “get it.”

Wonderful learning opportunities usually arose for both the students and me as we had opportunities to talk during open work sessions, just as we had done throughout each of our units of study. One particular day, while we were working, we started talking about what lay ahead. They were excited to hear about the Interior Design project on which we will work on next

I like introducing the units in this casual manner as it gets them talking about the material and applying it to their lives before we even begin. If I stood up in front of class and went over everything we were going to see in the unit, they wouldn't remember. This is also a time when class text would be little to no use. What it does offer are survival techniques and outdated fashion trends, but I found it more effective to share tips in conversation where appropriate. For example, one day Maxi came in wearing leggings, a long sweater, a wide belt and wedge heeled shoes. As this is the “latest,” I quickly commented on how cute the outfit was. I then asked the whole class if they had seen pictures or movies that had fashions like this. Nobody had, so I explained how the fashion industry draws from past designs. This “look” was very popular in the 1980's. With a few color,

fabrication, and small detail changes, the look becomes 2000's. The fun part of this was that all of them then asked what era their outfit was from. We looked at some of my fashion history books, and the lesson turned from strictly sewing projects to a fantastic educative experience in the fashion industry.

The Devil Wears Prada

To further explore the industry, at least as its portrayed by Hollywood, we watched parts of the film, *The Devil Wears Prada*. During the clips, I highlighted designer names, the source of color choices, and the fashion trickle "down" effect from designer to mass marketing. As the students came in to the room that day and saw what we were going to do, their eyes lit up and I think I heard a "Fantastic, I love the movie". While they watched, they wrote down as many designers as they could. After the film, we had a great discussion on how the new season's colors are chosen, and how fashion is dictated first by the designers then marketed to the public. The goal for this lesson was met as the students were drawn into a lively discussion of the garment industry.

The Final Sewing Project

As the class continued on the adventure, they completed their chosen sewing projects and created additional items of their choice as the others finished up. What surprised me the most after finishing this unit and giving the survey was the response to the question I had asked about the projects. They all indicated

choice, even though there had been only two actual choices. This made them feel like they had a say in the matter and provided a sense of ownership and desire to complete the project. Many were going to make the item as a Christmas gift. When they came back from break to tell me about their friend's reaction or their Mother's tears, I was pleased that what they had learned in school had been valuable to someone close to them. I was both glad that they came back to share their experiences but also happy that they created something of personal value.

The written common assessment was a multiple-choice, true/false, short answer paper and pencil test. The questions ranged from skill recall to ironing procedures, and from color schemes and designs for body types to seaming and notion identification. The scores indicated a mastery of the desired concepts. We had reviewed some of the terms and followed a project –based unit plan with high goals and standards to which they rose. The scores ranged from 76 to 99 with a mean score of 88 and a mode of 92. Just before I administered the test, I had the following brief exchange with one student:

Lola: Can't we just have a practical exam? I really don't know anything. Well, I know things but not from the study guides. They were hard.

Mrs. Sawyer: You know so much from actually doing the work. The test is just on that information.

What I sensed here was that Lola didn't think she was able to apply what she knew from working with a practical application of the concepts to the written test.

I often wrestle with the balance of information delivery through hands-on and discovery methods through projects with fact finding missions and traditional fact delivery. In the sewing unit, we pretty much completed projects through hands on work and active participation. I gave only a few definitions and machine parts to learn and reinforced that terminology through use. I demonstrated techniques, and we discussed fashion, trends, and fabric types. I demonstrated how to use a pattern from a commercial pattern company, and how to prepare and cut out the fabric. If students had used the book alone, they certainly would not have had access to what they learned from my demonstration or from their own product development. The books continued to be available for reference, but students did not use them in this unit.

Interior Design Unit

The final part of the class to be included within my teacher action research study was the Interior Design Unit. Here there was a myriad of activities planned to help the students create a final project design board in which they apply the concepts of elements and principles of design. The unit goals include the application of the elements and principles of design to their daily clothing choices, to their room arrangements and decorations, and in their future homes. This unit also served to introduce them to careers in Interior Design by creating an

opportunity in which they are both client and design professional as they redesigned their personal bedrooms in the final project. The final project had three parts. One part of the project included a visual presentation on a project design board. The visuals were placed on the board in a fashion that followed the elements and principles of design namely; line which is how the eye moves along a space; shape or the space an object fills; color, the use of it to create an illusion and color schemes; rhythm, the simulated movement in a room; balance, how different sized pieces are mixed to create symmetry or asymmetry; and proportion, having the appropriate sized pieces for the size of the space. It also included a title that reflected the mood of the room, the room's color scheme using paint store paint chips, the piece that inspired the design, pictures of all of the furniture, linens, and accessories that were purchased, and a scale drawing of the room on graph paper. The second part of the final project was to create a budget sheet that showed all of the purchases that would be made for the design to come to fruition. The third part was to explicate the changes they made to their rooms, the feeling they wanted to convey in the new design, and what furniture stayed and what was removed.

The following description illustrates the approach I used to lead the students through the elements and principles of design and then into the final project. Instead of assigning the chapter to read, I asked them to follow me through a series of demonstrations and activities. My goal was to create

interactive lessons that helped them realize and apply the concepts of design. The lesson began with a chart highlighting the elements of design. I started with *line*, where I juxtaposed a definition on the overhead projector with a vivid, boldly colored striped patterned fabric that I held up. Holding it horizontally, I asked, “How do your eyes move?”

Hands shot up and I called on Casie to answer.

“Horizontally,” she responded.

“Yes. That means across.”

I then held it upright to illustrate how it would change the line by drawing your eye vertically. As I scanned the room, I saw a light bulb go off in Caroline’s eyes. Her hand shot up and announced that she wouldn’t wear anything like that because she doesn’t want to look any taller. I loved how she put all of that together in just a few seconds. The illustration could not have been better for the other students as well as a formative assessment insight for me. As other students continued to make such connections, I felt confident they grasped that element of design and moved on. For shape, I had them cut a piece of construction paper into an object of their choice. They glued it on to their paper and labeled it, *shape*. They tacked them up on the cork board on one of the walls for a visual reminder as they progressed with their final projects. For rhythm, I had them tap a beat on their desks. It got noisy, but fun. Before I asked them to stop, I had them close their eyes and imagine that they had pictures of their friends to put in an empty

white room. As they continued to beat individual rhythms, I asked them to pretend they are in this room hearing the beats and place the pictures on the walls to create this rhythm. When they stopped, they excitedly shared how their rooms looked. *Balance* and *proportion* were learned through cutouts of various furniture pieces and placed on an overhead. After I demonstrated the concepts, the students took turns rearranging the room to show balance and proportion. Casie went first, accurately choosing pieces that had the right $\frac{1}{4}$ " scale. She put the heavy dresser on the long wall, the bed opposite that, and a night stand to balance on either side of the bed. I left the accessories out so they could just practice with basic bedroom pieces. Everyone agreed that was well balanced and proportional.

When Lola asked to go next, she smiled at me and pushed the same furniture around until the arrangement shifted from furniture neatly placed along the wall to an asymmetrical balance of furniture with the bed in the corner and the dresser in the opposite corner. She looked over her design and asked if she could add a few more pieces. Given the freedom of time I had, I reassured her that she could design it as she wished but maybe she could ask the class for suggestions. A few perplexed faces looked at her but others volunteered ideas they had been devising. I loved that she embraced the cooperative nature of my suggestion and we continued in that manner until a few more students created designs with a few different pieces of furniture. The only drawback I saw when I reflected on this exercise was that only a few students could work the overhead design at a time

not giving the ones that take more time to formulate their design ideas. It did however give students some innovative room arrangements that they could test in their own room designs.

The final mini-lesson was the review of color schemes using the color wheels they had made in the sewing portion of class. The exercise began as a friendly table-to-table competition. I first asked a randomly chosen student to volunteer a color choice. I asked another randomly selected student to name a color scheme. The students all had to find the other hues that made up the student-identified scheme and write them down for accountability. I checked answers and kept a running tally as we practiced the identification of basic color schemes. The winning table's reward was two bonus points. The students stayed engaged and motivated to accurately identify the hues in the color schemes and I could find out who needed additional support.

Another example I shared was a room design in which students might use line to create an illusion of width or height. I brought in a photograph of a small bedroom I had painted at my home I also explained how one of the wall hangings I have in there served as my inspiration for the theme of that room. The significance was that I helped them make connections of design elements to a real room. I also had them recount any room they had seen that illustrated more examples. Instead of textbook definitions, they were using examples I had brought to them and examples they shared together during the class.

For a formative assessment, they used the elements to draw and color an outfit or a piece of fabric on paper using a named color scheme and a few of the elements and principles. They had some trouble remembering the names of the color schemes but looked at the reference sheet they had created in a previous class and also utilized their interactive color wheels. They were all successful in creating their fabric on paper, or the outfit. The path from using the elements and principles for an outfit or fabric to a room was fairly straight forward for them. They managed to color two rooms with two different color schemes that they had chosen and correctly identified. After a few days on scale drawings with a practice one under their belt, the ground work was laid and they had the scaffolding to begin planning their rooms. What transpired through the process can be seen through the following composition taken from my observations and comments made as they were working on the project. The commentary below was constructed from many students' comments. I chose to put it into a single, first person narrative to illustrate the process one person would have experienced during the final interior design project.

This was so cool because we got to find anything we wanted on the internet no matter how much it costs, to put in our rooms. We really learned how to arrange it and add colors and patterns to make it all work together like the designers on the shows we saw. We started with what Mrs. Sawyer called our inspiration. I found a Metallica poster that I used to design the rest of the room. I even came back to pick up my room design the next semester because it was so cool. I know my parents can't get me everything but they said they would help me to make my room as much like it as possible. Probably the designer bed for \$1,100 won't be

part of the plan but maybe we can find a cheaper version somewhere. My friend said that her mom did make her room over just like her design. It was a dream come true! I know there are even some kids that want to grow up to be interior designers because they had so much fun creating this room. I think they said it was that they could really choose what they wanted and be as creative as they could be. If we had just used the book to learn, it wouldn't have been as fun. Mrs. Sawyer asked us if we were learning and not just having fun and I know a lot of my friends said we learned more in this unit than we would have if we just used notes and a book because we learned the stuff when we were doing the project. Sometimes it got frustrating because she would ask us questions that made us think about why we were choosing certain things. Then we had to think more about what it meant for the project. I guess that's what she means when she said we were going to learn while we were doing the project. I liked this class because we learned almost everything this way.

This view further illustrates how nearly all of the students felt while proceeding through the goals of the unit. They were inspired through the knowledge base I provided with experiential learning rather than a skill and drill process some traditional methods would have utilized.

This type of summative assessment not only serves as a learning tool for the student, but it can also provide a teacher with feedback on how well the students understood the concepts by applying them in a creative and engaging activity (See Appendix H).

A few of the designs can be seen below. In Figure 10 , the design board for the Metallica inspired room, the overall presentation was not as professionally glued as some of the other pieces, but was able to express the concepts of rhythm, color, line, balance, and proportion. The elements were placed in a balanced fashion on the paper, with the inspiration Metallica poster easily identifiable.

Figure 10. Room design board by Kurtis

In contrast to Kurtis's design, Figure 11 shows Casie's arrangement of pieces on the board, suggesting more movement. She utilized the room's color scheme in the board's lettering and background paper. In the design, she utilized the circle paint pattern to bring line and rhythm to the wall from the bedspread. Her furniture was in proportion to the space, and color helped bring out the intended mood of the room.

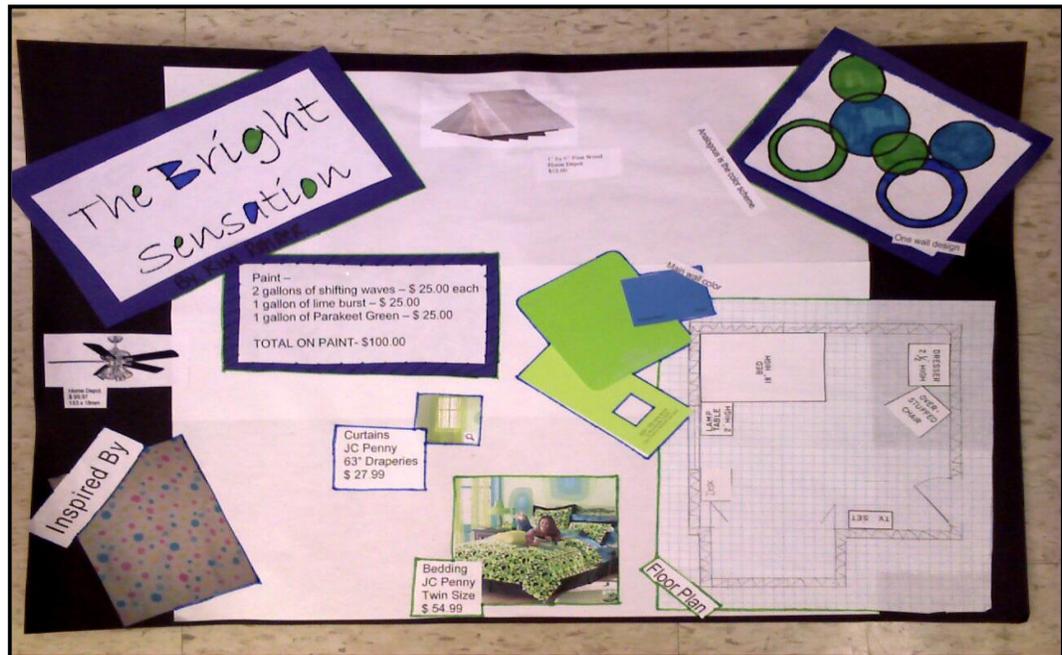


Figure 11. Room design board by Casie.

Casie's analysis was right on target. She described her analogous color scheme and her pillow case inspiration piece. She listed the furniture she was keeping and new pieces she purchased. Casie described the fun, exciting, and lively mood of the room. She also did well on her test and scored high on the design project as well.

Once the projects were handed in, the students were then required to complete an evaluation of other students work, or the Gallery Walk. To illustrate one flaw in utilizing student grading devices, I am showing Lola's design, Figure 12. The students used a gallery walk assessment method for five designs. To do this, they were given a rating sheet with a few of the elements and principles of design to be rated on a 5 to 1 scale along with open-ended responses to questions about balance and rhythm (See Appendix I). I chose only some of the elements and principles for two reasons: to help reinforce those concepts and to keep the form short enough to keep their attention while learning from this tool. In rating Lola's design, Megan, Calie, and Jim all found the overall impact, inspiration piece, and balance utilized effectively. They were also in agreement that the title did not relate to the mood of the room, and commented about its lack of rhythm. For these students, I asked them to speak with Lola about the design for her interpretation. When she finished, they agreed that they had marked her too hastily.

There were a few more students that reviewed the same design and had given her high ratings in all categories. In this experience, students used their own interpretation of the concepts to rate others' designs. This process opened up their interpretations further than if they had not been given this opportunity. They had to process the material even further than rote memorization of concepts that a traditional approach would involve. Lola's rating of the next design was as one that utilized balance and rhythm, showed the color scheme, the inspiration, and the overall use of the elements were all high. For Lola, although her score on the project was an 82%, she was able to apply the concepts of balance, rhythm, use of an inspiration point, and the mood of the room on the test questions that asked about those specific concepts. This rating system helped the other students too. They were allowed to see how the other students interpreted the design principles and how to apply those concepts in the unique designs. It was not the fault of the designer, but the concept misinterpretation of some of the reviewers.

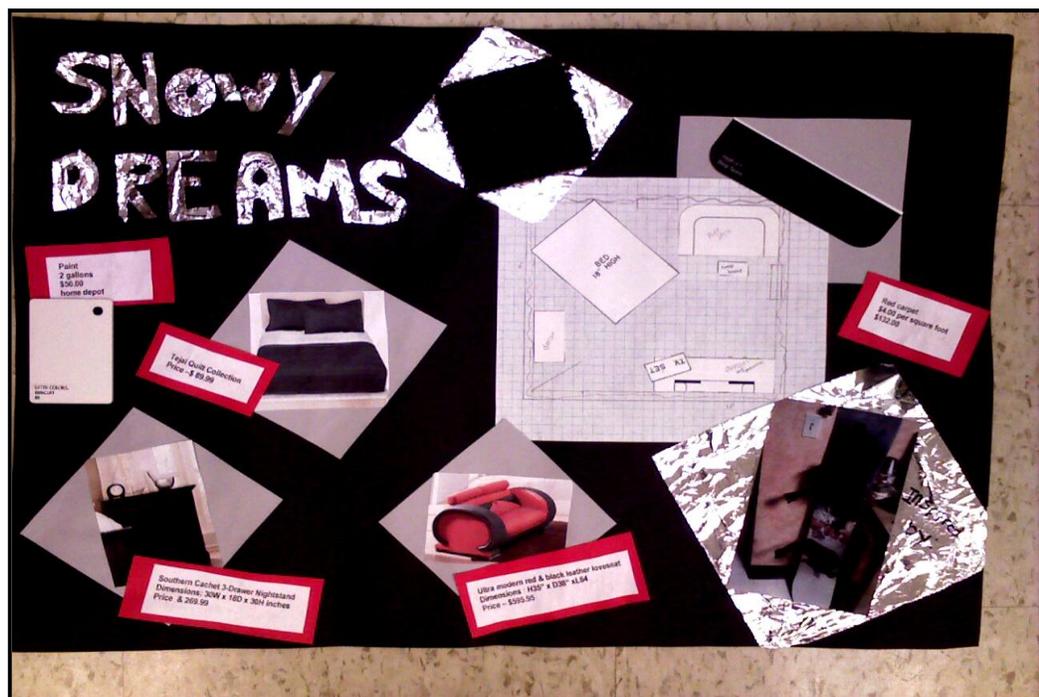
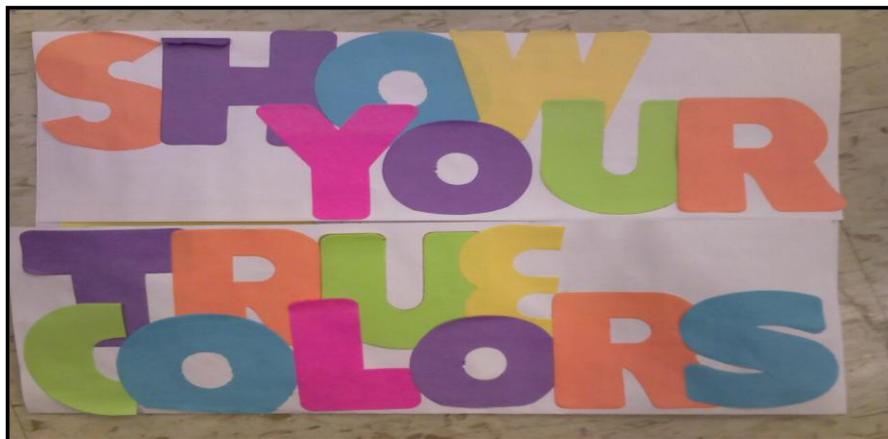


Figure 12. Room design board by Lola.

The comments helped me to see which students needed more support before leaving this unit. In contrasting this project and the method for student evaluation to a more traditional approach leads me to see which students needed more support,

Figure 13 shows how one can think outside the box and create a display that is interactive. In part A, Anne illustrates how the design board can be created from different materials. Anne used paper and created folds from which the customer could unfold the flaps to reveal the design inside. She cleverly made the title dance with rhythm as she set the tone for the entire room. She received all perfect scores from her classmates on the gallery walk reviews. I agreed with them as she showed rhythm in her choices of furniture, line, color scheme, proportion, and balance all were displayed in the room design as well. She completed all parts of the requirements and earned a 98% on the project. Her final exam grade reflected her retention as she earned a 100% on the portion of the exam.

The other problem I encountered was the overall grades for the projects having employed the rubric that was created several years ago. I found that the students put much less effort into completing the written portion of the project. From now on, I will devote computer time and a separate rubric for this task. I think I will also have the students complete this part first. It will help them to organize their thoughts before they go to the actual design. Thus, the grades on the project were low for those students who did not complete that portion of the project. The demonstration of concepts was actually better shown in the design boards. If the students did all parts, their grades were in the 90's. It is only when they didn't complete the written portion that they received 80 or lower.



A



B

Figure 13. Room design board by Anne.

As this was the final unit of the semester, we were able to use the final exam as the written summative assessment. The portion of the exam that covered interior design concepts showed a high rate of success for most of the students. Out of 24 students, 17 received a score of 100%. Three were in the 90's, and four were less than 90. The students were engaged in authentic learning and the success showed in the results. The only time the textbook was used was in looking at examples of scale drawings for the room plan. I used an interactive approach when first presenting the procedure, but on subsequent days, they could reference mine or the textbook examples when practicing themselves.

While all of the teachers use the same end project, the approaches differed in the transmission method to the students. In the approach I used, the students became part of the learning process immediately when they helped demonstrate line, color, rhythm, balance and proportion. These concepts were not covered by the teacher, but used in an interactive approach that engaged the students from the start, they also were not testable concepts that can be measured by any type of written assessment but only by observation. Another non-testable benefit to this

approach was the collaboration in the process of creating the boards. All someone had to do was voice a need for something and there were many hands helping out. They shared each other's strengths to help them make their project better than it could have been had they worked in isolation.

The Journey Ends and We Are Home

As the studied neared completion, I was still curious about the students' perceptions of the past few months. I wondered if they felt as I did--that we had been on a great adventure together. Just like a group of people on a mission to accomplish a goal—like climbing a mountain together, I hoped they feel a new sense of accomplishment. This class that had become excited about learning more, sharing, and caring was now about to leave. As my students were ready to depart, I wanted to recapture all of those wonderful experiences we had along the way. I wanted to keep feeling that sense of accomplishment and the sense of camaraderie. Did my students see the activities as positive experiences? With honesty and a sense of responsibility they completed the questions on a final survey (See Appendix J). Their answers are summarized in Table 2. I created this survey to investigate the students' feelings about the activities that involved hands-on, interactive, authentic learning instead of using more traditional methods. From this I hoped to draw some inferences about the methods of teaching involved in these activities versus a more traditional approach such as

textbook reading, chapter questions, or worksheets. I compressed their answers from five choices into three categories as shown in the columns: high, medium, and low. To explicate this data, I divided the chart into three additional sections. The top portion of the chart includes the activities for which all but six or fewer students rated the activities in the high to medium ranges. The middle section included activities in which all but eight students rated it high to medium, and the lower section included activities rated equally between high to medium and low.

Table 2.

Results of the Final Survey Completed by All Participants After the Final Exam

Activity	Rating		
	High (5-4)	Medium (3)	Low (2-1)
Choice of Projects	24	0	0
Juno and Jacqui Comparison	23	1 did not do	1
Pants or apron	23	1	0
Claymation video	19	1	4
Body Tracing	18	3	3
Color Scheme planning	18	2	4
Parenting Question	16	2	6
Toy or Activity Presentation	16	5	3
Advertisements	15	5	4
Babysitter flyer	14	5	5
Color Scheme Paint	14	8	2
Cat's in the Cradle Analysis	12	3	9
Wiki on Child Development	12	5	7
Safety Flip Book	11	4	9
Learning Style inventory	10	5	9
Oprah Video on Success	9	6	9

In analyzing the top section of Table 2, I realized that the activities were both hands-on and kinesthetic. These tie back to their learning styles where many of them had kinesthetic, relating back to students' learning styles. They were also activities in which the students were able to choose options within a given set of parameters, work collaboratively, and utilize their own talents and creativity.

The middle section includes activities in which students were able to create a product, but the process lacked the element of collaboration. There were also fewer choices in which the students could show their individuality. The students' learning styles were accommodated by the nature of the activities but had fewer kinesthetic opportunities than those in the higher group.

The activities in the lowest section in Table 2 were activities in which the fewest choices in the process were given to the students, where they were able to show the least amount of creativity, and where they had virtually no kinesthetic opportunities. The one activity that required collaboration was the Wiki project on ages and stages of child development. The resulting presentation of their toy or activity was also interactive and authentic. From their rating, they perceived the process in learning the material in this manner less desirable. This is one rating that was the most surprising to me as I thought by their reactions while in the process, that they were thoroughly enjoying the use of the computers to interact while constructing their pages on child development.

DATA ANALYSIS

Data Collection Phase

The process of data analysis began with the very first few days of my data collection. My on the spot reflections were first recorded on a seating chart and then expanded as typed participant observation entries. I reviewed the reflection-in-action and reflection-on-action notes made during and after class. As the days and activities progressed, I explored the recorded student comments and my observations through either reflective memos, which captured my interpretation of the situation or feelings, or analytic memos that included an examination of the field log data (Bogdan & Biklen, 2002; Ely, et al., 1991). As the students produced artifacts such as projects, tests, surveys, or other responses, I collected them in the students' self-made folders I loosely termed their "portfolios." Each student's folder contained his or her own work and responses for each different unit. When I had time at lunch, after school, or at home, I created a chart of responses that included grades for projects or tests, responses to surveys, rubric grades, or other student work. I also used other graphic organizers, reflective memos or analytic memos to organize the individual events which included the

initial survey. The field log, then, served not only as a repository for data but also for my analysis of data. I wrote my reflections as soon after the event as possible to show what I thought about the event or situation that I had earlier recorded.

As I read through the data, I looked at them in differing ways to see patterns emerging in activities or student responses in surveys. In accordance with Dewey's philosophy of educative experiences (1933), I looked at the activities in terms of how much and what kind of learning took place in my classroom. As Dewey reminds us in *Experience in Education*, "Everything depends on the quality of the experience which is had. The quality of any experience has two aspects. There is an immediate aspect of agreeableness or disagreeableness, and there is its influence upon later experiences...Hence, the central problem of an education based upon experience is to select the kind of present experiences that live fruitfully and creatively in subsequent experiences" (p. 27-28).

Additionally, I gleaned much from Paolo Friere's (1970) insight into a dialogic, problem-posing education and used his views as a lens to analyze how students can make personal meaning of the content of the class through experiences that delve into how they feel, what others think through current research, a variety of sources, and expert opinions. Through this lens, I was able to create the activities prior to the study and then later analyze their effectiveness at providing the authenticity in which we both learned more about how we fit in and around the curriculum content. This analysis was done through the

observations of student reactions and student self-analysis in the surveys or discussions. I also used Lev Vygotsky's concept of the Zone of Proximal Development to analyze the results of the rubric for that activity, the test results, or project rubrics.

Quantitative Data Analysis

Additionally, I conducted a quantitative analysis of test results, project scores, and semester grades. In determining a numeric value for the degree to which learning occurred, I utilized test scores, other course grades, and scores received on projects. I will report upon these data in the findings section. Determining the mean, median, and mode of test scores helped me to see the level of learning that occurred for the class in general.

Figurative Language Analysis

Figurative language can offer another way of looking more deeply into qualitative data. It can act as a button on a camera that brings the lens in for a closer look. It offers the researcher and the reader a more complete picture. Lakoff and Johnson's *Metaphors We Live By* (1980) suggests that figurative language such as a metaphor helps one to understand a concept more deeply by showing a connection of an action that is not obvious to one that is visible or a connection between a concept we do not understand to one that we do. Saban (2006) in his review essay "Functions of a Metaphor" in *Teaching Education* agrees that by using figurative language such as a metaphor in the analysis of

data, the teacher will begin to see a deeper meaning through a personal connection into professional thoughts, feelings, and beliefs. In this regard, in my data analysis, I have looked at several pieces of figurative language I utilized in my reflections to find a deeper meaning than may have been initially apparent. The deeper meaning was both to benefit me in my quest for continual personal growth as well as how I would continue to conduct class as a professional, which ultimately benefits the students.

Data Coding, Bins, and Themes

Concurrently, I utilized the process of coding the data to help organize and process the multiple layers of data being collected. Coding is an analysis process in which data are sorted by a designated scheme into categories. The first step, according to Bogdin and Biklin in *Qualitative Research in Education* (2002) was to search the data for commonalities or patterns that emerge. Next I wrote phrases in the margins of my field log to represent or code these patterns. Bogdan and Biklin (2002) refer to these as “coding categories”. I then organized these categories into larger units called bins, (Ely 1991); (see Figure 14). From these bins emerge the overarching concepts or themes of this teacher action research study. This process was a fluid process in which some coding was done during the data collection phase of the process and further coding was done once the data were gathered. The theme statements (see Figure 15) that emerged served two purposes: they helped guide further data collection by highlighting holes or gaps

and they helped me to determine what I had learned through my triangulation of data (Hendricks, 2006).

CODES and BINS

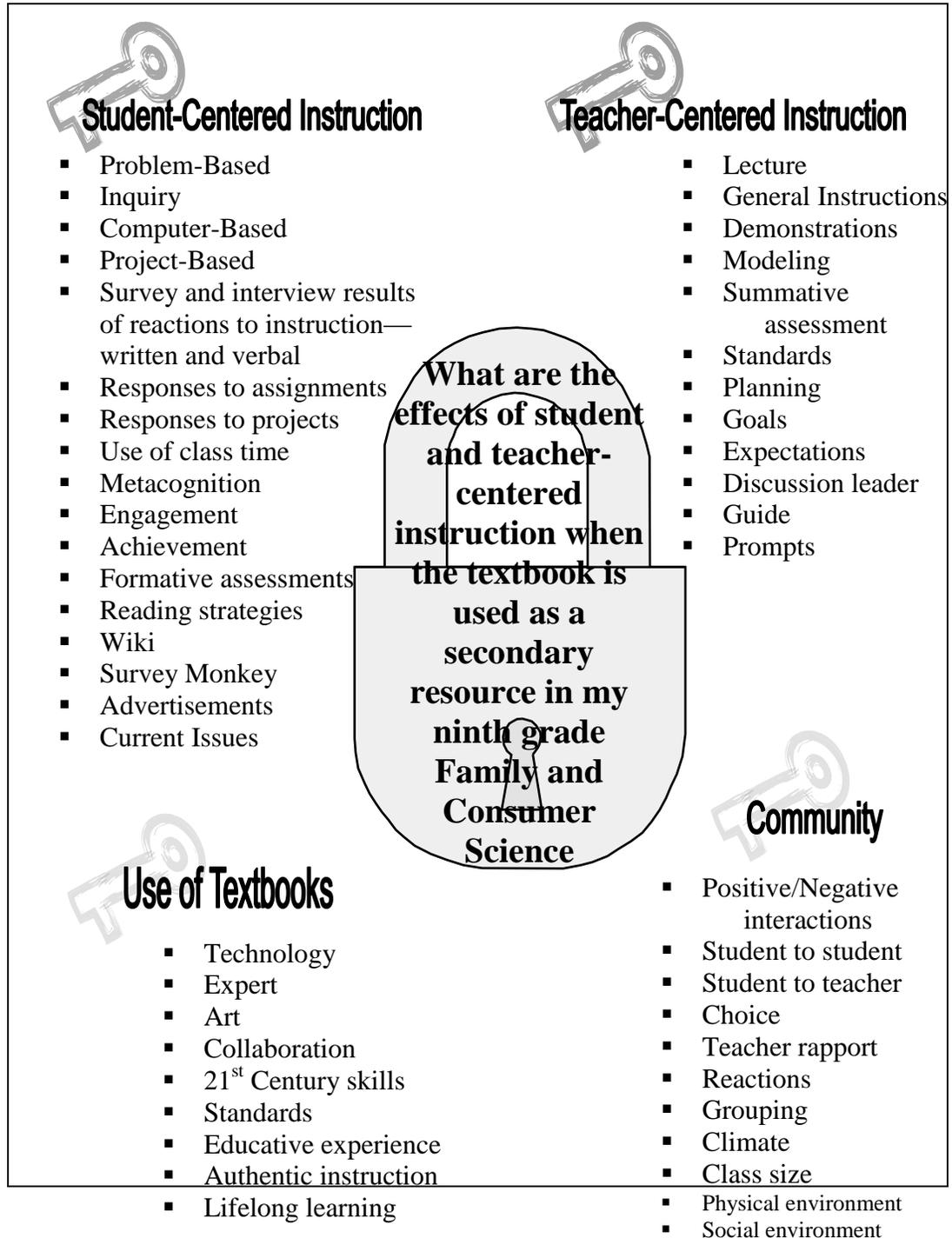


Figure 14. Codes and bins graphic organizer.

THEMES



 Textbook use can be minimal in the Family and Consumer Science, as methods involving more active learning help students effectively achieve the goals of the class.

 A strong sense of community offering student choice can lead to engagement and life-long learning.

 Teacher-centered instruction is useful in the classroom during the scaffolding process to assure a strong foundation from which students can build.

 Student-centered instruction offers students varied methods in which they are supported in their individual, social, and academic needs.

Figure 15. Theme statements.

FINDINGS

Re-articulation: Goal of Study

The title “When lightening the book bag changes the look of learning” encapsulates the goal of my study: to discover the effects of student and teacher-centered instruction while utilizing the textbook as a reference rather than the only curriculum source in my ninth grade Family and Consumer Science classroom. The study looked into how the students’ needs can best be met by putting the *art* back into teaching, allowing it to emerge through educative experiences and affording students opportunities for more choice in the creative and innovative use of a variety of resources. As I collected and analyzed the data, four main themes emerged. The following discussion will highlight each theme in the context of the literature I reviewed prior to the study and in tandem with the works of Delpit (2002), Dewey (1938), Vygotsky (1978), and Freire (1970) that I read while gathering and analyzing data for the study.

Active Learning without a Textbook

Textbook use can be minimal in the Family and Consumer Science classroom, as methods involving more active learning help students effectively achieve the goals of the course.

The notion of lightening the book bag has both literal and figurative meaning in this study. The activities used in it were designed to be authentic or real-world experiences, educative (Dewey 1938), and process oriented. This means that the students were engaged in what I intended to be authentic learning opportunities. In this student-centered environment, the textbook was used as a reference as needed, taking the weight out of the students' book bags. I worked to guide the students through a series of educative experiences designed to help them become lifelong, 21st Century learners. John Dewey (1938) explains that an educative experience is not only one in which students learn but also one that provides opportunities for students to be involved in a variety of experiences that will evolve into further learning. Frank Smith (1998) adds to this by stating that learning is or should be a natural process that involves interacting with those around you in activities in which there is interest and basic comprehension. Lifelong learning for the 21st Century involves not just knowledge acquisition but resource management skills and the power to attain higher order thinking skills (Metiri, n.d.).

The sewing unit served as a prime example of how to structure a class without a textbook as the goal of it was to offer experiences in both hand and machine sewing. Other sewing class goals that were reached through hands on project based learning included practical skills in caring for clothing which included, pressing, washing. The construction of the garment of their choice, the

relationship of colors in the fabrics, the fiber choice, and style were also goals reached. The students experienced the unit through the projects of the candy corn, pants or aprons they created. They practiced color scheme identification and learned about fibers when they prepared their fabric for the projects they completed. Bigger than just the skills they learned in the sewing unit were the key ideas found in other units that promoted deeper thought. The discussions we had on teen pregnancy, on parenting, or the debate on the significance of the types of discipline are primary examples of significant learning that is part of a viable curriculum plan that has global significance with a variety of viewpoints from which students developed their own. In both the initial and final surveys, the students agreed that the textbook was not as effective for their own learning as activities that allowed them to create a product through processes that are interactive and more kinetic. The final survey results (see Table 2) indicated that the top rated activities were those that were collaborative or offered a kinesthetic component such as the body tracing activity to learn more about personal development, the Juno and Jacqui teen pregnancy comparison to their decision making skills, and the color scheme activity. Also important to them was the final interior design project in which they experienced the elements and principles of design through activities that helped them apply that material to the creation of the final design project. There were two activities that utilized the textbook as reference. One was the advertisement brochure in which they used a reference

page in the text to review the parts of an ad that were nicely illustrated on a diagram. The second was a chart that held the safety guidelines they used to put their material together for their safety flip books.

Many school curricula are based on the scope and sequence of a textbook but it is not until one sees the personal connection with both local and global perspectives that the experiences the students encounter become authentic. Students can make personal meaning of the content of the class through experiences that delve into how they feel, what others think through current research, a variety of sources, and expert opinions. When the students created the claymation figures, for example, they used what they think of themselves to personify a character, then further utilized that observation in how that character relates to the other characters in their videos. Another example was in the use of the Dr. Seuss book to help them bring childhood memories to light as they looked into how they saw themselves and again, as they created their life-sized bodies. The discourse about teen pregnancy was the best example of personal meaning making as students talked about how they would make such a decision, how their parents would react and how their lives would change. As the literature suggests, efficient use of textbooks depends on the knowledge of the teacher. If the teacher relies on the information to be current or accurate, outdated texts may perpetuate false ideals for the students (Graham Center, 2004). Smith and Wilhelm (2006) add that traditional use of textbooks does not incorporate the nature of inquiry

through the connections to students' lives. Many do not allow for debate opportunities, real world problem solving. Nor do they show empathetic understandings of differing perspectives (Smith and Wilhelm, 2006). Both the teachers and the students are participants in the educative experiences.

The summative assessments were indicators that learning took place without the textbook. Each unit test was designed by the department to discover mastery level of the skills and knowledge level of all the students that take that class regardless of the teacher or their teaching style. These common assessments are administered as a unit test and scored with the same point value. For each of these tests, the students in this study reached a high mastery level with most scores above a 75, and averages in the 80's.

Formative assessments did just what they were designed to do, to give both the students and me an indication of how well they are progressing in the acquisition of a skill, idea, or process. The Gallery Walk for both the advertisement and the interior design project served to highlight the reviewers understanding as well as the on being evaluated as the student must have a grasp of the material to comment or rate the work fairly. Since summative assessments in this department were common for all sections of this class, the measure of mastery is the same. I found the test results for all four units to be those of mastery level in the A and B range despite having removed the textbook as the only resource. What substituted for the text were resources such as websites, teacher

background, others in the class, and other media. With planning and implementation, the student-centered classroom can be filled with rich, lifetime experiences.

Engagement, Student Choice, and Community

A strong sense of classroom community in which students are offered meaningful choices can lead to engagement through authentic discourse.

Community may be defined as an environment for optimal student learning to take place. It is a climate that affords students opportunities to utilize materials, ideas, values, predict consequences, create plans of action, and look at relationships. Working to build a sense of community begins the minute the students begin entering the room for the first time and continues throughout the year. After introductions, I began the first activity, BINGO, in which we were all participants. The goal was to create a feeling of camaraderie, trust, and begin some personal connections. The get acquainted BINGO game (Appendix D) was also important to offer a chance for the students to interact with me and each other in a non-threatening interchange. As discussed in the Adventure Story, it was successful in the goal of creating a fun, interactive, trusting, place where the students can feel like they will have some freedom within limits set by the teacher. Freire (1970) states: “Through dialogue, the teacher-of-the-students and the students –of the-teacher cease to exist and a new term emerges: teacher-student with students-teachers. The teacher is no longer merely the-one-who-

teaches, but one who is himself taught in dialogue with the students, who in turn while being taught also teach. They become jointly responsible for a process in which all grow” (p. 80).

If one thinks of teaching as an opportunity for growth, the classroom becomes a very different place than if the teacher sees herself as the omnipotent conveyor of truth. In a Freirian classroom, the climate of the classroom would be highly active and filled with positive discourse between the teacher and students and between the students themselves. In my study, climate building activities such as the personality claymation movies and the body tracing activities were built in at the very beginning of the year. Both of these experiences were open and interactive, helping us to build the rapport necessary for the frank and open classroom discourse that would occur later in the course. As the study progressed, other activities such as painting the fabric or outfit in a chosen color scheme, the ages and stages Wiki activity site, Juno/Jacqui discussion on teen pregnancy, the Baby Think It Over project, the sewing projects, and the final design board project all evolved into positive collaborative interchanges where students exchanged ideas either verbally or electronically. This also afforded me the freedom to interact directly with all of the students who needed assistance as well as strike up conversations and share something of myself. As the teacher, I could gently nudge a conversation, model compassion, or slide in a comment if re-direction was necessary to mold the experiences into educative ones.

Student learning was clearly impacted by the types of experiences I provided for student discourse. During our unit on child development, for example, I brought up the topic of teenage pregnancy and asked the students to think about and write about what their families would do if they told them they or their girlfriends were pregnant. There was a discussion that ensued that I didn't want to stop. Students were animated and introspective as they brought up points that I had not entertained. They were engaged in a discussion that brought many of them to very high levels of cognition that could not have been reached had they not had that opportunity. Smith and Wilhelm (2006) remind us that students need to be engaged in meaningful discourse that allows them to "learn how to ask questions, find information, read, develop new information, organize and analyze it, represent, share and revise it, then use it in the world..." (p. 79). Although the students in my high school, unlike those that Smith and Wilhelm describe, are predominantly middle and upper middle class, there are many who would fall under the category of oppositional learners, especially those who opt to take classes in the Family and Consumer Science Department based on the tracks to which they are assigned in the "core classes." Enrollment in our department's courses comes disproportionately from students who take on-level or bottom-track classes and express little interest or desire to go on to a four year college. School for many of them is all about how soon they can get out. Clearly, to reach an oppositional learner, the class must be engaging yet challenging or authentic

enough to pique their interest. Lisa Delpit (2002) states, “the object is not to lower standards or just teach what is interesting to the students, but to find the students’ interests and build an academic program around them...When student interests are addressed in school, they are more likely to connect with the school, with the teacher, with the academic knowledge, and with the school’s language form”(p. 45). Delpit (2002) also suggests that teachers should consider students’ interests when developing curriculum but not limit the scope to just what the students say interests them. Additionally, teachers should not lower standards to accommodate the students’ interests, but rather keep standards high as they utilize what they know about each student to create an environment in which connections from home to school and home again can be made by all students. In the sewing unit, when they were given a choice, the choice was not to make anything for the main project, but to choose between two, the apron or the pants. The students appreciated having that choice but the skills for each parallel one another so my goals for the students were met and they felt a sense of ownership. Additionally, when the students were choosing a toy, game, or other activity to present that met their age and stage of child development the level to which I asked them to achieve was high but they were given room to move in a direction that interested them.

The more I found out about the students, the more our classroom became a learning community for all of us. One student explained, “I like this class more

and more each day. Finally someone listens to what we want!” He responded to my suggestions that if he wanted to make a hat for a hat day fundraiser the following day, he could do so. Now, I didn’t lower my standards or scrap my learning goal but I re-arranged how they would achieve the goal. Students worked quite diligently and learned to create a pattern, coordinate different fabrics, and feel a sense of ownership, which they may not have had the opportunity to do if I had not opened up the assignment.

Engagement can be seen in the eyes of the students that are quietly watching a demonstration on sewing techniques, in the smiles and greetings of students entering and leaving a classroom. It can reside in a group of students conferring on the best application to use in creating a flyer. Engagement may be enthusiasm, rapport, work ethic, or the desire to begin projects before the bell even rings. Engagement was evident in the Claymation activity in which students explored, through the use of clay and technology, their personality and how it relates to their environment. The students were engaged in discourse, created a plan, and were involved in their own learning process. Sarason (1990) describes this as a technique to improve the learning environment. Later in the study, they went on to learn more about each other and interacted with each other as the ages and stages presentations were completed. They used formative assessment tools like the gallery walk rubric for the advertisements and the interior design projects. They were excited and task oriented when completing the formative assessments

where they observed the skills having been applied by fellow students in the projects they were evaluating. Another look of engagement was evident in the activities that allowed for both movement and expression, student choice, and collaboration-- just as a choir sings in harmony and parts using their own voices to collaborate in a final product. What that meant then, was that the collective excitement the class felt as we experienced the myriad of activities is the collective community we built together and the relationship between us. It was so important that even if they didn't have fun doing the activities, we worked together as a family to get the job done. The job to which this statement refers was the skills and concepts the students take with them into the next—whatever that means for them. They walked away with the big ideas as evidenced by the formative and summative assessments along the way.

Teacher-Centered Instruction

Teacher-centered instruction is useful in the classroom during the scaffolding process to assure a strong foundation from which students can build.

Defining how teacher-centered instruction differs from traditional instruction is key to understanding the meaning of this theme statement. The definition may be seen in the role the teacher plays. The role of the teacher in a traditional classroom is that of the “sage on the stage,” a metaphor used by educators to describe one who delivers information to the students. Traditionally, teachers *cover* material and hold students responsible for memorizing and

repeating back information deemed important either from a textbook or guide adopted by a school or school district. Freire (1970) aptly describes this as the banking model in which the teacher decides what he or she knows about a subject and what the students should hear. Freire points out that in this model the students do not use any type of metacognition. The material to be memorized belongs to the teacher. In a teacher-centered classroom, the teacher is the knowledge center from which the students are receiving the meaning of the material readymade. Although the teacher may still be the sage, at times in an inquiry-based classroom she is not on the stage. During this time of scaffolding or teacher-directed guidance, students are presented ideas through demonstration, interactive notes, or other interactive mini-lessons. Within the units I used for the study, there were mini-lessons that led up to the activities that were analyzed in the data. Mini-lessons included instruction on how line creates visual motion, or how a painted outfit illustrates the use of a color scheme, or how to use a picture as an inspiration piece. These were examples of mini-lessons put in place to offer a basis for the students to build from when creating their own room designs. One of the factors that makes this different than the banking model is the interactive nature of the lessons. While they afford the students opportunities to build a learning base from which they can create a new idea or product, they also serve to inspire, and relate the lesson to the individual student through student to teacher discourse as in the interchange we had in class about how stripes create an illusion

of height if they are vertical or width if horizontal. An important part of the findings that needs to be highlighted here is that an effective classroom that provides a close community of active learners is not traditional, but provides a balance of teacher-centered experiences with student-centered ones. Vygotsky (1978) describes learning occurs when those that are more knowledgeable interact with the students in their zones of proximal development ensuring that their background knowledge is tapped as in the mini-lessons that led up to the development of the babysitter advertisement where I created an opportunity for all of the participants to share their past experiences and integrate new material before they began to create their advertisement.

The difference in traditional and teacher-centered is again subtle but important to note. The key is whether the students are engaging in experiences that have enduring qualities. These qualities will be as important to them now as they will be in the future—outside the walls of the classroom (Dewey, 1938). In the advertisement the students created, for example, teacher-directed mini lessons helped students to understand the concept of consumerism. The lessons consisted of an outline of notes taken on a graphic organizer that was a copy of an advertisement in which each part was explained. The students listened and wrote additional information they thought was important. Then they practiced using the parts of an ad by explaining to each other. Once I had seen they did well on the formative assessment, we set out for the more independent project of creating

their own ad using the skills they had just developed. Although this lesson could have been taught inductively, with the students creating the ads after they themselves looked into examples and came up with the parts of the ad they felt were important, I had to limit the time element at this part of the learning process to leave time for their own ad creation. The point of the activity was to engage in an advertising venture for a product to help the students become more aware consumers. This was the enduring quality of the lesson that needed front-end support to happen. Modeling reading skills is a prime example of teacher direction that aids the students in other classes and outside the school walls. An example of one of my favorite video viewing devices is that of the graphic organizer that uses two vertical columns on their paper, evidence and interpretation of a question posed beforehand as described in the explication of *The Devil Wears Prada* movie clips. While the movie showed a Hollywood version of the fashion magazine world, the students utilized metacognitive skills to compare and contrast reality versus fiction, decision making processes, and goal setting, all of which have life-long applications. During viewing of the Oprah Winfrey show on success, the students were also able to use of the evidence and interpretation chart. Later on the assessment, they were able to derive meaning from the video and personalize the definitions they heard by comparing the guest speakers on the show to their definitions of success, which was the class objective for this task. The examples highlight the times when it is valuable for the teacher

to build a structure within students' zones of proximal development, utilizing the students' background knowledge (Vygotsky 1978) on which the students can build a product even higher and stronger. Teacher-centered instruction offers this scaffolding process to build practical skills such as sewing and cooking along with metacognitive processes that have qualities that can be applied to situations in and outside the classroom. Offering both teacher and student-centered instruction creates a balance of educative experiences for all participants.

Student Centered Instruction

Student-centered instruction offers students varied methods to support their individual social and academic needs, leading to more engagement and academic success.

The methods of instruction in the studied units offered many opportunities for the students to become actively involved in the learning process. A student-centered classroom is one in which the primary responsibility of a teacher is to help students learn, inquire, problem-solve, cope with emotional needs and tensions as well as other needs as they arise in the students' lives (Trow, 1960; Whithall, 1975). Teachers ask questions and funnel experiences into a manageable process by which they can find answers to questions and solutions to problems (Brown 2008). The most notable example of this type of learning occurred within the Child Development Unit when the students used computers to create a page on the Wiki site to piece the ages and stages of child development together.

Students were both engaged and excited not only to use a new computer tool for uncovering material necessary for the product they were to develop and present but also collaborated with their classmates while doing so. They were able to work at their own pace, reading level, and socialize at the same time. The kinesthetic learners could physically move around if necessary. The auditory learners could discuss a thought with another student or with me. Socially they were able to communicate as they would in a chat room online. What is important to note is the fact that they realized the objective of the lesson, which was to appreciate that in each stage of development there are five areas (physical, intellectual, emotional, social, and moral, PIES) and these all need to be considered when supporting a child. What resulted from this experience was a few days of play examples the students presented with the class as the children of that age. All of us were engaged in the learning process as the students demonstrated how caregivers could lead their charges into higher learning. Simultaneously, the students were also learning through their own demonstrations the objectives of the entire lesson. The resulting grades for this project were on an average in the high B or A range and the test scores on this portion of the unit were nearly perfect, indicating a high success rate. To earn these high grades, they were expected not only to recall the developmental stages but analyze the effectiveness of a toy or other play experience. They were asked to engage in creating their own experience with a child of the age they chose while they

engaged other students in the play experience to highlight the developmental areas to which that play experience would address. In what Dewey (1938) would call a progressive or student-centered classroom, the students are actively engaged in solving problems to provide truly educative experiences in which the students are researching answers, engaging in discourse relevant to the task, formulating hypotheses, consulting with the teacher, discovering the underlying concepts, and uncovering the possible answers to questions posed by both teacher and student. Learning in a student-centered classroom is a process by which the teacher utilizes his or her expertise in cognitive processes to effect student learning in the zone of proximal development by expanding the size of the inner circle of knowledge (Vygotsky, 1978). The students are not depositors, as in Freire's banking system, to be filled up with information only to be accessed when the teacher needs to make a withdrawal, but rather they are directly involved in the process of learning. Finally, in reviewing the end of semester survey, the activities that involved more creativity, more choice, and addressed the diversity of the students learning styles, the higher the students rated them. When they explicated their thoughts through casual interviews, they explained that they cannot wait to sign up for more classes in the Family and Consumer Science department so they can learn more about Interior Design, Sewing, Foods, or Child Development. Dewey states in *Experience and Education*, "The most important attitude that can be formed is that of desire to go on learning" (p. 48).

FINAL REFLECTION

Educational research needs to be used to make improvements in ourselves, the students, the classroom, and the schools in which we teach and learn. I have already had the opportunity to apply what I learned from the themes that came out of this study to my newly created class entitled, *Science in the Kitchen*. I designed this class to be completely student-centered to help participants apply science concepts in a kitchen setting. The science standards are reached through examination of the students' questions they have about kitchen principles and science related concepts. The current class is an elective open to students in grades 10 -12, with the cap being 10 students. When the class began, we did a lot of talking about students' expectations and my thoughts about how the class would work. We began a file with questions they wanted to explore. They have since added to it, so we now have more questions than we have time to answer fully. An interesting observation I made was how close my idea of what would constitute a viable curriculum that reaches the many high science, math, and family and consumer science standards closely matched those of the students.

One example we explored was their question about yeasts. They wondered what they were and why they worked differently in different circumstances. They designed an experiment to test one factor at a time. They also researched the information they needed to get background information and shared it with their lab groups. Their engagement was evidenced in their desire to

test more each day. They have verbalized their desire to get to class and have expressed their belief that more high school classes should be set up in this way. The experiences are all educative, the standards kept high, and interest just as high.

One challenge that comes up in high school elective classes with seniors in them each spring—and especially 4th block is the fact that very little piques and holds their interest. The senioritis effect is quite a concern, especially in relation to many of the senior students who choose electives in our department. Their original motivation for taking the classes we offer is generally to get a fairly easy grade without having to do much homework. However, they are usually surprised at how much work is involved in the classes. This is one of the questions the study has led me to ask myself. How can a student-centered classroom better engage oppositional learners than a more traditional-based course? To find out, I have created a more student-centered inquiry based class in which textbooks are not assigned and other resources are utilized as expert sources. I also share my expertise and knowledge in guiding students through setting up experimental procedures in which they test their questions. We use lab groupings and usually test the same question each class period but test different variables in each of the respective lab groups. There are days that we spend half of the class at the computers researching the topics before writing material lists and checking supplies. I usually do the shopping with our department budget, but if students

want to test additional variables, they are more than willing to bring in the needed materials. One example occurred recently when students asked about dying eggs for Easter. I showed them how to hollow a raw chicken egg by making holes at each end and blowing out the yolk and albumin, rinsing the eggs and letting them dry. They wanted to know more about the kinds of dyes that would work best. We went outside to gather natural items like flowers and grass, came back to extract the color by boiling in water and tried the broken egg pieces for tests. Some of the colors were surprisingly bright. What they found interesting is what they may have at home to use for additional color. One student came in this morning with a purchased bouquet of flowers to use for dye. We will then use the same dyes for tie-dying t-shirts. I know that they will eventually see that vegetables also make great dyes, and I will help them explore how natural dyes used in the past connect to the commercial ones available today.

In my next research cycle, in addition to applying the findings of this study to my *Science in the Kitchen* class, I have begun to consider the portions of the study that worked well and those that did not. First, I would like to create more inquiry-based experiences for the students. The one activity on parenting I used in the study in an inquiry approach did not result in a resounding educative experience, so I would like to establish a more effective design for that experience in future sections of *Introduction to Family and Consumer Science*. Also, I would enjoy exploring a more student-centered approach in more of the activities for all

of the Family and Consumer Science classes. While some activities needed the initial support of the teacher, they did not have to continue to be teacher-directed. The big question I still wrestle with is how much can one realistically change and still maintain that balance of student freedom and choice vs. reaching the standard within a given time constraint? Finally, I would like to help teachers who want to break the bonds of commercially prepared curriculum guides and bring the artistry into the classroom to provide educative experiences for all students.

Further, I would like to explore the reluctant learner in more detail to address not only seniors but students in all grades. There are many students in my school who seem to slip between the cracks. They are unmotivated by some current teaching practices and disengaged by the curriculum offered or the constraints of the school. I would like to further explore student class choices, their attitudes, and achievement throughout high school. I would like to find what factors can be changed to help create a place for them to thrive and become the people of their dreams.

So to that end, as a lifelong learner myself, I will continue to be the reflective practitioner I was during the study well after the thesis is published. My short-term goal is to continue to hone my skills to create the most educative experiences for all of my students. My long term goal is to help other teachers create educative and authentic experiences for their students across all disciplines.

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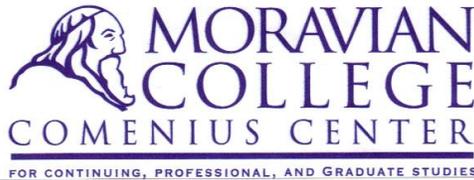
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APPENDIXES

APPENDIX A: PRINCIPAL'S APPROVAL OF STUDY



September 3, 2008

Dear [REDACTED]

This letter is to request your approval for a study to be completed in my Introduction to Family and Consumer Science classes, beginning September 8, 2008, and ending December 22, 2008. I am completing my Master of Education degree at Moravian College and currently enrolled in MEDU 702: Reflective Practice Seminar. The goal of the program is to enable teachers like myself to master classroom practices through action research. As a step toward that goal, I will utilize current research on best practices and qualitative analysis of student observations to complete my own study in my classroom.

The study will entail the observation of student interaction and academic performance to activities that will allow inquiry, hands-on, project based instruction. Some of the activities will allow for formulating questions and designing methods of solving problems through collaboration and co-research and rely on technology in all of these endeavors. The primary resources will come from current literature and teacher made sources. This will enhance the already rich curriculum by offering differentiation by process as well as instruction in clear alignment with [REDACTED] District's goals. I anticipate the every student in the classroom will benefit from the process.

Prior to beginning, approval to become a study participant will be sought from both parents and students with no penalty for those not consenting. All of the approved students will be granted pseudonyms, and no identifying information will be shared in the writing of my study and its findings. **It is imperative that everyone is clear that all students will complete the same activities whether or not they are serving as research participants.** Students and or parents have the right to end participation in the research study at any time without penalty.

If there are any questions, comments, or concerns, I may be reached at nsawyer [REDACTED] or by phone at [REDACTED]. My faculty sponsor is Dr. Joseph Shosh. He may be reached by phone at 610.861.1482 or via email at jshosh@moravian.edu.

Note: On parent's letter: "[REDACTED] has given his permission to conduct this action research study."

Sincerely,

Nanette M. Sawyer

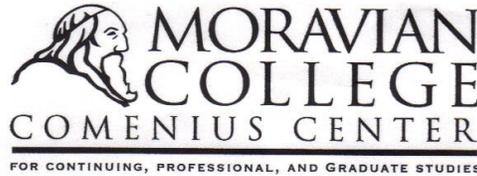
I attest that I am the Principal of Nazareth Area High School and Nanette Sawyer is the teacher participating in this research study. I have read and understand the consent form, and received a copy. Nanette Sawyer has my permission to conduct teacher action research at Nazareth High School in Nazareth, Pennsylvania.

Principal's Signature: [REDACTED]

Date 9/3/08

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APPENDIX B: PERMISSION LETTER TO PARENTS



September 5, 2008

Dear Parents and Students,

This letter is to request your approval for a study to be completed in my Introduction to Family and Consumer Science classes, beginning September 8, 2008, and ending December 22, 2008. I am completing my Master of Education degree at Moravian College and currently enrolled in MEDU 702: Reflective Practice Seminar. The goal of the program is to enable teachers like myself to master classroom practices through action research. As a step toward that goal, I will utilize current research on best practices and qualitative analysis of student observations to complete my own study in my classroom.

The title of the study is, Spelunking Further than the Textbook, and will entail the observation of student interaction and academic performance in activities that will allow inquiry, hands-on, project based instruction. The goal of the study is to seek effective instructional methods that afford students opportunities to use resources other than textbooks for information acquisition and processing. The activities are designed to allow for formulating questions and designing methods of solving problems through collaboration and co-research. The primary resources will come from current literature and teacher made sources. This will enhance the [redacted] entiation by process as well as instruction in clear alignment with [redacted] anticipate the every student in the classroom will benefit from th[redacted]

All of the approved students will be granted pseudonyms, and no identifying information will be shared in the writing of my study and its findings. It is imperative that everyone is clear that all students will complete the same activities whether or not they are serving as research participants. Only data from participants will be used in the research study. Students and or parents have the right to end participation in the research study at any time without penalty.

If there are any questions, please contact me at [redacted] may contact me at [redacted] Office or the school [redacted] assistance, by phone at the [redacted] sponsor is Dr. Joseph Shosh. He may be reached by phone at 610.861.1482 or via email at jshosh@moravian.edu.

The school Principal [redacted] given his permission to conduct this action research study and may be reached by phone at [redacted]

Sincerely,
Mrs. N. Sawyer
Mrs. N. Sawyer

I attest that I am a parent or guardian of _____ and give my permission for my son/daughter to participate on this study. I understand that all participants will remain anonymous and pseudonyms will be used to mask individual student identity.

Parent/Guardian's Signature _____

Student Signature _____ Date _____

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APPENDIX C: ADVERTISEMENT GALLERY WALK

An assessment technique in which the students move from one product to another to assess the work using the criteria on the form.

Evaluate each ad

Name of evaluator _____

Product name _____

Ad creator _____

Creativity? _____ 5 4 3 2 1

Colorful

Neat/balanced on the page

Eye-catching

Represents product

Description of product accurate and enough info 5 4 3 2 1

If you wanted this product, would the ad change your mind? 5 4 3 2 1

Total.....

APPENDIX D: LEARNING STYLES INVENTORY, PAGE 1

LEARNING STYLE INVENTORY

LEARNING STYLE INVENTORY

To gain a better understanding of yourself as a learner, you need to evaluate the way you prefer to learn or process information. By doing so, you will be able to develop strategies which will enhance your learning potential. The following evaluation is a short, quick way of assessing your learning style. No studies have validated this inventory. Its main benefit is to get you to think about yourself, to consider learning alternatives; not to rigidly classify you.

This 24 item survey is not timed. Answer each question as honestly as you can.

NOTE! This page will not work with AOL's browser. Please use IE or Netscape version 4 or better.

Instructions: Click on the appropriate button after each statement. After answering all questions, click on the **Determine Style** button below.

QUESTIONS	Seldom	Sometimes	Often
1. Can remember more about a subject through the lecture method with information, explanations and discussion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Prefer information to be presented the use of visual aids.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Like to write things down or to take notes for visual review.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Prefer to make posters, physical models, or actual practice and some activities in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Require explanations of diagrams, graphs, or visual directions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Enjoy working with my hands or making things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Am skillful with and enjoy developing and making graphs and charts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Can tell if sounds match when presented with pairs of sounds.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Remember best by writing things down several times.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Can understand and follow directions on maps.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Do better at academic subjects by listening to lectures and tapes as opposed to reading a textbook.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Play with coins or keys in pockets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Learn to spell better by repeating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<http://www.personal.psu.edu/bxb11/LSI/LSI.htm>

APPENDIX D: LEARNING STYLES INVENTORY, PAGE 2

LEARNING STYLE INVENTORY

the words out loud than by writing the word on papers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Can better understand a news article by reading about it in the paper than by listening to the radio.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Chew gum, smoke, or snack during studies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Feel the best way to remember is to picture it in your head.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Learn spelling by tracing the letters with my fingers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Would rather listen to a good lecture or speech than read about the same material in a textbook.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Am good at working and solving jigsaw puzzles and mazes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Play with objects in hands during learning period.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Remember more by listening to the news on the radio rather than reading about it in the newspaper.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Obtain information on an interesting subject by reading relevant materials.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Feel very comfortable touching others, hugging, handshaking, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Follow oral directions better than written ones.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

After answering each question, click on the button below.

ABOUT THE THREE STYLES

If you are an AUDITORY learner, you may wish to use tapes. Tape lectures to help you fill in the gaps in your notes. But do listen and take notes, reviewing notes frequently. Sit in the lecture hall or classroom where you can hear well. After you have read something, summarize it and recite it aloud.

If you are a VISUAL learner, then by all means be sure that you look at all study materials. Use charts, maps, filmstrips, notes and flashcards. Practice visualizing or picturing words/concepts in your head. Write out everything for frequent and quick visual review.

If you are a TACTILE learner, trace words as you are saying them. Facts that must be learned should be written several times. Keep a supply of scratch paper for this purpose. Taking and keeping lecture notes

<http://www.personal.psu.edu/bxb11/LSI/LSI.htm>

APPENDIX E: SURVEY MONKEY SURVEY QUESTIONS, PAGE 1

<p>1. Default Section</p> <p>Add Question Here</p> <p>Edit Question Move Copy Delete Add Logic</p> <p>1. What is your gender?</p> <p><input type="radio"/> Female <input type="radio"/> Male</p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete Add Logic</p> <p>2. How did you decide to take this class?</p> <p><input type="checkbox"/> Guidance placed me without my choosing.</p> <p><input type="checkbox"/> I chose it because I liked middle school FCS classes.</p> <p><input type="checkbox"/> I chose it because I thought it would be easy.</p> <p><input type="checkbox"/> I want to apply it to my career goal.</p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete</p> <p>3. So far, are you glad you took this class?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete</p> <p>4. Would you give me some examples of what you like and what you don't like? Hint: Think about things that can be changed in the class.</p> <p><input type="text"/></p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete Add Logic</p> <p>5. Who is the driving force behind how well you do in school?</p> <p><input type="checkbox"/> Myself</p> <p><input type="checkbox"/> Parents</p> <p><input type="checkbox"/> Other family members</p> <p><input type="checkbox"/> Friends</p> <p><input type="checkbox"/> None, I don't care how well I do</p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete</p> <p>6. Describe your method of remembering and completing homework.</p> <p><input type="text"/></p>	<p>2. Classroom Learning</p> <p>Thank you for continuing! You are doing great!</p> <p>Add Question Here</p> <p>Edit Question Move Copy Delete Add Logic</p> <p>1. What is the method of instruction from which you best learn?</p> <p><input type="checkbox"/> Discussions</p> <p><input type="checkbox"/> Activities</p> <p><input type="checkbox"/> Text reading and answering questions</p> <p><input type="checkbox"/> Cooperative projects</p> <p><input type="checkbox"/> Worksheets</p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete Add Logic</p> <p>2. Do you pay more attention in a class that offers choices of activities to complete?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete</p> <p>3. Please explain your idea of "a choice of activities", as asked in the previous question.</p> <p><input type="text"/></p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete</p> <p>4. To what extent do teachers allow you to collaborate in solving problems posed in class by yourself or other students?</p> <p><input type="text"/></p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete</p> <p>5. What is a question you would like to explore before this class is over?</p> <p><input type="text"/></p> <p>Add Question Here Split Page Here</p> <p>Edit Question Move Copy Delete</p> <p>6. What are your thoughts on the use of textbooks in any class?</p> <p><input type="text"/></p>
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APPENDIX E: SURVEY MONKEY SURVEY QUESTIONS, PAGE 2

3. Your Learning

Thank you again for being so honest!

Add Question Here

Edit Question Move Copy Delete Add Logic

1. Have you thought about your own learning style?

- Yes
- No

Add Question Here Split Page Here

Edit Question Move Copy Delete

2. How do you learn best in school?

Edit Question Move Copy Delete

3. How often do you raise your hand and ask questions in class? And, does it matter which class it is or who is in that class?

Add Question Here Split Page Here

Edit Question Move Copy Delete

4. Rate the importance of each skill to learn before leaving high school.

	Very Important	Kind of Important	Not so much!
Study habits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Writing essays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reading comprehension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problem solving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Following directions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working with other students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asking questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting along with people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asking for help	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add any others you feel are important

APPENDIX G: BABYSITTING BROCHURE RUBRIC

Teacher Name: **Sawyer**

Student Name: _____

CATEGORY	4	3	2	1
Writing - Grammar	There are no grammatical mistakes in the brochure.	There are no grammatical mistakes in the brochure after feedback from an adult.	There are 1-2 grammatical mistakes in the brochure even after feedback from an adult.	There are several grammatical mistakes in the brochure even after feedback from an adult.
Spelling & Proofreading	No spelling errors remain after one person other than the typist reads and corrects the brochure.	No more than 1 spelling error remains after one person other than the typist reads and corrects the brochure.	No more than 3 spelling errors remain after one person other than the typist reads and corrects the brochure.	Several spelling errors in the brochure.
Personal Info	Reasonable price , Availability, Contact Info	All three present, unreasonable price	2 of three present	1 of three present
Qualities	Affection, patience, self-control, consistency, alertness, energy	5 of six present	4 of six present	Fewer than 4 present
Skills	Communication, self-control, conflict resolution, decision making, problem solving, and management	5 of six present	4 of six present	Fewer than 4 present
Situation Example	Detailed description of a situation highlighting problem-solving skills	Description of a situation vague yet highlights problem-solving skills	Description of a situation vague, problem-solving skills unclear	No situation
Experience	Experience relevant and detailed	Little detail of experience	No detail of experience but something is there	Nothing present
References	Present and contact info is accurate	One or more present, no contact info	One present, no contact info.	None

APPENDIX H: INTERIOR DESIGN FINAL PROJECT RUBRIC

Interior Design Project

1. Paragraph

Current color scheme.....	_____	/4
Flooring.....	_____	/4
Wall color/covering (texture?).....	_____	/4
Window treatment.....	_____	/4
Furniture—style, color.....	_____	/4
Accessories—colors/shapes.....	_____	/4
Things that will stay.....	_____	/4
Things that will go.....	_____	/4

2. Room-Graph Paper

Scale used for all-1/2"=1'.....	_____	/4
Walls are ¼' thick.....	_____	/4
Windows/doors drawn in.....	_____	/4
Door doesn't hit furniture.....	_____	/4
Dimensions labeled.....	_____	/4
Furniture labeled.....	_____	/4
Furniture placed logically and attractively.....	_____	/4

3. Folder design board

Pictures of all furniture placed neatly.....	_____	/4
Color of room and wall treatment labeled.....	_____	/4
Color scheme identified.....	_____	/4
Accessories placed on folder.....	_____	/4
Window coverings labeled.....	_____	/4
Inspiration piece and/or theme identified.....	_____	/4

4. Closing Paragraph

Identify and explain each design choice and why you chose them:		
Line.....	_____	/4
Color.....	_____	/4
Shapes/texture/space.....	_____	/4
What feeling do you want people to feel when they enter your room?	_____	/4

APPENDIX I: INTERIOR DESIGN GALLERY WALK

Gallery Walk

Your Name _____

Project Title: _____

Name of designer: _____

Name of project relates to overall impact? 5 4 3 2 1

Focal point or inspiration piece present? 5 4 3 2 1

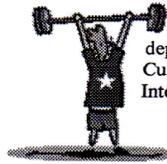
Do the pieces seem to be in balance? 5 4 3 2 1

How did they show rhythm _____

Which color scheme was used? _____

Overall presentation of elements 5 4 3 2 1

APPENDIX J: FINAL STUDENT SURVEY, PAGE 1



WOW! It is that time to say so long! I have enjoyed the time we spent together and hope you make opportunities to take more classes in this department. We offer Science in The Kitchen, Discovering Foods, Culinary Arts, Adult Living, Sports Nutrition, Child Development, and Interior Design. Thank you for your contribution to class!

Please answer the following with honesty and sincerity.

1. Write your name here _____

2. What were your grades for each class at midterm time?

Grade/class

3. Were you happy with your grades? YES NO

What did you do about it? _____

4. Rate the activities we accomplished this semester

5 =high 1=low

Personal Development.....

Claymation video showing personality	5	4	3	2	1
Body tracing showing your characteristics	5	4	3	2	1

Consumerism.....

Computer generated advertisements	5	4	3	2	1
Learning Style inventory	5	4	3	2	1
Oprah Winfrey on success video	5	4	3	2	1

APPENDIX J: FINAL STUDENT SURVEY, PAGE 2

Child Development.....

Juno and Jacqui comparison videos	5	4	3	2	1	
Babysitter flyer	5	4	3	2	1	
Exploration of your own parenting question	5	4	3	2	1	
Cat's in the Cradle song interpretation	5	4	3	2	1	
Wiki site work on stages of development	5	4	3	2	1	
Safety Flip book	5	4	3	2	1	
Toy or Activity presentations in class	5	4	3	2	1	

Sewing.....

Having a choice of projects	5	4	3	2	1	
Drawstring pants	5	4	3	2	1	N/A
Apron	5	4	3	2	1	N/A
Color scheme painting	5	4	3	2	1	
Color scheme use in planning an outfit or designing fabric	5	4	3	2	1	

5. In any class, does the degree to which you like the teacher affect how well you do in the class?

YES NO

Will you explain your answer?

6. Could you talk about anything you would change in this class?
