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How to teach the eight multiple intelligences developed by Howard Gardner in an elementary classroom

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How to teach the eight multiple intelligences developed by Howard Gardner in an elementary classroom

Abstract

This project consists of research that supports Howard Gardner's multiple intelligence theory. Definitions for each type of intelligence and specific examples of people who might exhibit each type of intelligence are included in the introduction. Several strategies for teachers to use on a daily basis as well as a curriculum development for early elementary aged students are included in this project.

Running Head: HOW TO TEACH THE EIGHT MULTIPLE INTELLIGENCES

How to Teach The Eight Multiple Intelligences Developed

by Howard Gardner in an Elementary Classroom

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This Project by: Sarah Lyle

Titled: How to Teach the Eight Multiple Intelligences Developed by Howard Gardner in
an Elementary Classroom

has been approved as meeting the research requirement for the Degree of Master of Arts
in Education.

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INTRODUCTION

Imagine a classroom full of students who are continuously in their seat using a pencil and paper to learn all day long. Would ALL students be learning from this type of an environment? Not according to Howard Gardner (1983). He is responsible for introducing the eight multiple intelligences. They include visual/spatial, logical/mathematical, verbal/linguistic, intrapersonal, interpersonal, musical, bodily/kinesthetic, and naturalist. Having background knowledge of these intelligences is very important when planning, organizing, teaching, implementing, and assessing all students. With this information, educators can vary their teaching strategies to accommodate the different personalities.

Description of Topic

This project consists of a thematic unit introducing Howard Gardner's eight Multiple Intelligences. It includes specific lessons that describe the individual intelligences that can be utilized in a kindergarten, a first grade, or a second grade classroom at the beginning of the year.

Purpose and Importance of Product

The purpose of this project is to provide an organized unit for educators. Getting to know the students and their interests is important when developing curriculum. This curriculum development will be used to acquire information about their students' most successful learning techniques. Once the educators understand this information, they can then use it when creating cross-curricular activities. Having the background knowledge of each student will help the educator grasp a better understanding of each student's

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learning style. With this information, the educator can then plan activities for other subject areas that he/she knows will be successful, due to the fact that the teacher already has that prior knowledge of the different learning styles. These types of activities also allow students the opportunities to get to know each other. Students' likes and dislikes can be determined just by the types of activities that the children are successful at completing.

Rationale

The rationale for completing this project is simple. All teachers experience a range of abilities in their classrooms. Truly getting to know their students can help them become more adaptable to each child's learning needs. As an educator, it is difficult to accommodate for all of the different types of children. This basic curriculum development provides activities that are to be utilized in the classroom. If the students have a better understanding that their peers learn in a different way than they do, the easier it will be when accommodations have to be made for the educator and the students. Everyone will already have the understanding that each person acquires information in various forms and few if any questions will have to be answered when one child is being treated differently than the others.

Terminology

Howard Gardner (1983) develops and defines the eight Multiple Intelligences. Here the definitions of the Intelligences are described in detail. Each intelligence has its own meaning. Then, Gardner (1983) goes on to state examples of each Multiple Intelligence. Different examples of jobs are apparent here, too. This helps clarify that

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people are different and that their differences do not hinder any work experiences that people take part in.

Visual/spatial intelligence is the first type of intelligence. It consists of the capacity to visualize. It also involves sensitivity to color, line, shape, form, and space. People who have this intelligence tend to have jobs like an interior decorator, hunter, scout, architect, inventor, etc. They can easily respond to, represent, or graph visual representations that are either imagined from the children's own mind or from the outside world like photographs, slides, movies, drawings, graphic symbols, etc.

The next type of intelligence that Gardner (1983) discusses is logical/mathematical. This type is sensitive to logical patterns and relationships. The capacity to use numbers effectively and to reason well is another characteristic of this intelligence. People who have this intelligence have jobs as mathematicians, tax accountants, statistician, scientist, computer programmer, etc.). Students who excel with the intelligence have strong problem-solving and reasoning skills and ask questions in a logical manner (Nelson, 1998).

Students who use words effectively whether in reading or in writing are using the verbal/linguistic intelligence. They manipulate syntax (structure of language), semantics (meaning of language), phonology (sounds of language), and the practical uses of language. Good memories for names, places, dates, and trivia are evident in students and people who are of the verbal/linguistic intelligence. Professionals who are of the verbal/linguistic intelligence most likely have jobs as a storyteller, politician, orator, journalist, poet, editor, etc.

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Intrapersonal intelligence deals with knowledge of oneself. Students have an accurate picture of themselves. They are aware of inner moods, intentions, motivations, temperaments, and self-discipline. These people have no problem working alone. Nicholson-Nelson (1998), states that this intelligence is difficult to observe. The only way to identify it is through observation and analyzing students work habits and products. Professionals who tend to portray such intelligence consist of psychiatrists, religious leaders, philosophers, and brain researchers.

The fifth type of intelligence is that of interpersonal intelligence. Here people focus on others. Students who are aware of the moods, intentions, motivations, and feelings of others are interpersonal. This includes sensitivity to facial expressions, voice, gestures, etc. Students who exhibit this intelligence thrive on cooperative learning activities, have strong leadership skills, and are skilled at organizing, communicating, mediating, and negotiating. People who exhibit such qualities tend to be teachers, therapists, salespeople, counselors, politicians, religious leaders, and business executives.

Musical intelligences include students to perceive, discriminate, transform, and express musical forms. It includes sensitivity towards rhythm, pitch, melody, or tone of a musical piece. Gardner (1983) believes that students who enjoy listening to music and are aware of surrounding sounds and the emotional feelings those sounds portray usually have a strong sense of musical intelligence. Professional opportunities for students who have an interest in music tend to be singers, songwriters, rock musicians, dancers, composers, and music teachers.

According to Gardner (1983), the bodily/kinesthetic intelligence deals with using one's whole body to express ideas and feelings. It includes specific skills like coordination, balance, dexterity, strength, flexibility, and speed. Students who are good at using this intelligence use their body to solve problems, to make things, and to convey ideas and emotions. Actors, athletes, surgeons, mimes, musicians, dancers, and inventors are a few possibilities for professional opportunities using the bodily/kinesthetic intelligence.

The final type of intelligence is called naturalist. This intelligence was added later in Howard Gardner's career. A person with the naturalist intelligence has developed sensitivity to natural phenomena like cloud formations and mountains. That person has an expertise in the recognition and classification of the numerous species of an individual's environment. Thomas Armstrong (2000) explains this intelligence as an understanding of how nature interacts with civilization, how relationships are inherent in nature, and how the life cycles of nature work. Basically, the people who have this intelligence are able to see the world in a larger perspective. Professional opportunities for people of this naturalistic approach include botanists, landscapers, naturalists, park rangers, scientists, etc.

Howard Gardner identified a ninth intelligence, which he called existential intelligence. This intelligence is still being defined, and little information exists to define it. People who portray this intelligence may exist in clergy, as philosophers, and as spiritual people. So far Gardner's ideas have reflected the ability to ponder the nature of existence like who we are, why we die, how we got here, etc. This type of intelligence

allows people to ponder or think critically about things that are in question especially since there are no clear definitive answers.

METHODOLOGY

Literature Review

Howard Gardner (1983) is the founder of the multiple intelligence theory. As a child, he became a very serious pianist. The arts became of great importance to him, especially as he grew older. Gardner began to realize that all people develop different interests and their interests can help determine how they are intelligent. Some exhibit knowledge in reading and retaining factual information, while others have natural talent in playing sports or musical instruments. All people have such intelligences.

Some outside forces may cause people to lose such intelligences. Examples would include a head injury, old age, having a medical condition, etc. Howard Gardner (1983) discusses how cognitive functions are affected by people who have had such accidents or medical conditions like strokes. Some may lose their physical abilities while others tend to lose their speech. However, Gardner believes that even though these people have lost such intelligences, they still exhibit other types of intelligences. Other areas of interest may not have been as developed as the bodily/kinesthetic or verbal/linguistic intelligences. So people who have experienced a loss have to develop the other types of intelligences.

Having an understanding of all the intelligences is beneficial especially if something like the above were to happen. So why not educate at an early age? Everyone should have an understanding of what each intelligence means and should be able to

identify which intelligence(s) best represents him/herself. This is where educators begin to play an important role. They need to get to know each and every child and how they learn effectively. Not only are educators responsible for this, they have to use a variety of teaching strategies to determine and support the multiple intelligences.

According to Armstrong (2000), when beginning to utilize the eight multiple intelligences in the classroom, it is important for educators to become in tune with their students. They must get to know their likes, dislikes, how they enjoy learning, etc. Teachers need to be aware of how their students are successful in learning and whether or not they enjoy it. They can become in tune with the various intelligences by keeping a journal to record observations. Here the person completing the observations would write important key points that may help define the child's most prominent learning style. Also, students can have a say in how they learn. They can draw, write, pantomime, participate in group discussions, or complete personal interviews to show the educator how he/she stays motivated when learning.

Parent-teacher conferences are another great way to identify the intelligence(s) of a child. During this time, teachers and parents can discuss what they see the child doing in the school setting and also at home. Maybe the parents see the child listening to music at home. The educator might support that by saying that he/she enjoys it when the class sings or when music is played. This shows that the child is interested in music and most likely displays the musical intelligence. Cooperation like this among families and teachers would aid them in deciding what ways their specific child learns best. In

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addition to, conferencing with other teachers can create another strong support system that can reaffirm the way(s) in which students enjoy learning and are successful.

Educators have great control in how they introduce and how they teach the multiple intelligence theory. There are several different teaching strategies that can be utilized when trying to apply the eight intelligences. First, instead of standing in front of the room and lecturing the students allow different learning opportunities throughout the day. Another idea is for educators to use visual representations like drawing pictures on the board or actual objects in the classroom. Show videos to the students. Playing music either to set the stage for some specific purpose, to make a point, or to play it during a work time to promote on-task behavior shows the teacher is trying to accommodate different learning styles. Hands-on activities are another great way to successfully involve all children. Give the students something to manipulate with their hands or parts of their bodies. This will intrigue the bodily/kinesthetic learners. Therefore, their motivation for learning the content will be heightened.

Allow students time to reflect in private journals that only the individual child and the educator see. Students need time to think and reflect. Some prefer to do this privately while others like to share with other people. Other ideas that Hauslein (2001) has discussed deal with getting the children involved in class discussions. The discussions may consist of working in partners, small groups, or even the large group. Offer different ways to discuss like the jigsaw method where each child has a part and then they have to get back into their groups and put it all together. Don't forget, that children need to work

independently too. When applicable, incorporate the natural world. Whether the educator is trying to divide kids into groups or he/she is discussing specific content about nature.

Lesson Development

The lessons that were developed in this project focus primarily on lower elementary aged children. The goal was to create activities that teachers could use in their classroom at the beginning of the year. A search was done on EBSCO to find Eric Journals that support the ideas of Howard Gardner. Several books were consulted to find teacher activities and other support information. Some lessons had already been developed before this project came to mind. It is interesting to see how activities that had already been in place in a classroom could fit so perfectly into Gardner's theory.

PROJECT

The project is a compilation of lessons that can be used to introduce the eight multiple intelligences. These lessons consist of activities that can be utilized in a lower elementary classroom, specifically, kindergarten through second grades. Activities that can be utilized in the introduction of the multiple intelligences can also be used in cross-curricular opportunities like science, math, or social studies.

Day One

Materials: outline of the M.I. pizza placed on tag board, each individual piece of the M.I. pizza, Velcro

Objectives: The learner will be introduced to the terminology used when discussing the Multiple Intelligences. The learner will gain an understanding that all children have different learning styles and different learning needs.

Procedure: The teacher will ask the students, “What is your favorite type of pizza?” Hopefully, the children will come up with a variety of answers. Make a tally of each of the kinds of pizza they come up with. Count up all of the pepperoni lovers, sausage lovers, etc. Create a graph with the information the educator has received. Do this to illustrate how everyone can be unique by enjoying different types of pizza.

Once the pizza activity is finished, this acts as a great transition to lead into the M.I. pizza (Armstrong, 2000). Please make an outline of the pizza on a piece of tag board or bulletin board paper, do not show each of the parts to the learners. The educator should want to leave something to be desired. The element of surprise is great to keep their motivation up. Next, create each piece of the pizza out of another sheet of paper so it fits inside the outline. Add a piece to the pizza each day when the teacher begins discussing the Multiple Intelligence's by attaching Velcro. Be sure to hang the outline on the board so students can see it.

Explain to the students that over the next few weeks they will be the discussing the M.I. pizza. Also, they will be doing many activities that will help them get to know other students better. Students will have to complete an illustration of them and include what intelligence they use when they are learning. They must also write a sentence or two about what type of learner they think they are.

Assessment/Evaluation: This lesson will be evaluated on class participation and observation of the student's interest. Also, students will be evaluated on the drawing they complete. This illustration along with the dictation should describe what type of intelligence the students believe they use most. They will be making a prediction about

what type of learner they are. This will help the educator determine if the students have an understanding of the lesson.

Interpretations of the lesson: This activity turned out to be a great introduction to the M.I. pizza. Students enjoyed thinking about what kinds of pizza they liked best. They came up with many different answers. The discussion then transitioned into the introduction of the eight Multiple Intelligences. The students were very alert and eager to find out what their pizza was going to look like.

Day Two

Naturalist (Nature Smart)

Materials: naturalist piece of pizza, pencil, crayons, paper, reflection page

Objectives: The learner will be introduced to the Naturalist piece of the pizza. Students will then apply what they have learned by finding objects outside and classifying them.

Procedure: Introduce the first piece of the M.I. pizza. Discuss with the students what the definition of a person who shows natural intelligence means.

Each child needs to go outside to find three things that relate to nature. An example would be a rock. Since there might be limited objects, a note card and a pencil may be given to each student. If students do not find three things in nature, they can draw a picture of the object that they see. Try to get the students to find objects that can be picked up and carried. When they have found their three natural objects, they need to have a seat on the cement outside. They can look through what they have found and be thinking about how they might classify the objects.

When all students are seated, tell them that they need to get into a group of three or four students per group. They can do this by standing up. First, they are going to look for people with the same color eyes. Then they will need to find people who have the same color eyes and the same color hair. This will be their group for this activity.

After they have formed their groups and are situated, they will need to begin discussing how they will sort or classify their objects. If students choose to draw pictures on a card, have them cut apart their pictures in order for them to be part of the classification.

Once they are finished with this, have students work as a whole group. The students will share what objects they had found and how they had classified them. Each person must share how and why they classified the specific objects the way they did.

At the end of the lesson, the students will fill out a reflection page to share their feelings, thoughts, and emotions on how they thought the day went with these activities. They will hand them in so the teacher can give feedback to the children's comments.

Assessment/Evaluation: The reflection page is the assessment tool of this lesson. It will show how the students felt about the lesson. Another assessment tool is observing class participation as the activities are taking place. At recess, students must see what types of things they can find outside that deal with nature. They can both collect these items and bring them in to share or they can draw pictures of what they have found. Then they will come in and share with the other students what they have found.

Interpretations of the lesson: The children struggled with forming their own groups. It was very confusing for the six year olds to determine what color eyes and hair they had

and then try and form a group with those kids. That activity needs to be more direct. For example, most educators already have their children split into groups. So take those groups and see if the students can find someone within their predetermined group who has the same color of eyes and hair. That may alleviate the problem.

Day Three

Bodily-kinesthetic (Body smart)

Materials: B-K piece of the pizza, ball

Objectives: The learner will be introduced to the bodily-kinesthetic intelligence by participating in the discussion. Students will utilize this intelligence when answering the questions the educator asks and by throwing and catching the ball.

Procedure: Introduce the second piece of the M.I. pizza. Discuss with the students what it means to be of a bodily-kinesthetic intelligence.

The teacher initiates this lesson by asking students a few “getting to know you” types of questions. What’s your favorite color? Etc. The educator will receive feedback from the students.

The class will get into two different circles. There needs to be an even number in each circle. An inner circle with students facing outwards is a necessity. The outer circle should be facing inward toward the center of the circle. They should all be seated on the floor. All should have someone to look at. If not, the educator will need to participate. The inner circle will all have balls to hold onto. The next step involves the teacher. He/She will ask one question at a time. The students with the balls have to answer first. Next, the teacher yells, “Switch!” This means that the students on the inside must throw

the ball to the person across from them. Then the teacher repeats the question. The students answer. The outside circle then slides right one person. This is beneficial so all students have the opportunity to interact. Ask enough questions to go around at least once. However, circling twice would be best.

Here are sample questions:

How many brothers or sisters do you have?

What pets do you have?

What's your favorite thing to do on a hot summer day?

What's your favorite thing to do on a cold winter day?

What's your favorite color?

What's your favorite food?

What's your favorite part of school?

Be sure that the child who is speaking has the ball. The others are not to be speaking if they do not have a hold of the ball.

When the activity is finished, the children will discuss the activity and how it made them feel. They should discuss openly, doing this shows they are aware of their peer's emotions and being very interpersonal.

The above questions are great for the beginning of the year. However, this same type of activity could be used at anytime. Other content areas like science, social studies, or math could be supported using this activity. The only thing to do would be create questions that coincide with what the students are learning.

Assessment/Evaluation: Once the activity is over, the students will have to write at least two things they learned about two other students on a piece of paper and then draw a picture of those people. Participation and observation will continue to be used to determine the effectiveness in the lesson. Another assessment opportunity includes having the students sit at the end of the activity on the floor in a circle. The educator explains that each child will be sharing something they learned about another student. When doing this, the teacher should not use verbal cues, he/she takes a ball and tosses it to the child he/she wants to call on. This will keep the students on task and into the conversation because the activity will be more unpredictable.

Interpretations of the lesson: This lesson went very well. The children did an excellent job of listening to the directions. It was a great learning opportunity for all of the students.

Day Four

Logical-Mathematical (logic smart)

Materials: L-M piece of the puzzle, a reproducible mind map, a piece of blank tag board, reflection page

Objectives: Students will be introduced to the logical-mathematical intelligence by participating in the discussion the teacher leads. The learners will show their understanding by creating a mind map describing themselves.

Procedure: Introduce the L-M piece of pizza. Discuss with the children what it means to be logic smart.

The students will be given a mind map to complete. They will have to think about unique things about themselves. They can use markers to draw or write in order to create

something that they can describe about themselves. Creating this mind map, will help them realize what they believe is important about themselves.

Get together in groups to discuss their mind maps. Do this by seeing who has the same color shirt on. Then form the groups. As a whole class, the students will create a chart that deals with what their likes and what their dislikes are. The chart will display the information that was discussed from the children. As a group they will be able compare and contrast the facts about their peers.

Students will then reflect on what they enjoyed about the day and/or what they did not enjoy about the day.

All of these lessons are excellent ways to meet the individual needs of the learners. They also attest to the different learning styles and help the students in the classroom become more independent learners.

Assessment/Evaluation: The assessment consists of the mind maps. The completion of the maps and the participation in the discussion are other ways to evaluate. The making of the chart will help students see the logical-mathematical intelligence by visualizing the chart which will illustrate the differences among the children.

Interpretations of this listen: The students were most successful when they created their individual mind map. It was difficult to pull together and make a chart because of the variety in answers. Students could compare their mind maps with the other students to see if they could find similarities. They could then take the similarities they found and chart the similarities. Then do the same with the differences.

Musical (music smart)

Materials: musical piece of pizza, reflection page, paper, markers, pencils, music, CD player, CD's

Objective: The learner will develop an understanding of what it means to be music smart by being active in the class discussion. The children will create a song, chant, or poem that shows they have an understanding of what it means to be music smart.

Procedure: The teacher will introduce the music smart piece of the pizza. He/She and the students will discuss what it means to be music smart.

The teacher will give an example of a song/poem/chant of something about me. This person will model the appropriate project to the children. This will give them the opportunity to see and hear what the educator is expecting of them.

In order to put the children in groups, the teacher will need to find out more information. The teacher will hang a paper on each corner of the classroom. On this paper, there will be a picture and a word that corresponds with it. The four pictures will include playing sports, reading, socializing with friends, and being with their families. The students will have to choose what represents them best. Once this is done, the children can get into their groups.

The students can write out, act out, sing, dance, etc. in order to describe something that is unique to them. This is something that is very special to each individual child. When they are in groups they can choose to continue to work in groups or break off into partners or even individual work.

The students could even choose one word that describes them and then rap it or sing it to the class.

When they have finished creating their musical work, they will share their production with the class.

At the end of the lesson, the students will reflect on the activities they participated in today. They may choose to write or draw on the reflection page.

Assessment/Evaluation: The students will be assessed on the effort and the creativity used to make their poem, chant, song, dance, etc. Participation and observation is also used to evaluate this lesson. The reflection page will be a great way for students to show their thoughts about the activity.

Interpretations of this lesson: This lesson worked well because students were able to be creative about them selves. They had fun thinking of a way to describe their likes and dislikes in either singing a song, rapping, dancing, or acting out.

Day Six

Visual-Spatial (picture smart)

Materials: One large reproducible “pizza” with the seven blank pieces, and one separate piece labeled “picture smart”, reflection page, see center descriptions

Objectives: The learner will acquire an understanding of the term visual-spatial intelligence by participating in the centers.

Procedure:

Center 1: Drawing paper, crayons

Center 2: Blind folds, wooden blocks

Center 3: Paper sack filled with at least two shapes per student, construction paper, glue,
Crayons

Center 4: Paper of variety colors and textures, glue, crayons

Students will get to know each other, through working in cooperative learning groups. Students will explore their sense of being picture smart.

The teacher will introduce the term “picture smart” by adding the piece to the smart pizza. She will then talk about how being picture smart means enjoying activities like drawing, coloring, creating, and arranging things. Each center will be introduced and modeled by the teacher.

Students will transition into cooperative learning groups by the following activity. Have students close their eyes. The teacher says a color, such as red. The teacher will ask the students to think about the first thing that pops into their mind.

Students will split up into four groups according to what they saw; food, animal, car, other. The groups will be together for the four picture smart centers.

Center 1: Copycat Drawings

Students will take turns in their groups being the copycat and the illustrator. The illustrator will draw a picture, step by step. The other students in the groups will copy their drawing as closely as possible. It must be as close to the original as possible in relation to size, shape, and color. Students will rotate until everyone has had a chance to play both roles.

Center 2: Blind Building

Students will work in their groups, building structures out of blocks, while blindfolded. Students will become familiar with their spatial perspective, and construction ability. This activity could also be completed without a blindfold.

Center 3: Great Shapes

Students will each draw three paper shapes out of a sack. Using each shape, students will construct a picture by gluing them onto paper, and adding details with drawing utensils. Students must attempt to use each of their pieces.

Center 4: Tear Your Hair

Students will create a self-portrait, by tearing an oval for their head and strips of paper for their hair. Details such as eyes, nose, mouth, freckles, and ears can be drawn on.

Students will use their intrapersonal intelligence to reflect in their journals. They will record the emotion they felt while engaged in their centers and have the option to draw or write about it.

Assessment/Evaluation: Students will be assessed on how they participate at the centers, whether or not they listen and follow directions. At the completion of each center, the students turn in their work and are evaluated on the quality of it. The reflection pages are another great way to find out what the students felt about the activities.

Interpretations of this lesson: The center activities worked well for representing the visual-spatial intelligence. The activities had been carefully thought out and organized. The students enjoyed the copycat drawings. It was interesting to see the differing abilities among the students. The students who were relatively successful in their drawings seem to be the most organized in the classroom.

Day Seven

Verbal-Linguistic (word smart)

Materials: piece of the pizza labeled “word smart”, one copy of the word smart survey for each student, picture cards, reflection journals

Objectives: Students will develop an understanding of the term verbal-linguistic

intelligence by participating in the discussion and the activities.

Procedure: Students will get to know each other by exploring one another's word smarts.

Students will become aware of their ability to use words and language.

The teacher will introduce word smart by adding the piece to the pizza. He/She will then explain that being word smart means that you enjoy reading, speaking, writing, and working with language. Students will use a written interview to learn more about their classmates.

Students will clap their name. They will count the number of syllables in their name and find another student who has the same number. Students will start their interview with this student, and then move freely around the room to complete their survey.

Word Smart Interview

Students will be asked to interview their classmates. They will have to fill each blank with a name from someone in the classroom.

1. Find someone who went swimming over the summer. _____
2. Find someone who can touch their nose with their tongue. _____
3. Find someone who can do five push-ups. _____
4. Find someone who can sing Three Blind Mice. _____
5. Find someone who can spell the word SMART. _____
6. Find someone who can act like a monkey. _____
7. Find someone who can tell a joke. _____

This interview can be adapted to use pictures allowing students who cannot read the opportunity to participate.

Word Whiz

Students will get back with the person they started their word smart interview with. In

pairs, students will use descriptive words to describe what picture is on the card. The other students will guess what the picture is. This is very similar to the game of Password. Students will change roles after each turn.

Assessment/Evaluation: Students will be observed during the activity by the teacher. The teacher will be looking for cooperation among peers, the conversation among peers, and the vocabulary use. Reflecting in their journal will help teacher when evaluating the lesson.

Interpretations of this lesson: All of the activities planned to support the verbal-linguistic intelligence went well. The picture card activity worked very well. The children were able to use many different words to describe the card. This was a fun task for them.

The other multiple intelligences that do not have a specific day designated to them are interpersonal and intrapersonal. Throughout these lessons, children are utilizing both. They are constantly aware of what their peers are feeling and thinking. That is using interpersonal intelligence. Students are asked throughout several places to reflect in their journals. Here they write about how the activity made them feel. This is very intrapersonal. Since the children are naturally doing these, there does not need to be a specific activity designated to the intrapersonal and interpersonal intelligence.

Day Eight

Final Activity

Materials: Multiple Intelligence Checklist

Objective: The purpose of this is for the teacher to clarify what type or types of intelligences the children represent. Doing this helps the teacher plan future lessons.

Procedure: A review of the M.I. pizza put totally together is an order. The students need to be reminded of all the different types of learning styles. Providing a discussion as a review can help reinforce this theory.

The students need to evaluate themselves by drawing a picture, writing, singing, acting out, etc. to justify what type of intelligence best suits their learning styles. This is up to the students to determine. They need to think about what activity helps them learn the most about some of the students in the class. For example, was it through the bodily-kinesthetic activity or the musical activity that the child developed a deeper understanding of a peer?

A checklist for assessing each student's multiple intelligence should be administered to the students. This will help the educator determine what type or types of intelligences his/her students utilize most frequently in their educational experience. Knowing this, the educator can then be better prepared since he/she would know each individual child's most prominent learning style. The checklist should be filled out by the teacher. Each child will be observed and a checklist will be filled out. It is the responsibility of the educator to observe each child and make checkmarks next to the appropriate characteristic. The checklist is included in the Appendix.

Assessment/Evaluation: The personal reflection page must be completed by the students. That will act as a great tool to help inform the teacher. Also, the checklist will be used as an assessment to determine what intelligence each student uses most often, most successfully. Then, a comparison can be made between the reflection page as to

what the child thought and then what the teacher saw as being the intelligence that was most often used.

Interpretations of this lesson: The final lesson is great because it allows the students to reflect upon the Multiple Intelligence that best fit their learning styles. They can do this by using the M.I. that suits them. Having the educator complete a checklist will help him/her get to know the students learning needs.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Outsiders looking into a classroom that utilize this project will no longer find students sitting in their seats listening to the teacher. Children will be actively involved with hands-on activities moving about the room. The majority of these lessons are student-centered with little directedness from the teacher. All students will be engaged in learning in one way or another. Gardner's theory is utilized and adapted to fit the needs of the students in each classroom.

Gardner's Theory of Multiple Intelligences provides insight into the different learning styles and needs of each individual child. The Multiple Intelligences focus on the eight different types of learning styles among students. To recap, they include visual/spatial, logical/mathematical, verbal/linguistic, intrapersonal, interpersonal, musical, bodily/kinesthetic, and naturalist. Having background information about each and every child helps educators determine what each student needs to become a successful learner.

Recommendations

Future projects can be created with this lesson development. Additional activities added to each lesson would further support the eight Multiple Intelligences. Providing more opportunities for all types of learners will help the students become in tune with their learning needs. Students will gain more respect and understanding for their peers. The more activities that they are involved in the more experience they gain with different people and their personalities.

Other possibilities include the different subject areas. Educators can utilize these activities when teaching specific subjects like social studies, science, language, and much more. Incorporating these lessons across the curriculum will continue to help children develop a deep understanding of the Multiple Intelligence Theory. Also, children will be learning specific facts about such topics as magnets, plants, Japan, Mexico, etc. Doing this will continue to reinforce children's different learning styles and encourage all to be successful students.

Appendix-Thomas Armstrong (2000) Intelligence Survey

Name of Student: _____

Check items that apply:

Linguistic Intelligence

- writes better than average age for kids
- spins tall tales or tells jokes and stories
- has a good memory for names, places, dates, or trivia
- enjoys word games
- enjoys reading books
- spells words accurately
- appreciates nonsense rhymes, puns, tongue twisters
- enjoys listening to the spoken word (stories, commentaries, talking books)
- has a good vocabulary
- communicates to others in a highly verbal way

Other Linguistic Abilities:

Logical-Mathematical Intelligence

- asks a lot of questions about how things work
- enjoys working or playing with numbers
- enjoys math class
- finds math and computer games interesting
- enjoys playing chess, checkers, or other strategy games
- enjoys logic puzzles or brainteasers
- likes to do experiments in science class or in free play
- enjoys putting things into categories, hierarchies, or other logical patterns
- shows interest in science-related subjects

Other Logical-Mathematical Abilities:

Visual-Spatial Intelligence

- reports clear visual images
- reads maps, charts, and diagrams more easily than text
- daydreams a lot
- enjoys art activities
- good at drawings
- likes to view movies, slides, or other visual presentations

- _____ builds interesting three-dimensional constructions
- _____ gets more out of pictures than words while reading
- _____ doodles on workbooks, worksheets, or other materials

Other Visual-Spatial Abilities:

Bodily-Kinesthetic Intelligence

- _____ excels in one or more sports
- _____ moves, twitches, taps, or fidgets while seated for a long time in one spot
- _____ cleverly mimics other people's gestures or mannerisms
- _____ loves to take things apart and put them back together again
- _____ puts his/her hands all over something he/she's just seen
- _____ enjoys running, jumping, wrestling, or similar activities
- _____ shows skill in a craft
- _____ has a dramatic way of expressing himself/herself
- _____ reports different physical sensations while thinking or working
- _____ enjoys working with clay or other tactile experiences

Other Bodily-Kinesthetic Abilities:

Musical Intelligence

- _____ tells you when music sounds off-key or disturbing in some other way
- _____ remembers melodies of songs
- _____ has a good singing voice
- _____ plays a musical instrument or sings in a choir or other group
- _____ has a rhythmic way of speaking and/or moving
- _____ unconsciously hums to himself/herself
- _____ taps rhythmically on the table or desk as he/she works
- _____ sensitive to environmental noises (rain on the roof)
- _____ responds favorably when a piece of music is put
- _____ sings songs that he/she has learned outside of the classroom

Other Musical Abilities:

Interpersonal Intelligence

- _____ enjoys socializing with peers
- _____ seems to be a natural leader
- _____ gives advice to friends who have problems

- _____ seems to be street smart
- _____ belongs to clubs, committees, organizations, or informal peer groups
- _____ enjoys informally teaching other kids
- _____ likes to play games with other kids
- _____ has two or more close friends
- _____ has a good sense of empathy or concern for others
- _____ others seek out his/her company

Other Interpersonal Abilities:

Intrapersonal Intelligence

- _____ displays a sense of independence or a strong will
- _____ has a realistic sense of his/her abilities and weaknesses
- _____ does well when left alone to play or study
- _____ marches to the beat of a different drummer in his/her style of living and learning
- _____ has an interest or hobby that he/she doesn't talk much about
- _____ has a good sense of self-direction
- _____ prefers working alone to working with others
- _____ accurately expresses how he/she is feeling
- _____ is able to learn from his/her failures and successes in life
- _____ has good self-esteem

Other Intrapersonal Abilities:

Naturalist Intelligence

- _____ talks a lot about favorite pets, or preferred spots in nature, during class sharing
- _____ likes field trips in nature, to the zoo, or to a natural history museum
- _____ shows sensitivity to natural formations (while walking outside, will notice clouds)
- _____ likes to water and tend to the plants in the classroom
- _____ likes to hang around the gerbil cage, the aquarium, or the terrarium in class
- _____ gets excited when studying about ecology, nature, plants, or animals
- _____ speaks out in class for the rights of animals, or the preservation of planet earth
- _____ enjoys doing nature projects, such as bird watching, butterfly or insect collections
- _____ brings to school bugs, flowers, leaves, or other living things to share
- _____ does well in topics at school that involve living systems (biology or environmental)

Other Naturalist Abilities:

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