GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
GRADUATE SCHOOL OF EDUCATION
Mathematics Education Leadership

EDCI 644 DL1 or DL2: Mathematics Learning and Assessment (K-8)
3 Credits, Spring 2015
DL2 – Tuesdays, 4:30-7:10, online (as noted in schedule)
DL1 – Wednesdays, 4:30-7:10, online (as noted in schedule)

PROFESSOR:

Name: Dr. Courtney Baker
Office hours: By Appointment
Office location: Thompson 1803
Office phone: 703-993-5081 Cell: 703-615-1314
Email address: cbaker@gmu.edu

COURSE DESCRIPTION:

A. Prerequisites/Corequisites
Admission to the Mathematics Education Leadership Master's Degree Program or instructor permission.

B. University Catalog Course Description
Introduces students to learning theories and associated assessment practices specific to mathematics education. Intended for mathematics specialists and teachers interested in problems of learning and assessment across K-8 settings in mathematics education.

C. Expanded Course Description
This course is designed for master's level students in the mathematics education leadership cohort program.

DELIVERY METHOD:

This course will be delivered online using a **synchronous** format via the Blackboard learning management system (LMS) housed in the MyMason portal. You will log in to the Blackboard course site using your Mason email name (everything before "@masonlive.gmu.edu) and email password. The course site will be available on January 19, 2015.

The delivery of this course combines discussion, independent study, student group presentations, writing, and online meetings/assignments. Access to Blackboard and GMU email are required to participate successfully in this course. All communication and announcements from the instructor will be sent via Blackboard or to students' George Mason University email addresses.

In our online learning community, we must be respectful of one another. Please be aware that innocent remarks can be easily misconstrued. Sarcasm and humor can be easily taken out of context. When communicating, please be positive and diplomatic. I encourage you to learn more about Netiquette.

Because of the online nature of the course, students need at minimum access to a computer with internet access, a microphone and headphones in order to participate in online class meetings effectively. More information about technology specifications can be found at http://masononline.gmu.edu/faqs/ (the Online Learning site for George Mason University).

TECHNICAL REQUIREMENTS:

To participate in this course, students will need the following resources:

- Access to a Windows or Macintosh computer with at least 2 GB of RAM and to a fast, reliable broadband Internet connection (e.g., cable, DSL). For optimum visibility of course material, the recommended computer monitor and laptop screen size is 13-inches or larger. For the amount of computer hard disk space required to take an online course, consider and allow for the space needed to: 1) install the required and recommended software and, 2) save your course assignments.
- You will need computer speakers or headphones to listen to recorded content.
- A headset microphone for use with the Blackboard Collaborate web conferencing tool
- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox. Opera and Safari are not compatible with Blackboard;
- Consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course. To access Blackboard Courses log into http://mymason.gmu.edu, select the Courses Tab.
- To access Blackboard Collaborate select Tools from the Blackboard Course Menu, then select Blackboard Collaborate.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of the course requirements.
- You will need access to Microsoft Office.
- For hardware and software purchases, visit Patriot Computers.
- The following software plug-ins for Pcs and Macs respectively, available for free downloading by clicking on the link next to each plug-in:
  - Adobe Acrobat Reader: http://get.adobe.com/reader
  - Windows Media Player: http://windows.microsoft.com/en-US/windows/downloads/windows-media-player
  - Apple QuickTime Player: www.apple.com/quicktime/download/
- **Note**: If you are using an employer-provided computer or corporate office for class attendance, please verify with your systems administrators that you will be able to install the necessary applications and that system or corporate firewalls do not block access to any sites or media types.

EXPECTATIONS:

- **Course Week:**
  Our course week will begin on the day that our synchronous meetings take place as indicated on the Schedule of Classes.
- **Log-in Frequency**:

Students must log-in for all scheduled online synchronous meetings. In addition, students must actively check the course Blackboard site and their GMU email for communications from the instructor, at a minimum this should be 3 times per week.

- **Participation**: Students are expected to actively engage in all course activities throughout the semester, which include viewing of all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- **Technical Competence**: Students are expected to demonstrate competence in the use of all course technology. Students are expected to seek assistance if they are struggling with technical components of the course.
- **Technical Issues**: Students should expect that they could experience some technical difficulties at some point in the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- **Workload**: Expect to log in to this course **at least 3 times a week** to read announcements, participate in the discussions, and work on course materials. Remember, this course is **not** self-paced. There are **specific deadlines** and **due dates** listed in the **CLASS SCHEDULE** section of this syllabus to which you are expected to adhere. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- **Advising:** If you would like to schedule a one-on-one meeting to discuss course requirements, content or other course-related issues, and you are unable to come to the Mason campus, we can meet via telephone or web conference. Send me an email to schedule your one-on-one session and include your preferred meeting method and suggested dates/times.
- **Netiquette:** Our goal is to be **collaborative**, not combative. Experience shows that even an innocent remark in the online environment can be misconstrued. I suggest that you always re-read your responses carefully before you post them to encourage others from taking them as personal attacks. **Be positive in your approach to others and diplomatic with your words.** I will do the same. Remember, you are not competing with each other but sharing information and learning from one another as well as from the instructor.

LEARNER OUTCOMES or OBJECTIVES:

This course is designed to enable students to:

A. Understand the learning theories fundamental to mathematics education.
B. Understand the developmental progressions underpinning mathematics learning.
C. Develop an understanding of various forms of mathematics learning assessment related to theories of mathematics learning.
D. Understand the assessment of students' thinking at multiple levels.

PROFESSIONAL STANDARDS (National Council of Teachers of Mathematics (NCTM)): In their role as teacher, lead teacher, and/or coach/mentor, elementary mathematics specialist candidates:

A. Standard 3: Content Pedagogy

d. Provide students and teachers with opportunities to communicate about mathematics and make connections among mathematics, other content areas, everyday life, and the workplace.

f. Plan, select, implement, interpret, and assist teachers in using formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students.

g. Monitor students' progress and assist others, including family members, administrators and other stakeholders, in making instructional decisions and in measuring and interpreting students' mathematical understanding and ability using formative and summative assessments.

B. Standard 4: Mathematical Learning Environment

a. Exhibit knowledge of child, pre-adolescent, and adult learning, development, and behavior and demonstrate and promote a positive disposition toward mathematical processes and learning.

C. Standard 5: Impact on Student Learning

a. Verify that elementary students demonstrate conceptual understanding; procedural fluency; the ability to formulate, represent, and solve problems; logical reasoning and continuous reflection on that reasoning; productive disposition toward mathematics; and the application of mathematics in a variety of contexts within major mathematical domains.

c. Collect, organize, analyze, and reflect on diagnostic, formative, and summative assessment evidence and determine the extent to which students' mathematical proficiencies have increased as a result of their instruction or their efforts in coaching/mentoring teachers.

D. Standard 6: Professional Knowledge and Skills

b. Engage in and facilitate continuous and collaborative learning that draws upon research in mathematics education to inform practice; enhance learning opportunities for all students' and teachers' mathematical knowledge development; involve colleagues and other school professionals, families, and various stakeholders; and advance the development in themselves and others as reflective practitioners.

REQUIRED TEXTS:

Donovan, M. S. & Bransford, J. (2004). *How students learn: Mathematics in the classroom.* Washington D.C., National Research Council.

Isles, D. (2011). *How to assess while you teach math K-2: Formative assessment practices and lessons.* Sausalito, CA: Math Solutions.

Joyner, J.M. and Muri, M. (2011). *INFORMative assessment: Formative assessment to improve math achievement, grades K-6.* Sausalito, CA: Math Solutions.

Additional readings will be posted on Blackboard.

COURSE ASSIGNMENTS AND EXAMINATIONS:

This course will introduce students to the diverse learning theories and associated assessment practices specific to mathematics education. Topics will also include the historical development of learning theories as well as emerging theories. Assessment topics will include test design, problem-based assessment as well as other forms of assessment of mathematics learning across K-8. The course is intended for mathematics specialists, mathematics teachers, and pre-service mathematics teachers interested in problems of learning and assessment in mathematics education. All assignments are to be completed on time so that class members might benefit from the expertise and contributions of their colleagues. Late assignments will be worth a lower grade. ***Additional details and rubrics for all assignments will be posted on Blackboard. Please review these materials!***

1. Assignment descriptions

a. Mathematics Assessment Autobiography – (5%)

Turned into Blackboard Assignments: Last_Assignment_CourseSection (i.e. Smith_MathAutobiography_EDCI644DL1)

How you teach is inseparable from what you believe about mathematics, learning, and teaching. This assignment is intended to bring to light your educational and other personal experiences that influence your expectations and understanding of mathematics, teaching and learning. The following reflection questions should be addressed:

- How do you best learn mathematics yourself? How has your background in mathematics influenced your work as a teacher? What are your views on how students can better learn mathematics? What factors do you think are most influential in impacting student learning?
- What do you see as the primary purpose of assessment? What methods or techniques do you currently use to assess what your students know and are able to do? How do your students use assessment to enhance their own learning? How do you use the results of classroom assessment? How are the results of external assessments used in your school or district?

b. Online Assessment Tool Analysis Video—(20%)

Turned into Blackboard File Exchange & Blackboard Assignments: Last_AssessmentResource_CourseSection (i.e. Smith_MathSolutionsInterviews_EDCI644DL1)

Students will prepare a short video that explains and summarizes a particular type of online mathematics assessment (e.g., formative, summative, portfolios, multiple-choice, warm-ups) that could be used with teachers. Learning how to effectively and efficiently prepare materials for teachers is an ability mathematics specialists need to develop and to refine. The goal is for you to learn about the type of assessment and to learn how to disseminate information to adult learners.

c. Group Mathematics Topics and Learning Progression Project —(25%)

Turned into Blackboard File Exchange & Blackboard Assignments:
Last_Assignment_CourseSection (i.e. SmithBakerJones_K5NumberOperations_EDCI644DL1)

In groups, the students will explore research literature on their topic, create an annotated bibliography of the literature, select an article that could be shared with teachers, prepare an appropriate assessment within the topic, and prepare a handout on the topic for their peers. Students will explore and present information on one of the following topics and how they address learning progressions for students:

- **Presentations in Class 6**
  - K-5 Progression on Number and Operations - Base Ten
  - K-5 Progression on Counting and Cardinality and Operations and Algebraic Thinking

- **Presentations in Class 7**
  - 3-5 Progression on Number and Operations – Fractions
  - 6-8 Progression on the Number System

- **Presentations in Class 8**
  - K-5 Progression on Statistics and Probability
  - 6-8 Progression on Expressions and Equations

d. Clinical Interview – (30%)
Turned into TaskStream as: Last_Assignment_CourseSection
(i.e. Smith_ClinicalInterview_EDCI644DL1)

Effective teaching requires a keen awareness of how and what your students are thinking and understanding. The experience of conducting a clinical interview is intended to increase your awareness of students' thinking and learning in a detailed manner about a particular mathematics topic. The other focus of this assignment is on concrete manipulatives and their relationship to learning. So, you should select a manipulative (or manipulatives) to accompany the task and then assess how well the manipulative helped the learner to solve the problem. This is your Performance Based Assessment for this course. See the project description and rubric which follow the course schedule.

e. Final Reflection—(5%)
Turned into Blackboard Assignments as: Last_Assignment_CourseSection
(i.e. Smith_FinalReflection_EDCI644DL1)

This assignment is intended for you to reflect upon the knowledge you have gained this semester and how it is informing your beliefs and practices. The following reflection questions should be addressed:

- What do you currently believe regarding the assessment of mathematics? How are these beliefs reflected in your actions? Which of these beliefs and actions support student learning?
- Read your reflection from the beginning of the semester. How has your mindset changed? What has stayed the same? Did something impact your growth this semester?
- What are your future goals?

f. Participation (15%)

The quality of this course depends heavily and primarily on the regular attendance and participation of all involved. Participation will include taking part in discussions informed by critical reading and thinking and sharing with the class the products of various reading/writing assignments and teacher leader experiences.

Attendance. It is your responsibility to attend all class sessions. Please report your reasons for any absences to the instructor in writing. Tardiness. It is your responsibility to be on time for each class session. Please report your reasons for any tardiness to the instructor in writing. Class materials will be posted for each class session on Blackboard. Students are responsible for reviewing these materials and submitting required artifacts (where appropriate) to online class discussion boards.

	LEVEL OF PERFORMANCE			
ELEMENT	***Distinguished*** *(9 – 10 points)*	***Proficient*** *(8 points)*	***Basic*** *(6 - 7 points)*	***Unsatisfactory*** *(1 - 5 points)*
Attendance & Participation	The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence. The student actively participates and continually supports the members of the learning group and the members of the class. Presentations demonstrate a deep knowledge of content as well as implications for teaching.	The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence. The student makes active contributions to the learning group and class. Presentations demonstrate sufficient knowledge of content as well as implications for teaching.	The student misses 1 or 2 classes and follows outlined procedures in case of absence. At times the student is not prepared for class. The student is on time, prepared for class, and participates in group and class discussions. Presentations demonstrate minimal knowledge of content and/or implications for teaching.	The student is frequently late for class or absences are not documented by following the outlined procedures. The student is frequently not prepared for class and does not actively participate in discussions. Presentations are lacking knowledge of content and connections to teaching.

2. Assignment and examination weighting

5%	Mathematical Assessment Autobiography
20%	Online Assessment Tool Analysis Video
25%	Group Mathematics Topics and Learning Progressions Project
30%	Clinical Interview
5%	Final Reflection
15%	Participation

3. Grading policies

The evaluation criteria utilizes the graduate grading scale and is as follows:

A	93%-100%	B+	87%-89%	C	70%-79%
A-	90%-92%	B	80%-86%	F	Below 70%

TASKSTREAM REQUIREMENTS

Every student registered for any Mathematics Education Leadership course with a required performance-based assessment is required to submit this assessment, the Clinical Interview to TaskStream (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete (IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

GMU POLICIES AND RESOURCES FOR STUDENTS

a. Students must adhere to the guidelines of the George Mason University Honor Code (See **http://oai.gmu.edu/the-mason-honor-code/).**

b. Students must follow the university policy for Responsible Use of Computing (See **http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).**

c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.

d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance (See **http://caps.gmu.edu/).**

e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester (See **http://ods.gmu.edu/).**

f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing (See

http://writingcenter.gmu.edu/).

ATTENDANCE POLICY

Students are expected to attend the class periods of the courses for which they are registered. In-class participation is important not only to the individual student, but also to the class as a whole. Because class participation may be a factor in grading, instructors may use absence, tardiness, or early departure as de facto evidence of nonparticipation. Students who miss an exam with an acceptable excuse may be penalized according to the individual instructor's grading policy, as stated in the course syllabus (GMU University Catalog; AP 1.6; See http://catalog.gmu.edu/content.php?catoid=25&navoid=4845#attendance)

PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times.

CORE VALUES COMMITMENT

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: **http://cehd.gmu.edu/values/.**

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website http://gse.gmu.edu/.

PROPOSED CLASS SCHEDULE:

NOTE: This schedule is subject to change. Any change will be announced in class or via e-mail and posted on the Blackboard site for the course. Additional readings may be found on Blackboard.

HSL = How Students Learn K-2 = How to Assess While You Teach Math INFORM = INFORMative Assessment

	Date	Readings Due	Topics	Assignments Due
1	**Tuesday** January 20th **Wednesday** January 21st	HSL: Ch. 1	Technology Briefing Class Overview Introduction	**Create Collaborate Profile (Including Picture)**
2	**Tuesday** January 27th **Wednesday** January 28th	HSL: Ch. 5	Principles of Learning Theories Mathematical Understanding	**Mathematics Autobiography**
3	**Tuesday** February 3rd **Wednesday** February 4th	INFORM: Ch. 2 INFORM: Ch. 3	Formative Assessment: Decision Making Learning Targets	
4	**Tuesday** February 10th **Wednesday** February 11th	INFORM: Ch. 4 K-2: p. 1-15 Fernandez (2009)	Formative Assessment: Oral Assessments Designing A Clinical Interview ELLs	**Clinical Interview Part I: DRAFT**
5	**Tuesday** February 17th **Wednesday** February 18th	INFORM: Ch. 6 INFORM: Ch. 8	Formative Assessment: Rich Tasks Good Questions	
6	**Tuesday** February 24th **Wednesday** February 25th	HSL: Ch. 6	Whole Number Sense Learning Progressions	**Group Presentations**
7	**Tuesday** March 3rd **Wednesday** March 4th	HSL: Ch. 7	Rational Numbers Learning Progressions	**Group Presentations**
	Tuesday March 10th **Wednesday** March 11th	**Spring Break: No Class Meeting**		
8	**Tuesday** March 17th **Wednesday** March 18th	HSL: Ch. 8	Functions Probability & Statistics Learning Progressions	**Group Presentations** **Group Mathematics Topics and Learning Progressions Project**
9	**Tuesday** March 24th	INFORM: Ch. 5	Formative Assessment:	**Online Assessment Tool**

	Wednesday March 25th	INFORM: Ch. 7	Written Assessments Student Self-Assessment & Responsibility	**Analysis Video**
10	**Tuesday** March 31st **Wednesday** April 1st		Video Assessment Tool Reflection VDOE Scavenger Hunt Clinical Interview Work Session	**Clinical Interview Part I & II DRAFT**
11	**Tuesday** April 7th **Wednesday** April 8th	K-2: p. 15-34	Student-Led Formative Assessment Practices	
12	**Tuesday** April 14th **Wednesday** April 15th	INFORM: Ch. 9 Mathematics Education Dialogues (NCTM, 1998)	Assessment to Inform Inferences & Actionable Feedback State Testing In Practice: Virginia Mathematics SOL	
13	**Tuesday** April 21st **Wednesday** April 22nd	INFORM: Ch.10 Wilson (2007)	Informative Assessment for Long-Term Success State Testing In Practice: Non-Common Core State Mathematics Assessments	**Clinical Interview Part I & II DRAFT**
14	**Tuesday** April 28th **Wednesday** April 29th	Gewertz (2014a) Gewertz (2014b) Larson & Leinwand (2013)	State Testing In Practice: Common Core Mathematics Assessments	
15	**Tuesday** May 5th **Wednesday** May 6th		Sharing of Clinical Interview Projects **Final Reflection (Written In Class)**	**Clinical Interview Final (Part I and II) Due To TaskStream**

Performance Based Assessment for the Course (Clinical Interview):

CLINICAL INTERVIEW ASSESSMENT PART I: The Plan

Student Description:

Describe the students you plan to assess. Include information you gathered about the child (grade level, age, gender, race, and academic ability level). What do you know about the child's level of understanding about the topic *before* the assessment?

The Mathematics Concept Development & Learning Progression:

Select one specific mathematics concept to assess during the assessment. Examples of concepts might include patterns, sorting, addition of whole numbers, division of fractions, finding averages, percent, geometric shapes, or length measurement. Tell why this concept is appropriate for this child at this particular grade level.

Different Forms of Representation:

During the assessment, assess the child using three different forms of representation. Identify the three different forms of representation you will use during the assessment with at least one example in each form. *Concrete* representations include manipulatives, measuring tools, or other objects the child can manipulate during the assessment. *Pictorial* representations include drawings, diagrams, charts, or graphs that are drawn by the child or are provided for the child to read and interpret. *Symbolic* representations include numbers or letters the child writes or interprets to demonstrate understanding of a task.

Tasks & Questions:

Design tasks and questions that use three different forms of representation (concrete, pictorial, symbolic) to diagnose the child's understanding of ONE basic concept. Go beyond the basic level of determining the child's factual knowledge of the concept by asking questions that determine how much the child understands about the concept. For example, suppose you are assessing the concept of ADDITION. (1) Create several tasks where the child uses concrete manipulatives to demonstrate his or her understanding of addition; ask questions about the child's understanding of the addition tasks with manipulatives. (2) Create several tasks where the child is asked to create or interpret drawings to demonstrate her understanding of addition; ask questions about the child's understanding of these tasks with pictorial models; (3) Create several tasks where the child uses abstract symbols (and letters) to demonstrate her understanding of addition; ask questions about the child's understanding of these addition tasks using the symbols.

* Goal is to assess students' conceptual understanding, procedural fluency, strategic competence, adaptive reasoning and productive dispositions towards mathematics.

CLINICAL INTERVIEW PART II: The Report

Student Work Samples:

Collect and document three different forms of representation (concrete, pictorial, symbolic) during the assessment to elicit the child's level of understanding. The report must include samples of the child's computations, writings and drawings, as well as a description of how the child used concrete objects during the assessment or photographs of the child's work.

Question & Response Assessment Segments

Audiotape the assessment. For the report, choose segments of your questions and the child's responses. Indicate what you said and what the child said.

Questioning Competence:

The questions and follow-up questions that you use during the assessment will be evaluated. You will be evaluated on the *quality* and the *types* of follow-up questions you use during your interaction with the child. Your textbooks and readings provide direction on the types of questions that are appropriate in an assessment and that go beyond factual information to deeper understanding.

Evaluation of Child's Mathematical Knowledge:

Write an evaluation of the child's mathematical knowledge in the content area. Use evidence from the assessment to support your conclusions. Use your textbook to help you describe the specific types of behaviors and verbalizations you observed using specific mathematical terms. For example, if you conclude that the student has an understanding of addition of fractions with like denominators, you should base this on evidence that you present that shows the child was able to represent $\frac{3}{5}$ and $\frac{4}{5}$ with fraction pieces (concrete), and/or the child used a drawing to find the sum (pictorial), and/or the child computed the answer with symbols (abstract). Give specific examples of the child's responses to support your statements.

Instructional Plan:

Develop a suggested instructional plan for the child. Your assessment of the child's thinking should give you some information for planning instruction. Your suggestions should be based on what you learned about the child during the assessment. Many general suggestions can be valuable for children. However, your recommendations should relate to specifics. For example, if you assessed basic division concepts and you suggest that the instructional plan for the child should include more manipulatives, that would be an important teaching strategy, but it would be too general. You should be more specific about why and how manipulatives might be used. Example: "The student had difficulty making 3 equal groups from a set of 21 chips; therefore, the student should be given more experiences with grouping and partitioning manipulatives in sets of 15 to 30 to develop both the measurement and partitive concepts of division."

Reflection of the Assessment Process:

Comment on the assessment process. How long did the assessment last? What did you learn about assessment techniques? What did you learn about your ability to create mathematics questions and tasks for this concept? If you were to conduct the assessment with another child, would there be any changes in your questions, either the order or the level of difficulty, or the materials you had available for the child to use? Why or why not? What have you learned about how children learn mathematics from this assessment? How might a classroom teacher use the diagnostic mathematics assessment to assess children?

RUBRIC FOR CLINICAL INTERVIEW ASSESSMENT REPORT

Criteria	Exceeds Requirements (A)	Meets Requirements (A-,B+,B)	Needs Improvement (C)	Inc.	*Weight*
Is the required information present about the child assessed?	5 In addition to the required information, the Report includes information about the child's performance in other academic, social, or behavioral areas.	4 3 2 The Report includes the child's grade level, age, gender, race, academic ability level, and the child's level of understanding about the mathematics concept.	1 One or more of the required descriptive items about the child is missing.	0	x .05 =
Has the teacher selected one specific mathematics concept and assessed the concept using three different forms of representation (concrete, pictorial, abstract)?	5 Information on age-appropriate variations of the mathematics concept was gathered in preparation for the assessment. One math concept is clearly described and mathematically accurate. Three different forms of representation, with different examples in each form, are designed for use in interesting and creative ways. Connections are made among representational forms. Cite references.	4 3 2 One age-appropriate mathematics concept is selected, mathematically accurate, and clearly described. Three different forms of representation are described and used appropriately to assess the mathematics concept. Different examples may be used within each representational form.	1 One or more mathematics concepts are selected. They may not be age-appropriate. The Report is missing one or more forms of representation.	0	x .10 =
Do the tasks and questions match the specific mathematics concept being assessed? Is there variety in the tasks and questions used for each of the three different forms of representation?	5 In addition to the tasks/questions being aligned with the math concept, there are questions that differentiate and provide extensions for different levels of student performance. In addition to the variety of tasks/questions for each of the three forms of representation, tasks that show creativity and will be motivating for a child are included. Cite references.	4 3 2 The tasks and questions designed for the assessment are aligned with the mathematics concept being assessed. There are a variety of tasks and questions for each of the three forms of representation.	1 The tasks and questions designed for the assessment are not clearly aligned with the mathematics concept being assessed. The Report is missing tasks/questions that address one or more of the forms of representation.	0	x .15 =
Are the child's work samples included with three different forms of representation present in the work samples?	5 In addition to the variety of work samples from the child showing examples in each of the three forms of representation, a creative way of providing an explanatory overview of the child's work is included.	4 3 2 There are a variety of work samples from the child included showing examples in each of the three forms of representation. (concrete, pictorial, abstract)	1 There is only one work sample in each of the three forms of representation or work samples from one form of representation are missing.	0	x .10 =
Is the required question and response assessment transcript of excerpts present?	5 The Report includes a collection of excerpts from the transcript of the mathematics assessment that includes descriptive information on both the behaviors and the actual verbalizations that occurred during the assessment.	4 3 2 The Report includes a transcript of several excerpts from the mathematics assessment using the teacher and the child's actual verbalizations from the assessment (T for teacher; C for child).	1 The Report includes excerpts of the mathematics assessment, but some parts of the assessment conversation are missing.	0	x .15 =
Do the initial and follow-up questions	5	4 3 2	1	0	x .10 =

used by the teacher demonstrate variety and higher levels of questioning? Are specific follow-up questions used appropriately?	The transcript shows that during the assessment, the teacher used a variety of questions to encourage the child to express his/her thinking, used many higher-level questions to encourage deeper thinking and responses from the child, and used specific follow-up questions to probe for understanding.	The transcript shows that during the assessment, the teacher used a variety of higher-level questions to encourage deeper thinking and appropriate follow-up questions to probe for understanding.	The transcript shows that during the assessment, the teacher used very few probing and follow-up questions when a specific follow-up question would have been appropriate.		
Does the <u>evaluation</u> accurately represent the child's current level of understanding on this concept using supporting evidence and work samples from the assessment?	5 The evaluation provides an accurate and detailed description of the child's current level of understanding on the concept. Many different and specific examples from the assessment are given, including the child's quotations, student work, and information from other sources on math development, to provide supporting evidence for the evaluation of the child.	4 3 2 The evaluation provides an accurate description of the child's current level of understanding on the mathematics concept. Different examples from the assessment are given, including the child's quotations and student work, to provide supporting evidence for the evaluation.	1 The evaluation provides a minimal description of the child's understanding on the mathematics concept. A few examples from the assessment are given, but there is not enough information to provide supporting evidence for the evaluation.	0	x .15 =
Does the <u>instructional plan</u> prescribe developmentally appropriate next steps for instruction and take into account the child's current level of understanding on this concept?	5 The plan is a creative, detailed description of developmentally appropriate next steps for instruction taking into account the child's current level of understanding. The plan identifies many specific examples of activities and tasks that would further enhance this child's knowledge of this concept. Information from other sources on math development and child development was used. Cite references.	4 3 2 The instructional plan describes developmentally appropriate next steps for instruction. The plan identifies several specific examples of tasks that would be appropriate to further enhance this child's knowledge on this concept. The plan describes these tasks in relation to the child's current level of understanding.	1 The plan describes some next steps for instruction that may not be developmentally appropriate. The plan gives general (rather than specific) examples of activities and tasks for the child. The tasks may not be appropriate either for the child or the development of the math.	0	x .10 =
Is there an appropriate <u>reflection</u> and evaluation of the assessment process?	5 In addition to the required information, the Report includes a detailed analysis, self-reflection, and self-evaluation of the assessment process.	4 3 2 The Report includes a reflection and evaluation on the assessment process including the required elements.	1 The Report does not include one or more of the required elements for the reflection.	0	x .10 =
TOTAL SCORE					