

Vanderbilt Ecological Congruence of Teaching Opportunities in Routines (VECTOR) Classroom Version

Amy M. Casey, Peggy J. Freund, & R. A. McWilliam
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Rationale

Ecological congruence is a measure of the fit between the provision of particular types of supports and the need for those supports. We propose that, when assessing the fit between a child and his or her environment, the *opportunities* available in the environment must be considered, as well as the frequency with which the child takes *advantage* of the opportunities. Opportunities may be provided in the physical environment or by the adults present in the environment. Incongruence is found when the opportunities being provided do not fit with the child's use of supports; too few opportunities are provided by adults or the physical environment or the child is not taking advantage of the opportunities provided. Incongruence between a child and his or her environment can be resolved by making changes in the environment, changing the expectations for the child or activity, or intervening with the child to teach a particular skill. The VECTOR is designed to focus assessment of ecological congruence on three developmental domains: engagement, independence, and peer interactions.

Population and Setting

The VECTOR – Classroom is designed to be used with children 18 months to school age in a group setting. There is no prescribed schedule for when to use the VECTOR. It could be completed

1. Periodically to monitor fit and determine potential changes needed in the environment and adult interventions.
2. To monitor child progress.
3. When particular concerns have been identified.

Completing the Scale

1. Observe the child for at least 10 minutes during each of the routines applicable to the child's group setting.
2. For each of the 10 routines, rate nine items concerning the environment, adult interventions, and the child's performance.
 - a. For environment and adult interventions, rate the frequency with which each routine provides the opportunities referred to with the scale from 1 (*rarely*) to 5 (*most of the time*).
 - b. Then rate the child's performance, using the same scale, indicating if the child takes advantage of the opportunities provided.

Scoring

1. Sum the scores for **Opportunity** and divide by 6. Enter scores at the bottom.
2. Sum the scores for **Advantages** and divide by 3. Enter scores at the bottom.
3. Sum the scores for **Opportunity** (environment and adult interventions) for all routines and divide by 10 or by the number of routines observed if fewer than 10. Enter score in far right hand column.
4. Sum the scores for **Advantage** for all routines and divide by 10 or by the number of routines observed if fewer than 10. Enter score in far right hand column.
5. Analyze scores based on information provided below.
6. Implement changes and monitor success.

Analyses

1. *Determine the **overall goodness of the fit** between the child and his or her environment across the routines of the day.*

Compare the **O**pportunity and **A**dvantage scores for each routine at the bottom of the table. If the scores are consistently high and scores for **O**pportunity and **A**dvantage are similar, the fit is most likely good. If the **O**pportunity and **A**dvantage scores are all low or dissimilar the fit may not be good and further analysis is needed (see below).

2. *Determine the fit between the environment and the child for specific routines.*

Compare **O**pportunity and **A**dvantage scores for each routine at the bottom of the table. If the **O**pportunity score and **A**dvantage score for a routine are both low, look within the data for the routine to determine where environmental change may be needed (in the physical environment, in adult interventions, or in both the physical environment and adult interventions). Examine the scores for the three areas of functioning (engagement, independence, and peer interactions) to determine where specific change may be needed.

3. *Determine whether or not the child is taking advantage of the opportunities provided by the physical environment and adults.*

Compare **O**pportunity and **A**dvantage scores for each routine at the bottom of the table. If **A**dvantage scores are low and **O**pportunity scores are notably higher, it might suggest that the child is not taking full advantage of the opportunities provided. This discrepancy may be the result of skill deficits or challenging behaviors. Examining child scores within routines should help you

identify specific areas of concern related to the child's engagement, independence, and peer interactions.

4. *Determine and monitor the child's engagement, independence, and peer interactions across routines of the day.*

Examine the total child scores (column at right, second page) for engagement, independence, and peer interactions. If scores are lower than desired, examine individual scores across routines to determine strengths, needs, and trends.

Note: In some instances you might find that child **A**dvantage scores are higher than environmental scores. In this case, making specific changes to the environment might not be necessary for the child, although enriching the environment might further enhance the child's learning experiences.

Child's Name _____ Date _____
 Teacher _____ Observer _____
 Observer's role _____ Typical day for child Yes No
 If not typical, why? _____

Directions:
 1. Rate 9 items across 10 routines
 2. Sum scores for Opportunity and divide by 6. Enter score at bottom
 3. Sum scores for Advantage and divide by 3. Enter score at bottom
 4. Sum all Opportunity scores for all routines, divide by 10, enter last column
 5. Sum all Advantage scores for all routines, divide by 10, enter last column

Rating Scale		Arrival		Free Play		Meals/ Snacks		Circle		Structured Activities	
		1 Rarely	2 Some of the time	3 Some of the time	4 Most of the time	5 Most of the time	O	A	O	A	O
E n g a g e m e n t	Environment										
	1. Physical environment and available materials promote engagement										
	Adults										
2. Adults are responsive to the child and consistently promote higher levels of engagement											
Child											
3. Child is consistently engaged at his/her most sophisticated level											
I n d e p e n d e n c e	Environment										
	4. Routine allows independence										
	Adults										
5. Adults provide the least prompts necessary for independence											
Child											
6. Child completes routine independently											
P e e r i n t e r a c t i o n	Environment										
	7. The routine provides multiple opportunities for peer interaction										
	Adults										
8. Adults promote and reinforce peer interactions											
Child											
9. Child interacts frequently and appropriately with peers											
Totals											

O = Opportunities provided within the routine
A = Child takes advantage of the opportunities and instruction

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Rating Scale 1 _____ 2 _____ 3 _____ 4 _____ 5 Rarely Some of the time Most of the time		Outdoor Activity		Centers		Personal Hygiene		Story time		Movement and Music		Totals
		O	A	O	A	O	A	O	A	O	A	
E n g a g e m e n t	Environment											
	1. Physical environment and available materials promote engagement											
	Adults											
	2. Adults are responsive to the child and consistently promote higher levels of engagement											
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	3. Child consistently engaged at his/her most sophisticated level											
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