

Eccentric Circles

Objective

1. To increase positive fusional amplitudes
2. To increase negative fusional amplitudes

Equipment Needed

1. Keystone Opaque Eccentric Circles
2. Keystone Transparent Eccentric Circles
3. Pointer

Setup

1. Either have the subject hold the cards or place them in the Polachrome Illuminated Trainer, the horizontal holder or any other suitable device.
2. The cards should be held about 40 cm from the subject.
3. Begin with the two cards together with the "A"s touching.

Procedure

Convergence Therapy

1. The subject should see two cards at this point.
2. Ask the subject to try and cross his/her eyes and get the feeling of looking closer.
3. If he/she cannot do this voluntarily, use localization with a pointer to demonstrate the point to which he/she must converge to achieve fusion.
4. Tell the subject that when he/she achieves fusion he/she will see "three sets of circles."
5. Explain that he/she is to concentrate only on the middle set and is to ignore the two side images.
6. Ask him/her about the middle set of cards. He/she should be able to spontaneously indicate that he/she sees two circles, one larger than the other and that the larger one appears to be floating closer to him/her. In addition, he/she should see the word "clear", in focus. If he/she does not spontaneously respond with this information, ask the subject to relax their focus a little or maintain fusion for 5 seconds and see if the letters clear. It is important to make the subject aware that this perception of depth is a feedback cue about his/her performance.
7. Once he/she can achieve fusion ask him/her to hold the position for 5 seconds, look away momentarily, and look back at the cards and regain fusion. Instruct the subject to repeat these 10 times and then separate the cards about 1 centimeter and repeat the entire procedure again. Continue until he/she is able to achieve fusion, look away and back with the cards separated about 12 cm.

Divergence Therapy

1. The same general procedures are performed for divergence therapy except that the subject must now diverge behind the plane of the cards.
2. Because it is difficult for some subjects to visualize looking behind an opaque object, translucent Eccentric Circle cards are available for divergence therapy.
3. Subjects often experience some difficulty initially with this procedure. It is helpful to show them where they must look to achieve orthoptic fusion. To accomplish this tape a pointer to the wall at the subject's eye level. Have the subject stand about 3-4 feet away

