

Interview/Assessment Report

The **goal** of this assignment is to provide the preservice elementary mathematics teacher with an experience through which to consider general development and mathematics concept learning expectations as described in assigned readings and class discussions for a specific elementary student, to closely observe, informally assess, and analyze the mathematics knowledge and reasoning strategies of an elementary school student, and to develop a plan for instruction appropriate for an identified need of the student.

The preservice teacher will be expected to complete the following:

- Develop informal assessment questions appropriate for the developmental level of the student and aimed at uncovering the conceptual knowledge of the student as well as misconception and gaps in understanding
- Informally assess the student using an interactive interview approach incorporating opportunities for the student to explain and demonstrate his/her thinking. Use materials, calculator, paper and pencil, drawings and/or spoken or written tasks as appropriate.
- Report findings from the interview and assessment, focusing on observations that are consistent (or inconsistent) with expectations as described in assigned readings and class discussions.
- Identify one or more learning objectives for the student based upon observations from the assessment and interview.
- Analyze the instructional needs of the student based upon the assessment and interview. Propose and develop a conceptually oriented lesson plan intended to address observed misconception or gaps in knowledge that were observed in the student during the assessment and interview.

To complete this assignment, you will identify an elementary school student to observe and obtain permission to conduct the interview/assessment. You will develop an assessment instrument containing approximately 4 to 6 questions selected to uncover the reasoning processes and conceptual knowledge of the student in a particular area of elementary mathematics. The mathematics area selected should be developmentally appropriate for the student. The questions should be appropriate for use with an elementary student and designed to reveal aspects of the student's conceptual knowledge of the involved mathematics.

The assessment questions will be typed and spaced so that the interviewer can record notes regarding observations of the student's strategies by hand on the question page.

You will assemble all needed manipulative materials and meet informally with the student to conduct the interview. Explain to the student that the purpose of the interview is for you to improve your teaching knowledge, and that he/she should not be concerned about whether answers are right or wrong. Indicate that some of the questions may seem too easy. Others may seem much too difficult, and that you are simply trying to find out what he/she knows about math. The interview session is intended to be interactive. Allow the student to explain his/her thinking whenever possible. Encourage the student to tell you what he/she is thinking even if the student is not sure of the answers. Do not hand a copy of the assessment to the student and direct that he/she complete it in isolation. Instead, read the questions to (with) the student. Assist the student in understanding the questions. Provide guidance if the student requests. Most importantly, encourage the student to explain his/her thinking about each problem, and ask follow-up questions as needed that enable you to observe the student's reasoning processes.

Remember, that instruction can be integrated with this kind of informal assessment at any point. If a student simply does not know how to answer a question or use some manipulative material, you may switch from an assessment mode to an instructional model. Give the student some input about the question. This provides you with a unique opportunity to watch how the student learns.

Following the interview, you will prepare an analytical report about your student's thinking. Begin the report by providing initial information about your student. Give the student an alias name in your report and indicate the age and grade level. If your student has special needs of which you are aware, you may include this information in your first paragraph. Then, in the body of your report describe your observations about the student's reasoning processes and solution strategies. Give details about how your student reasoned with the questions. State your reasons for omitting any questions that you may have decided not to ask. Also, indicate any additional questions you asked that were not on your assessment. Identify characteristics in your student's reasoning that were consistent with remarks in text readings and class discussions concerning patterns in learners' development. Also identify characteristics that appeared to contradict course readings and discussions. Identify mathematical concepts that the student appeared to have attained, as well as misconceptions or gaps in knowledge and give justification for your conclusions based on the student's work.

As you are preparing your report, keep in mind that it is inappropriate to use a judgmental tone in describing the student's reasoning. Your purpose is to objectively observe and report. Do not include statements that provide little information about the student's reasoning, such as, "I was really surprised that my student could do this problem. I couldn't do problems like that when I was his age." Also, avoid statements such as, "I'm really glad we did this assignment. I learned so much, and it was so much fun." These statements are impertinent to the report. Also, statements such as, "We skipped question #3 because the student told me he hadn't done this kind of problem before," does not constitute insightful decision-making. If you feel the question is developmentally appropriate, go ahead and ask it to see how the student reasons about it.

Close your report by selecting one misconception or knowledge gap that could be addressed in a follow-up lesson with the student. Develop and state a conceptually-based lesson plan objective based upon your observation of this knowledge gap or misconception. Then provide a discussion of a lesson plan idea designed specifically to address that student's needs. Prepare the plan as if you will be working with that student alone. State the learning objective, materials to be used, and outline the procedures you will use with the student. Include a description of the activities in which you would have the student engage, including samples of work the student will complete. Be sure to list one or more "key questions" that you can use to assess your student's understanding of the concept and attainment of the lesson objective. You are not required to schedule a follow-up visit with your student to teach the lesson, unless arrangements can be made conveniently. In that case, close this report with a one-paragraph summary of the effectiveness of the lesson with your student.

This report is due on _____