Description of the Subject and Major Goals

The assessment I have created is designed to test kindergarten students on the subject of mathematics. Developing an understanding of the concept of number is a critical aspect of a mathematics curriculum in kindergarten. These students also are expected to recognize, describe, and create simple patterns as well as to recognize a variety of shapes. In addition, students will explore nonstandard measurement, collect data, and create graphs. Kindergarten mathematics also encourages students to use the appropriate terminology and vocabulary. As a result of exposure to this curriculum, these students should be able to function more independently and smoothly in the world around them. For example, students in kindergarten learn to count, tell time to the hour, recognize a penny, nickel, dime, and quarter, as well as measure length and weight.

Description of the Particular Unit

In particular, this assessment I created covers the topic of money. The students will be exposed to instruction on recognizing the four coins, describing the characteristics of these coins, and determining the value of pennies and nickels whose value is less than 10 cents. After instruction, this assessment which is a combination of select-response and supply-response will be administered to these kindergarten students. It is my hope that as a result of instruction these students will be able to use real coins in their everyday life.

Description of Intended Learning Outcomes

There are three intended learning outcomes that will be taught and assessed within this unit on money. All three intended learning outcomes for Virginia Standard of Learning K.7 will be assessed by this test. The first intended learning outcome wants the students to learn how to describe the properties/characteristics (e.g. color, relative size) of a penny, nickel, dime, and

quarter. The second intended learning outcome has the students identify a penny, nickel, dime, and quarter. The third intended learning outcome wants the kindergarteners to count a randomly placed collection of pennies and/or nickels (or models of pennies and/or nickels) whose value is 10 cents or less, and determine the value of the collection.

Description of the Classroom and the Students

This kindergarten classroom is composed of a wide variety of student ability levels. We have several very bright students who are well above grade level. These students can write legible and meaningful sentences, read a small book, and count high numbers. In addition, we also have a few students who struggle academically and are facing retention. These kindergarteners have not yet grasped the concept of word, number, or that writing is used as a form of communication. Then, as with most elementary school classrooms, the majority of our students are right on grade level and are progressing as expected. These students can sound out and write the letters of the alphabet and some sight words, read very simple sentences, and count to at least 20. We have several students in our classroom who have an Individualized Education Program. Two girls and two boys in our kindergarten classroom have IEP's. The behavior of these students is just as mixed as their academic ability. For the most part our classroom is full of respectful, caring, and attentive young students. However, we do have approximately three male students who are a constant challenge for the classroom teacher. We also have approximately two female students who tend to misbehave in the classroom. These students must be constantly reminded of appropriate kindergartener behavior. My cooperating teacher and I try to positively reinforce pleasant behavior while attempting to limit misbehavior in the classroom.

Regarding the actual classroom, it is an environment that promotes student growth and academics. The artwork of the students is proudly on display outside the classroom, on the walls

inside the classroom, and hanging from the ceiling. We have a word wall word that contains new and frequently used words. We have an ABC center where the students can practice learning their letters of the alphabet. Also, we have an art center where the children can create their own original artwork using different materials. Our classroom is full of books that are easily in the reach of the students. In addition, the classroom is well organized and relatively tidy. The environment is warm, caring, and seems to be a great place to learn.

Purpose of the Test

The purpose of this assessment is to measure student knowledge about money after receiving corresponding instruction on the topic. I intend for this assessment to be summative in nature. I would like to see the level of student learning as a result of my instruction on this particular topic. The results of this assessment may likely alter my instruction on money next year. For example, I may realize that I focused too much on one intended learning outcome at the expense of another different intended learning outcome.

Intended Learning Outcomes and Standards

This mathematics assessment covers Virginia Standard of Learning K.7 which states that the students will recognize a penny, nickel, dime, and quarter and will determine the value of a collection of pennies and/or nickels whose total value is 10 cents or less. More specifically, the intended learning outcomes state that the student will describe the properties/characteristics (e.g. color, relative size) of a penny, nickel, dime, and quarter. The student will identify a penny, nickel, dime, and quarter. In addition, the student will count a randomly placed collection of pennies and/or nickels (or models of pennies and/or nickels) whose value is 10 cents or less, and determine the value of the collection.

Meredith Robins

Table of Specifications

	Cognitive Levels					
Content	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Properties/Characteristics of a penny, nickel, dime, and quarter		**1,2,3** X				
Penny, nickel, dime, and quarter	**4,5,6,7** X					
Randomly placed collection of pennies and/or nickels whose value is 10 cents or less				**8,9,10** X		
Value of the collection				**8,9,10** X		

Discussion of Construct Validity

I believe the assessment I created has a high degree of construct validity. This assessment is in alignment with the intended learning outcomes I have selected to target. I strongly feel that the assessment measures what it intends to measure. In other words, this assessment does in fact assess student knowledge on describing the four coins, identifying the four coins, and counting the value of a randomly placed collection of pennies and nickels. By simply looking at this test and looking at the intended learning outcomes I believe my assessment has fact validity.

Discussion of Content Validity

I also believe that this mathematics assessment I have created has a high degree of content validity. Before I created this assessment, I examined the intended learning outcomes and their cognitive levels. Then, I created a table of specifications to make sure to target each intended learning outcome. The procedure I used to create this assessment helps me to believe in its content validity. In addition, after looking over this test I am positive that I have not assessed any learning outcomes that were not intended to be tested or that will not receive proper instructional time.

Rationale for Test Type Items

When creating this assessment, I had several factors to take into account to ensure that my assessment is age appropriate, targeted the necessary cognitive levels, and would be completed in a timely manner. My assessment is only ten questions long because I will be administering it to students in kindergarten. In addition, seven of the answers are select-response and three are supply-response. I felt that incorporating several supply-response items would make the assessment less overwhelming for these young students. They will verbally respond to the first three questions when taking the assessment. Then, the remainder of the assessment will

be completed by the students with the help of the teacher. To address the cognitive levels of these intended learning outcomes, I created questions that reached the knowledge, comprehension, and analysis levels of Bloom's Taxonomy. To ensure that my assessment could be completed in a timely manner by these kindergartners, I only included ten questions and three choices per multiple choice options per question.

Potential Threats to Reliability

Although I attempted to create a valid and reliable assessment, there are always threats to any assessment. Regarding reliability, I included at least three test questions for each intended learning outcome to reduce the likelihood of error. In addition, I have reviewed my assessment to make sure that my directions and formatting are free from systematic errors. I believe each of the questions are clear, lack cultural bias, and are free from grammatical and mechanical errors. Also, my grading criterion for this assessment is extremely objective. For the supply-response questions, the students either know the answer or they do not. For the select-response questions, again there is only one correct answer. I increase the reliability of my assessment by reducing the chance of teacher subjectivity. I also increase reliability by ensuring that none of my questions on the assessment give away the answer to another question. Random error is the most difficult type of error to control; however, I will attempt to reduce the likelihood of random error. For example, an unexpected fire drill could reduce the reliability of this mathematics assessment. When administering this assessment I will make sure to read the questions to the students in the same tone and not focus on any particular answer choice.

Potential for Predictive Validity

I believe if my assessment and another assessment on the same topic were to be compared; the results would show that my assessment has strong evidence of predictive validity.

These kindergarten students did take a mathematics benchmark assessment in early February that covered identification of the penny, nickel, dime, and quarter. However, the other intended learning outcomes that I cover in my assessment did not receive coverage on the mathematics benchmark assessment. I believe I could determine the predictive validity of my assessment by reviewing individual students' results on the benchmark tests and comparing them to my own assessment results.

Description of Scoring and Grading Procedures

Students who take this assessment will fall into three categories regarding their knowledge on money. Students who answer all ten questions correctly will be considered as having mastered the concept. Those kindergarteners who answer eight or more questions correctly will be considered as developing the knowledge of the concept. Students who answer less than eight questions correctly will be considered as still working on knowledge of this concept. To grade the supply-response items I will have a checklist which contains the three questions asked on the assessment and a list of all names of the students in the classroom. For the select-response items the multiple choice questions will either be answered correctly or incorrectly and then scored accordingly.

Overall, I believe this assessment on money for students in my kindergarten classroom is valid, reliable, and age-appropriate.

Meredith Robins

Checklist for Scoring Student Answers on Questions 1-3

Student Name	Identifies Quarter as Largest in Size	Identifies Dime as Smallest in Size	Identifies Penny as Copper/Brown
Jason			
Avril			
James			
Nicholas			
Sophie			
Mitchell			
Allianna			
Victoria			
Takara			
Anders			
Keonce			
Carter			
Mar'Nyjah			
Gracie			
Ruby			
Matthew			
Joseph			