

Concrete Operational Test Assignment

CI 171 ECE

CI 171ECE Conservation Assignment Spring 2012



	POSSIBLE POINTS	ASSIGNED POINTS
Four children assessed/two conversations	1	1
Process clearly described	3	3
Responses adequately documented	3	3
Interpretation	2	2
Grammar and Writing	1	1
TOTALS	10	10

[REDACTED]
3-8-12

CI 171 ECE

Concrete Operational Test Assignment

Name: Marco

Age: 5 ½

Grade: Kindergarten

Setting: Classroom

Tasks: - Conservation of number
- Conservation of length

Procedure description:

Conservation of number: For this task I used black and red checkers from a set that I had at home. I placed eight red checkers in a row and asked Marco to put as many black checkers as he sees in my row. He grabbed a handful of the black checkers and lined them up with the row of red. Once he had done this I asked if there were as many black checkers as there were red and he responded with yes. I asked if there were more red checkers or more black checkers and he responded that "They are the same." I then collapsed the row of red so that it was much shorter than the black row and asked him if now there were more red or more black. He said that "there are more black checkers." I asked if they had the same number of checkers in each and he said "No, there are more checkers on the black row." I asked him why and he said that "The black row has more because its longer." I asked him which row had more checkers in it and he said "Black, it's longer."

Conservation of length: For this task I used two popsicle sticks given to me by the teacher. I first placed the two sticks side by side and asked Marco if they were the same. He said "Yup." I then placed one stick (A) slightly ahead of the other (B) while still keeping them parallel and asked if they were still the same or if one was longer. He responded that "A is longer than B." I asked why and he said that "It goes out more." Next, I left the A stick where it was and moved the B stick back farther but not too far. Again I asked which was longer and Marco replied "It's still A, its longer." Lastly, I moved the B stick back even farther and asked again which was longer. Marco said. "It's still A." He looked at me like I was crazy to keep asking him the same question when he felt he clearly had the correct answer.

Interpretation: Based on my observation Marco is not yet a conserver and is still in the Preoperational stage. The two tasks I gave him were Conservation of number and Conservation of length and based on his responses to both I am certain that I already know what his responses would be to the task of Conservation of liquids. Marco definitely showed a clear sense of centration as he only ^{paid} ~~payed~~ attention to one aspect of the objects in the tasks and could not use ~~reversibility~~ ^{ok} to understand the changes. The responses he gave are consistent with his age and stage.

[REDACTED]
3-8-12

CI 171 ECE

Concrete Operational Test Assignment

Name: Brandi

Age: 5 ½

Grade: Kindergarten

Setting: Classroom

Task: - Conservation of number
- Conservation of Length

Procedure description:

Conservation of number: For this task I used the same black and red checkers that I had used with Marco. I placed eight red checkers in a row and asked Brandi to put as many black checkers as she saw in my row. She counted the checkers in my row and pulled the same number of black to make her own and lined them up with the row of red. Once she did this I asked if there were as many black checkers as there were red and she said "Yes, I counted them." I asked if there were more red checkers or more black checkers and she responded that "They're the same." I then collapsed the row of red so that it was much shorter than the black row and asked her if now there were more red or more black. She said "More black." I asked if they had the same number of checkers in each and she said "No." I asked her why and she said that "They can't be the same because the black row is longer." I asked which row had more checkers in it and she said "The black one, 'cause it's bigger."

Conservation of length: For this task I used the same two popsicle sticks given to me by the teacher. I first placed the two sticks side by side and asked Brandi if they were the same. She examined them for a minute and said "Yeah, they look the same." I then placed one stick (A) slightly ahead of the other (B) while still keeping them parallel and asked her if they were still the same or if one was longer. Again she took a minute to observe and said that "A is longer." I asked why and she said " 'cause its longer, its bigger." Next, I left the A stick where it was and moved the B stick back farther but not too far. Again I asked her which was longer and Brandi replied "A's still longer." Lastly, I moved the B stick back even farther and asked again which was longer. She said. "A is still longer, you can't make it shorter."

Interpretation: Through observation I can determine that Brandi is not a conserver. Although she worded her answers differently, she shared much the same thinking as Marco did. The two are approximately the same age born one month apart according to their teacher. Like Marco, Brandi is still in the preoperational stage and still showing distinct signs of centration, paying *1 good-year* attention to only one aspect of the objects in the tasks. Similarly, she was very confident in the answers she gave me, never wavering in her resolve. What I have learned about Brandi seems consistent with her stage and age range.

Sunny Gallegos

3-8-12

CI 171 ECE

Concrete Operational Test Assignment

Name: Lizette

Age: 9

Grade: Third

Setting: Classroom

Task: - Conservation of Number
- Conservation of Liquids

Procedure description:

Conservation of number: For this task I used the same black and red checkers that I had used with Marco and Brandi in the Kindergarten classroom. I placed the eight red checkers in a row and asked Lizette to put as many black checkers as she saw in my row. She counted the checkers in my row and pulled the same number of black to make her own row under the red. Once she did this I asked if there were as many black checkers as there were red and she said "Yes." I asked if there were more red checkers or more black checkers and she responded that "They both have eight." I then collapsed the row of red so that it was much shorter than the black row and asked her if now there were more red or more black. She looked at me like I was crazy and said "They're the same, you just made one shorter." (**Compensation**) I asked if they had the same number of checkers in each and she said "Yeah, you just made that one shorter, there's still

eight of them.” (**Identity**) I asked her which one had more checkers in it and again she stated that “They’re the same.”

Conservation of liquids: I had two short clear cups, a bowl, and one tall glass for this task. I filled the two cups with the same amount of water and asked Lizzette if they were the same. She said “Yes.” I then poured one of the cups into the taller class and asked again which one had more water in it or if they were still the same. “They’re still the same.” She said “You just poured that one into something taller so it looks like more.” (**Compensation**) I poured the water from the tall glass back into the short cup and asked again if they were the same. She said “It’s the same water so it’s still the same amount.” (**Identity**) Next I poured the water from the short cup into a shallow bowl and asked again. “Seriously?” She said “The water doesn’t change just because you pour it into something else.” (**Negation**) I repeated this again except using four dixi-cups and asked her if they were the same now. She responded with “Why are you asking me this? The water doesn’t go anywhere else, it doesn’t go away. It’s the SAME. If you poured it back it would still be the same.” (**Reversibility**)

Interpretation: Through observation I think that it is safe to determine that Lizette is in the ^{Yes!} Concrete operational stage. She was not fooled by any of the experiments in these tasks and seemed a little irritated about the constant questioning of what she considered to be very obvious answers. She clearly understood Identity, Negation, Reversibility, and Compensation and used all of them in her arguments when responding to my questions. This is consistent with this stage and her age range.

3-8-12

CI 171 ECE

Concrete Operational Test Assignment

Name: Jorge

Age: 8

Grade: Third

Setting: Classroom

Task: - Conservation of number
- Conservation of Liquids

Procedure description:

Conservation of Number: For this task I used the same black and red checkers that I had used with Marco and Brandi in the Kindergarten classroom. I placed the eight red checkers in a row and asked Jorge to put as many black checkers as he saw in my row. He looked at my row and pulled the same number of black to make his own row under the red. Once he did this, I asked if there were as many black checkers as there were red and he said "Uh-huh." I asked if there were more red checkers or more black checkers and he said "They're the same, both have eight." I then collapsed the row of red so that it was much shorter than the black row and asked if now there were more red or more black. Like Lizette, he looked at me like I was crazy too and said "You just made the red one shorter, you didn't take any away." (~~Identity~~) I asked if they had the same number of checkers in each and he responded with "Yeah, there is still eight in red and

eight in black you didn't put any more." (**Negation**) I asked which one had more checkers in it and again he said that "They're the same. If you spread this one out like before, then they would look the same again." (**Reversibility**)

Conservation of liquids: I had two short clear cups, a bowl, and one tall glass for this task. I filled the two cups with the same amount of water and asked Jorge if they were the same. He said "Uh-huh." I then poured one of the cups into the taller class and asked again which one had more water in it or if they were still the same. "They're still the same, you just poured that one into something taller." (**Compensation**) I poured the water from the tall glass back into the short cup and asked again if they were the same. He said "It's still the same water." Next I poured the water from the short cup into a shallow bowl and asked again. He said "You poured the same amount, you didn't take any away or add more, why would it be different?" (**Identity/Negation**) I repeated this again except using four dixi-cups and asked him if they were the same now. He said "It's still the same, you just poured it into four, if you poured it back its still be the same." (**Reversibility**)

Interpretation: I think that it's fair to conclude that like Lizette, Jorge is also in the Concrete 1 year operational stage. He clearly used Identity, Negation, Reversibility, and Compensation in his arguments when explaining his answers to me. Although I did not do the Conservation of length task with Jorge given his responses to these two tasks I know what his responses would be. What I have learned about Jorge is consistent with his stage and age range.