Developmental psychology: research methods



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Outline and evaluate the research methods employed by developmental psychologists.

Developmental psychology is defined by Muir & Slater(2003) as the discipline that attempts to describe and explain the changes that occur over time in thoughts, behavior, reasoning and functioning of an individual due to biological, individual and environmental influences. Any developmental psychologist, in its way to try to describe and explain the changes in an individual over time, need to find out what research design combined with research method will be best to gather information to be able to effectively carry its research. In the following paragraphs I will start by explaining the different research methods that are currently used by developmental psychologist. Lastly I will take some question asked by some psychologist from past studies that have been made and try to evaluate the research methods used in it.

Research methods can be broken into two parts: qualitative research method and quantitative research method. The distinction between those two types of research methodologies is that qualitative methods are essentially used for exploratory researches, using unstructured or semi-structured techniques such as naturalistic observation and clinical interviews. Exploratory research, defined by Wikipedia is, " research conducted for a problem that has not been clearly defined."

The quantitative methods are used to quantify the gathered information by generating numeral data so that the data can be statistically used for description and interpretation of information from a large population.

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Structured observation, structured interviews and tests are some examples of quantitative research methods.

As said in the preceding paragraphs, there are different types of research methods. Let us now outline and evaluate the different research methods by using past psychological studies so that we can see those research methods in a real context.

Descriptive Methods

It is in the human nature to observe others and to draw conclusion about their behaviour. We have to admit that we often judge people by their body language. In fact, scientist like psychologist also draw conclusion from people behaviours by observing them. There is a lot to learn just by observing people. The difference between a simple individual's observation of an event and the observation of a psychologist is that, the scientific observation is done under precisely defined conditions, it is done systematically and objectively. In addition, the event they are observing is carefully recorded.

As it is very difficult to study all behaviours and large population at a time, a representative sample of behaviour should be chosen accordingly to the study they are carrying. The sample should be as good as possible for the external validity of the study. External validity means the extent to which the findings from the observations can be generalized. Other than a good representative sample, psychologist have to choose a good time sampling as it enable psychologist to be exposed to the behaviour of interest at different period of the day. For instance, while observing a group of workers to assess their stress level (in work place), they should be observed for the whole day in order to generalize their findings. They cannot be observed only in the morning, where they are still fresh. Instead, they should be observed at different periods of the day or of the week, where under pressure of work, they express different behaviours. Another important factor to make a good observation is situation sampling. Situation sampling is choosing another sample, in another place and under different conditions and circumstances. Situation sampling enhances the external validity of the research findings.

There are two distinct types of observation. One is naturalistic or direct observation. It can be both qualitative and quantitative research method. In this type of observation, the researcher is on field, observes and records (written) its subjects in their natural setting. The strength of this method is that, when observing on field the researcher can see the everyday behavior that the subjects expresses. The subject's behaviours are not biased by the fact that they are being observed by the researcher because they do not know that they are being observed. The drawback is that the researcher is not in control of the situation, therefore he may fail to see the behaviour he is interested in. Also naturalistic observation is often time consuming. Example of naturalistic observation are work of (Farver & Branstetter, 1994) in which they observed preschooler prosocial response to their peers' distress. Another example is the study of (Matsumoto & Willingham, 2006) where the observed athletes in their natural setting of an olympic judo competition.

The second type of observation also can be both quantitative and qualitative research method. It is the structured observation. This kind of observation is https://assignbuster.com/developmental-psychology-research-methods/

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done in laboratory setting, where the researcher reproduce as much as possible real life setting in order to facilitate the occurrence of the behaviour of interest. The laboratory is also set in a way in which every participants can equally display this desired behaviour. The advantages of this research method is that the experimenter can control the laboratory experiment to get the desirable behaviour from the subjects. The drawback is that, very often the subjects will show an admirable and unnatural behavior to impress the researcher because they know that they are being studied. Garner (2003) set a laboratory observation to study the emotional reactions, to harm that two-year-old children thought they had caused.

Self-Reports

There are three common types of self-report procedures that developmental researcher uses to ask research participants to give information on their perception, thought, abilities, feeling, attitudes and past experiences. These types of self-report methods can be relatively unstructured interviews such as clinical interviews to highly structured interviews and questionnaires.

Clinical interview is a type of self-report method. The researcher, which is also the interviewer and the research participant engage in a conversation for a given period of time where the participant give his point of view of the subject in discussion. The advantages of this method is that the researcher can see the way the participant expresses its thought in its everyday life and also a lot of information can be gathered in a session. The disadvantages is that the participant can distort the way the use to think just to please the interviewer. Also when participants are asked questions about past events in their life, they do not remember things. In addition, as the clinical interview

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is based on conversation, one of the major problem that occurs is the fact that very often the participants has difficulty to put their thoughts into word. An example of clinical interview is the interview of Piaget to a 5-year-old child about dreams. (Piaget, 192611930, pp. 97-98)

Structured interview can be both qualitative and quantitative research method in which each and every participants are ask the same set of question. It allows psychologist to gain time during the session as the questions are already prepared in advance. In this methods the psychologist has to prepare an interview schedule and has to stick to this schedule even if the participant is deviating from the focus of the interview. The questions set in the structured interview can be either open-ended or close-ended. The advantage is that this method is not time consuming as the questions are already pre-set but its drawback is that the answers that will result from the participants may still be affected by miscommunication of thought. Structured interview does not provide information in detail as clinical interview does.

Questionnaires is a research method where a series of questions are asked for the purpose of obtaining information from respondent. It is considered as a written interview. Again, in this type of self-report interview the questions is set the same way for each participants/respondent. The outcome of this type of research may be very useful in statistical comparison. Questionnaire can be used for large populations at low cost and sometime this method can be quick if the questions asked are close ended. The limitations of this method is that it show little details about the respondents. Also, respondents may not be true in the expression of the feelings and thoughts even though questionnaires are confidential.

Clinical or Case Study Method

Case study method can provide a full range information on a subject. It is often used to study specific and interesting rare phenomena such as the case of Henry Gustav Molaison (Wikipedia 2015) who was an American memory disorder patient. This method analyses every event in the life the subject so as to give cues about how and why a subject is behaving like it is.

Do women have better memories than men?

Research suggest that women are better than men when there is a verbal material to remember. For example a list of words. Galea and Kimura (1993) did a laboratory experiment to test the hypothesis that woman have better memory than men. They tried to make an experiment to find if women were also better than men for remembering visual material. They showed the participants, women and men a series of simple and familiar images such as car, table and pen to remember. After that they had to recognise the remembered images in a second series of images. After the experiment, the results were in the advantage of the women. Indeed women remembered more images than men. But is this result true? It is not simple as that to interpret the results directly as they did. It is possible that the women encoded the simple images into simple words so that they were more likely to remember after. This experiment is not valid if the women stored the images as words. The experiment does not show that women are better than men in memorising simple images. Therefore we conclude that experiment should be done using specific methods.

Do children think an object that is out of sight is out of mind?

Jean Piaget is the pioneer of cognitive development in children. He started by observing children's behaviours and study their responses to his questions. He therefore, develop his theoretical framework to show that every children pass through a series of cognitive stages. In each different stages, a new cognitive ability were acquired. One important milestone in his theory is the object permanence. Object permanence means knowing that when an object is out of sight does not mean out of existence. In the first stage of his theory, the sensorimotor stage starts from birth to the age of two. This stage is said to be the object concept. When doing the search A not B error test, children age around five months cease to search for an interesting object when the experimenter hid it. Piaget concluded that for the children the object has ceased to exist. For older children aged around nine months, they did search for the hidden object but made errors which he called place error, or AB error. The experiment procedure was like that, there were two cloth in front of the children. Let us name it cloth A and cloth B. The interesting object was shown to the child, then place under cloth A. The child successfully retrieved it. Just after the child has retrieved the object, the experimenter places the object under under cloth A and the child was able to retrieve the object again. Now the experimenter places the object under cloth B and this time the child ceases to search for the object. Piaget says that the 5 months old children cease to search because they lack cognitive abilities and they believe that when object disappears, it is just vanished and non-existent anymore. For the nine months old children, Piaget would argue that they have a better understanding of the world but the subjective, egocentrism perspective of the child dominates. How far can we rely on these observation made by Piaget? What are possible alternative explanation of such behaviour? Do children of five months really think that object cease to exist when they are out of their sight?

A possible alternative explanation could be that five months children could not retrieve the object under the cloth because they lack motor skills to do it. They simply cannot hold themselves, they cannot bend forward and lift the cloth. If the reason that they do not search for the object when hidden is due to the lack of motor skills, then their cognition abilities has nothing to do with this experiment. Bower and Wishart (1982) did a laboratory experiment to test that 1 to 4 months children did not have object permanence. They tested if the heart rate of the children would rise when they saw an object disappear and then come back again. They hypotheses that if children age from 1 to 4 month did not have object permanence they would not react to the object when its reappears and their heart rate would not change. The result was that when the hidden object reappeared their heart rate did not rose. Therefore Bowen and Wishart concluded that the child had an expectation that the object was still there and did not disappeared. However, the moment when the object disappeared their heart rate rose showing their concern about the disappearance of the object. They have an understanding that the object is hidden by an obstacle (the cloth) but it is still there and eventually continues to exist.

We have seen from the examples that one methods cannot fully explain some behaviours. Sometimes researcher should use different methods to get out the best from research. Criticism and critical evaluation of their methods and results help in getting reliable and valid research pieces.

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To conclude, the different methods works for specific event and time. The developmental psychologist should be careful when choosing their research method and designs. The psychologist in their way to describe and explain behaviour should ask themselves a good research question to correctly theorise their ideas and also they should take care of all variables that can interfere with their results. After the handling of those enumerated conditions, then their research results can be accepted and generalized.

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