

Assessment of Object Permanence

A key concept is that of object permanence, where the pupil knows that an object continues to exist even when it is out of sight. The pupil carries a 'picture' of the object 'in their head' and will search for the object when it disappears from view. Many pupils who are young or who have severe learning difficulties do not understand that objects have this independent existence. For them, 'out of sight is out of mind'. Object permanence is probably a key milestone on the way to learning that objects have names.

In the Welsh *Routes for Learning* assessment materials (Ware et al, 2006) the development of object permanence is indicated as a key milestone on the routemap. A detailed exposition of the development of object permanence and associated search strategies is provided by Chris Kiernan in his 1981 book *Analysis of Programmes for Teaching*.

Kiernan argues that the origins of object permanence are complex. The development of object permanence is probably due to a range of recurring experiences, e.g. the pupil learns that the same people keep appearing to interact with him, familiar objects are used as part of care routines (e.g. a particular cup at drinks time) and in his play favourite items kept getting mislaid and are then found again. In *Analysis of Programmes for Teaching* there is a diagram which shows three related types of behaviour and it is possible to test for the pupil's stage of development by using just a few objects that the pupil likes very much and some easily moved items to use as screens (e.g. cloths, a hollow ball cut in half, a cardboard box, or small screens made out of cardboard).

On the left of the diagram are relatively simple behaviours. The first is simply tracking an object visually as it moves in front of the pupil. The others all indicate in some way that pupil probably has a sense of object permanence – the pupil looks to see where the object passes out of sight and even makes adjustments to look where it might reappear.

Smooth following. An object is shown to the pupil and is moved slowly across his visual field. The pupil follows the movement smoothly.

Relocates rapidly moving object. An object is held up – the pupil fixates. The object is then moved suddenly to another point in the visual field. The pupil must have an idea of permanence if he immediately looks at the object in its new position.

Looks at point of disappearance. An object is fixated by the pupil. The object is then moved slowly and silently behind a screen. If the pupil looks at the point of disappearance, and possibly also moves to see the object again, it is clear that he knows that it has not just ceased to exist.

Turns to relocate object passing behind him. An object is shown to the pupil. As he follows the object with his eyes it is silently taken around behind him. He follows the object as far as he can and *then turns to see it on the other side of him*. If he does this it shows that he has the idea of the object having continued existence.

Predicts point of re-appearance. An object is shown to the pupil and then moved slowly and silently behind a screen. The pupil predicts where the object will reappear on the other

edge of the screen if it continues at the same speed. Again, this behaviour shows the pupil's understanding of object permanence.

The central and rightmost stems show behaviours related more explicitly to object permanence and a range of search strategies.

Obtains partially hidden object. An object is partly hidden by a cloth or other screen. The pupil reaches for the object. For the developmentally young pupil, partly covering the object destroys its permanence: he does not reach when the object is partly hidden. In other words he needs to see the whole object to be able to recognise it.

One screen: object seen hidden. The object is shown to the pupil. With him watching it is hidden by a screen. He is allowed to get the object straight away. To pass the pupil must get the object. If he does he shows object permanence. He shows he knows that it is still there even though he cannot see it directly.

Two screens: object seen hidden. The object is put behind one of two screens, whilst the pupil is watching. He is then immediately allowed to get the object. In this and all later items we are dealing with the pupil who has the notion of permanence. We are testing how well developed it is. In order to do this we need to give him several trials, at least five or six, otherwise he may be right by chance.

Three screens: object seen hidden. As the previous item but there are three screens to distract the pupil.

- *One screen: object seen hidden: delay.*
- *Two screens: object seen hidden: delay.*
- *Three screens: object seen hidden: delay.*

In the previous items the pupil was allowed to get the object as soon as he saw it hidden. Here he is made to wait for ten seconds before letting him get the object. This tests the development of his short-term memory – his ability to retain knowledge of the position of an object over a short period of time. The pupil should, if possible, not be distracted too much during the delay. If he is, this will interfere with his ability to recall where the object was hidden.

Two screens: search.
Three screens: search.

The pupil is shown the object. It is then hidden behind a screen without him being allowed to see which one. The pupil is shown the object in the adult's hand and then the empty hand when the object is hidden. The pupil searches for and finds the object.

Three screens: search: object removed. The object is shown to the pupil. The adult then pretends to put it behind one of the three screens but instead keeps it in his hand. To pass, the pupil should search behind the screens and *then* go to the adult's hand. If he does, this shows a high level of development of the concept of object permanence.

Two screens: search: delay.

Three screens: search delay.

Three screens: search: object removed: delay.

These items test the pupil's ability to search after a delay of ten seconds. Otherwise they are identical to the previous three. Again do not distract the pupil in the delay interval. This will interfere with his memory where the object is hidden.

Finally, on the left of the central stem is an item which may be observed in play.

Hides and finds an object in play. The pupil puts objects in boxes and then takes them out again in the free play context.

It is possible that a pupil may show a sense of object permanence with some objects but not with others. This suggests the need to plan for generalisation to a range of familiar objects and people. Also, a pupil may show awareness of object permanence but not do well under delay conditions.

References

Kiernan, C. (1981) *Analysis of Programmes for Teaching* Basingstoke: Globe Education.

Ware, J., Jones, W., Martin, P., Alton, L. and Loftus, P. (2006) *Assessment materials for learners with profound learning difficulties and additional disabilities*. Produced by the Qualifications and Curriculum Group, Department for Education, Lifelong Learning and Skills, Castle Buildings, Womanby Street, Cardiff CF10 1SX.

Also visit www.wales.gov.uk/educationandskills