

SINIF GÖZLEM TEKNİKLERİ

CLASSROOM OBSERVATION TECHNIQUES

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ÖZET

Bu makalede, sosyal bilimler ve eğitim araştırmalarında bir veri toplama aracı olarak kullanılan gözlem tekniği incelenmiş ve tartışılmıştır. Önce gözlem tekniğinin kavram ve amaçları üzerinde durulmuş ve daha sonra sistematik ve sistematik olmayan iki gözlem türü açıklanmıştır. Son olarak sınıfta yapılan gözlem tekniği ile ilgili iki araştırma projesi özetlenmiştir. Bunlar ORACLE (Gözlemsel ve Sınıf Öğrenmesini Değerlendirme Projesi) ve PRINDEP (Temel İhtiyaçlar Bağımsız Değerlendirme Projesi) projeleridir.

ABSTRACT

In this article observation techniques as a data collecting tool used in social and educational research are examined and discussed. First the concepts and purposes of the observation technique are explained and later systematic and non-systematic observation techniques are described. Two research projects conducted in the classroom are then summarized. These are 'ORACLE' (Observational Research and Classroom Learning Evaluation Project), and 'PRINDEP' (Primary Needs Independent Evaluation Project).

INTRODUCTION

Educators dealing with educational research in all countries are constantly faced with the problem of choosing between different types of research instruments. Some educational researchers might avoid going into the classrooms, for classroom events are somewhat complex to observe and to explain. These educational researchers therefore try to understand educational processes while staying outside the classroom, by means of administering tests and questionnaires to samples of subjects. Such research is easy to carry out and the data is numerical, tidy and relatively easy to handle, but it is difficult to gather reliable data about what goes on inside classrooms with these methods.

This article will provide a very brief summary of two methods of observation: systematic and non-systematic observation. First, the methods underlying the purposes and concepts of observation will be discussed. Then some comments on the two published attempts to combine systematic and non-systematic observation techniques in studies of classrooms will be presented. These are 'ORACLE' (Observational Research and Classroom Learning Evaluation Project), and 'PRINDEP' (Primary Needs Independent Evaluation Project). Finally, a conclusion will be drawn.

THE CONCEPT AND THE PURPOSE OF OBSERVATION

Observation is a form of research tool which aims to gather data about subjects or occasions by observing them directly and listening to them. Its main and most important characteristic is to observe the target person, such as a teacher or a pupil, or both, in their natural atmosphere. This is very important, because it enables human behaviour to be analyzed objectively. It is true that human beings show bias in behaving in different ways while trying to collect data from those being observed, by using other research methods, such as interviews and questionnaires. Nevertheless the strongest aspect of observation is that we have a chance to collect much more unbiased data while observing subjects in their natural environment. All observations have a setting. They may be conducted in classrooms, school grounds, corridors, lunchrooms, students' homes, or staff rooms. The observer will go wherever it is necessary to obtain the data required for the study.

The purpose of the observation will guide the selection of the technique to be used. Observations may be used for research on effective teaching, to evaluate teachers' performance; a child's social, physical, or cognitive development; or to examine program implementation. Observation has a focus phenomenon

to be looked at or listened to. This might be a teacher, an aid, a child, materials, activities, or physical facilities. There are two principal types of observation methods, systematic and non-systematic observation.

SYSTEMATIC OBSERVATION

By systematic observation procedures, the observer deliberately refrains from participation in classroom activities, and analyses aspects of these activities through the use of a pre-determined set of categories or signs, (Hammersley, 1993:10). In other words, observers do all the preparation before they go to the place to make observations. For instance, they choose their target people, and determine how long the observation will take. They then put ticks on their form and evaluate the data on a computer. In systematic observation everything must be prepared in advance. This includes a detailed observation schedule containing activities, interactions and so on, to be recorded, time and target people.

Systematic observation is always non-participatory, because the observer cannot participate in an event while observing it. When he/she participates in the event, he/she cannot follow the schedule or record data. In non-participant observation, the researcher only has the role of researcher. He/she sits in to observe and watches what goes on around him/her according to his/her schedule and time limitation, and records the data. In other words, it can be said the observer is like a fly on the wall.

As Hargreaves (1972) points out, a general criticism of systematic observation is that no account is taken of the meanings which participants give to their interactions. Furthermore, systematic observation does not provide any evidence of the mental activities of participants, and also provides no direct evidence of the actions of participants which are not overt, nor of their perceptions of their own or others' actions. Additionally, the observer does not have access to the meanings attached to events by individual participants, although communication is dependent on the sharing of meanings (Hammersley, 1993:14).

NON-SYSTEMATIC OBSERVATION

In this method, the researchers do not start with preconceived ideas about precisely what they want to observe. They have no checklist or charts. They observe events, situations, behaviour and then write up all their observations immediately afterwards. They cannot do their job as a teacher and at the same time carry around

checklists and charts. (Bell, 1993: 110). Also, the researcher does not have any preparation before the observation and he/she does not know his/her target person or event. They just watch what interests them and attracts their attention. Non-participant observation can be divided according to the researcher's role as participant or non-participant.

PARTICIPANT OBSERVATION

Lacey (1976) defines participant observation as "the transfer of the whole person into an imaginative and emotional experience in which the field worker learned to live in and understand the new world" (Bell, 1993: 110).

In this kind of non-systematic observation the participant observer participates in the events and lives them, in order to understand the situation and the feelings of the targets very well, and for this reason it is also very important to observe them in their natural environment. As Woods puts it, it is like riding a bicycle: however much theoretical preparation you do there is no real substitute for actually getting on and doing it (Woods 1986:33). It can be said that participant observation is always non-systematic, because if the researcher participates in the situation, he cannot record his impressions.

According to Bailey (1978) there are some advantages of the participant observation approach (Cohen and Manion, 1994: 110). They are as follows:

First, observation studies are superior to experiments and surveys when data is being collected on non-verbal behaviour. Secondly, in observation studies, investigators are able to discern ongoing behaviour as it occurs and are able to make appropriate notes about its salient features. Thirdly, because participant observations take place over an extended period of time, researchers can develop more intimate and informal relationships with the subjects they are observing, generally in more natural environments than those in which experiments and surveys are conducted. Lastly, case study observations are less reactive than other types of data gathering methods. For example, in laboratory-based experiments and in surveys that depend upon verbal responses to structured questions, bias can be introduced in the very data that researchers are attempting to study.

On the other hand, participant observation studies are not without their critics. The accounts that typically emerge from participant observations are often described as subjective, biased, impressionistic, idiosyncratic and

lacking in the precise quantifiable measures that are the hallmark of survey research and experimentation (Cohen and Manion, 1994: 110).

NON - PARTICIPANT OBSERVATION

Fraenkel and Wallen (1996: 586) define non-systematic observation as observation in which the observer is not directly involved in the situation to be observed. As mentioned before in the systematic observation section, the researcher has only the role of researcher. The only difference between them is the following procedure. Firstly, the observer goes there to observe any events which interest him. Secondly he may record the data. Thirdly, he divides and analyses the information and finally, he evaluates it as qualitative data. It does not follow any specific procedure.

In both kinds of non-systematic observation, observers do not do any preparation before observation takes place. The observer does not know his target, he can change his interest depending on the situation in the classroom, for example if he finds more interesting things he can concentrate on these things immediately.

In this part of the article, we dwell on two published attempts to combine systematic and non-systematic observation techniques in studies of classrooms. They are 'ORACLE' (Observational Research and Classroom Learning Evaluation Project), and 'PRINDEP' (Primary Needs Independent Evaluation Project).

ORACLE

The ORACLE project is a five-year study, which was funded by the Social Science Research Council, and conducted by the University of Leicester. It was carried out between 1975 and 1980. The main aim of ORACLE was to describe and analyse pupil and teacher activities and interactions in the classroom and the effect of these on their school achievements. The project involved three Local Authority area schools and 60 sample classrooms.

According to Gallon (1983) the research includes four projects. These are:

1) The process-product study: its objective was to investigate the relative effectiveness of different teaching styles and their variability in relation to different types of pupils.

2) The consistency studies: the object was to investigate the consistency of pupil behaviour with different groups of pupils in the second year of the observational study.

3) Teachers' objectives in relation to pupils personal-social behaviour: it involved a study of teachers' objectives concerning social and personal behaviour of primary school pupils.

4) Transfer studies: in this project transfer from primary to middle and secondary schools was studied.

The ORACLE project mainly used the systematic observation technique and two instruments, being a they are; 'Pupil Record' and a 'Teacher Record'. In the 'pupil record' a pupils' basic activity is coded according to one of a set of fourteen mutually exclusive categories (Creole, 1986: 30-31). These include:

- * directly engaged on a curriculum task,
- * engaged on routine activities supporting a curriculum task,
- * disrupting another child's work.

Three variables (activity, mobility, in out of base) are coded on the Pupil Record each time a child is observed. In addition to these, the pupil-teacher and pupil-pupil interaction are coded on it.

Like the pupil record, the teacher record is coded at twenty-five second intervals, which include different kinds of questions and statements, silent marking, reading a story and the like. This recording procedure makes it possible to measure how much time the teacher spends in interaction with the class, how much of this is the whole class, how much time is spent questioning pupils, and how much time is spent making statements.

The ORACLE researchers focused in each classroom on the behaviours of eight target pupils (equal numbers of boys and girls) and the teacher who were chosen for systematic observation. They concentrated on the teacher for just about twenty minutes and on each target pupil for approximately five minutes per hour, and coded their observations on a preprepared schedule. Each class was visited for six teaching sessions (normally of one hour each) in each term of the year, making a total of eighteen sessions per year.

During the transfer studies period, the other kind of observational technique which is known as non-systematic (participant) observation was used (Gallon and Wilcox, 1983: 97). The non-systematic observation technique has been used to develop a

detailed analysis of the main features of the context of schooling in the transfer schools within which the pupils operate. The data was collected from six schools, especially during the first month of the first term when the target pupils arrived at the schools. For non-systematic observation two classes were chosen in each transfer school. In addition, systematic observation was utilised regularly throughout the whole of the first year to observe target pupils and their teachers in the transfer school situation.

Unlike a systematic observer who adopts the role of a "fly on a wall", a participant observer will take as active a part as possible in the classroom in order to try to understand what it is like to be part of this process (Gallon and Wilcox, 1983: 17, 98).

Participant observation was used for providing qualitative descriptions of the experiences of different pupils after transfer to different types of school (Gallon and Willcocks, 1983: 21).

There were three good reasons for combining participant and systematic observation. First, it offered an opportunity to combine ethnographic research methods with data from the Teacher and Pupil Records to discover how far both sets of findings were compatible. Second, it was felt that the initial encounters between teachers and new pupils were peculiarly susceptible to ethnographic observation (Ball, 1980). Third, unlike many other participant observation studies a team effort in ethnographic research, where different observers studied the same classes, could be mounted, and this was thought likely to produce some interesting methodological issues (Gallon and Wilcox, 1983: 98).

The data was collected the observers' notes and diaries by Delmont, who analysed them and wrote up the material. She read them several times, indexing them, to locate examples of significant events, and then she discussed the themes which arose with the rest of the research team. For the quantitative data, the pupil and teacher record and the test results were evaluated. The qualitative data presented in the ORACLE matched the pupils' own perspectives in which they talked and wrote about their hopes and fears in connection with changing schools before the transfer. These were: the architecture of the new building ('getting lost'), the new subjects, the new teachers and new friends (Gallon and Willcocks, 1983: 100-101).

PRINDEP

The PRINDEP (The Primary Needs Independent Evaluation Project), was directed by Professor Robin

Alexander of Leeds University, and funded by Leeds City Council. This project was commissioned to evaluate the city's four-year project for injecting cash and ideas into primary schools. The report deals with much more, focusing on a number of issues central to the current educational debate on primary school practice, including inner city education, the roles of the LEA (Leeds Education Authority) and of teachers, curriculum quality, reading standards, teaching methods, staffing and teacher training. The research team visited 90 schools and gathered information from all of Leeds' 230 primary schools (Hopkins, 1991: 5).

The research team's aim was to look at practice in each of sixty (about a quarter) of the city's primary schools. According to Alexander Robin, the study concentrated on three levels. Level One was to involve a single classroom visit and interviews, Level Two a visit, one lesson observation and two interviews, and Level Three an intensive program of interviews and systematic observation of teachers and pupils at work over a two-week period (Alexander, 1995: 45-46).

In Level One and Two the teachers were chosen by the research team. In Level Two the teachers were observed in activity and asked to talk about their preferred classroom procedures and the reasons behind them. The observations were used to gather this data. (Alexander, 1995:67). In addition, in this level five case studies about teachers and observation techniques were included and used as a main research technique.

Particularly in Level Three, a mixture of quantitative and qualitative methods were used to explore how lessons are structured and sequenced, the learning tasks pupils are given, how they respond to them, how teachers and pupils spend their time and the character of that all important feature of classroom life, talk. It may be said that in this level participant observation was used to collect qualitative data.

Six pupils were selected from each class for systematic observation. During each one-hour observation session, the target pupils were observed one at a time for ten minutes each. The order in which they were observed was decided in advance. At the same time when the pupil observations took place, the other observer focused on the teachers, who wore a radio microphone to record the data for qualitative analysis later, and also combined schedules and field notes. The behaviour of the target pupils and the teachers were coded on the pupil and teacher observation schedule for quantitative analysis on the computer. According to Alexander and Wilcox (1992).

"This procedure offers two main advantages over non-systematic observation on its own. Instead of general

impressions, it gives precise details of the balance of different kinds of behaviour. In addition, though it is selective in the items the researchers choose to include or exclude, in operation it is relatively impartial: the decision about what will be observed is made in advance, and the observer's attention is not constantly diverted towards events and situations which might in other circumstances prove irresistibly interesting."

By combining quantitative and qualitative analyses, the research team examined the following (Alexander and Willcocks, 1992: 104).

Quantitative analysis:

- * the learning tasks teachers set,
- * pupils' behavioural responses to these tasks,
- * the organisational settings,
- * the structure and sequence of individual teaching sessions,
- * the main kinds of teacher pupil interaction and the balance of these in different settings,
- * the influence of pupil gender and ability,
- * time spent on different aspects of the curriculum and the constituent generic activities of the curriculum,
- * the relationship between curriculum and pupil task behaviour.

Qualitative analysis:

- * the general features of teacher and pupil talk,
- * the character of teachers' questions,
- * verbal devices for achieving balance between pre-existing pupil skills and learning challenge,
- * the teacher's approach to providing motivation and choice,
- * the use of praise,

- * pupil responses and how teachers handled them,
- * dealing with interruptions,
- * barriers to communication,
- * the sharing and imparting of knowledge.

CONCLUSION

Observation is a prestigious research technique for educational researchers to understand what is taking place in the classroom. The advantages of systematic observation can be summarised as follows: it is easy to apply and it is not time consuming and, in addition to this, it is easy to evaluate data on the computer. The only disadvantage is that it is difficult to search deeper for the main data the researchers are looking for. The researchers face too many difficulties when attempting to gain thorough information. As a result of this, they need to use a participant observation technique to gather the data that they could not reach.

In the ORACLE and PRINDEP research projects, the researchers used two observational instruments which are Pupil Record and Teacher Record. As explained in ORACLE and PRINDEP, the researchers combined systematic observation and non-systematic observation techniques when they needed to complete their deficiency about the data. The main reason for following such a method was that they really needed to understand the interactions between teacher-pupil and pupil-pupil to see the hidden parts of these interactions. Taking all this into consideration we can conclude that both systematic and non-systematic observations fill in the gaps of one another in the way the research topics require. It is almost improbable to separate one technique from the another. Finally, it can be said that where systematic observation finishes non-systematic observation starts.

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