Chapter 2
Methodology

This chapter is divided into two parts. Part A describes the methodological elements of the research. First, it presents the basic components of the method, that is, the tools used—observations, interviews, and collection of documents, which made it possible to study the language and discourse of the interdisciplinary team. Then the focus shifts to the actual implementation of these tools during the research; specifically, the procedures employed for data collection and data analysis. The next section presents and justifies the method of qualitative research undertaken in this study: the rationale for choosing the ethnographic and case study approach for the purpose of interpreting and analyzing the language and discourse that characterize an interdisciplinary team culture. The methodological–ethical principles underlying the study are addressed, and their limiting effects on the scope of the study are reviewed. Finally, there is a critical discussion of the methodology utilized, the methodological–ethnographic problems encountered in the course of the research, as well as the criteria used to establish validity and reliability.

Part B provides a closer look at the structural components of this particular study. First, the study population and the school investigated are described. In order to clarify how the findings were derived from the data, the process of data analysis is explained in detail. The levels and units employed in the interpretive analysis in this study, "key words", "keywords and metaphors", and "discourse events" are explained. Then, the focus shifts to a review of the models that were adopted or created within the framework of the study to facilitate the understanding and analysis of the data. These are presented in relation to the following topics: the interdisciplinary team members' perceptions of the pupils; their perceptions of their roles as professionals in the school; and the language they use. The language is examined in terms of two major constructs: key words and metaphors used when speaking about the pupils and about the teamwork, and discourse events that occurred in the interdisciplinary and administrative teams' work. This type of analysis relies on the theory of family therapy, specifically on Minuchin's (1982) approach to the analysis

of findings. The last part of this chapter presents the rationale behind the choice of Goffman's (1959) dramaturgical approach. This theory proved extremely useful for understanding what was happening in the field and for the organization and analysis of the findings. In summary, this part shows how the findings were derived from the data collected in the field; thus, it describes the methods used to achieve the goals of the study.

2.1 Part A: The Methodological Basis of the Method Chosen

2.1.1 The Data Collection Tools

The discourse that takes place in the work of an interdisciplinary team creates a rich web of social processes and a complex framework of human learning. In an attempt to portray, understand, and analyze this framework, several research tools were used, the most important of which was observation, supplemented by interviews, intended to expose the professionals' thoughts and perceptions regarding specific topics, such as role perception. In addition, documents were collected, facilitating the validation and/or deeper understanding of the topic studied.

2.1.1.1 Observation

Anderson and Arsenault (1998) maintain that observational data bring to the analysis and interpretation of a setting a type of information which cannot be garnered any other way. They mention three possible types of observation: complete observation, participant observation, and participation. The first option was the one chosen for the current study. It enabled the researcher to follow the research process in real time, with minimal interference in the natural situation; to be both "inside" and "outside", while preserving a balance between participation and observation and refraining from active participation in the events (Sabar Ben-Yehoshua 1999; Spradley 1980). Observation enables the researcher to study closely the behaviors of the subjects as they occur, revealing the general and particular elements in the researched situations. Thus, the researcher can piece together the information obtained through these observations, to create a more complete picture, to interpret the overt and covert phenomena precisely as they occurred, and to review the findings again later from several different perspectives (Anderson and Arsenault 1998).

For the purpose of this study, both formal and informal observations were carried out. They all focused on the same interdisciplinary team members, functioning in different situations, such as in meetings of the administrative or the senior level team. The observations were documented in full in writing by the researcher. The record of the meetings included the participants (with a map of the seating), the subject under discussion, and all that was said. In addition, non-verbal behaviors were reported separately.

Altogether 127 observation records were written, documenting a whole year of the interdisciplinary team's work at the school. Throughout the period of the research, the researcher spent four days a week at the school, observing the discourse of the interdisciplinary teams during both formal and informal meetings. The formal meetings, which took place every week, lasted 2–3 h:

on Tuesdays, Individualized Education Program (IEP) meetings of the members of the interdisciplinary team working with the junior classes—about 20 participants;
on Thursdays, IEP meetings of the members of the interdisciplinary team working with the senior classes—about 20 participants;
on Tuesday evenings and Wednesday midday, meetings of the administrative team—usually about eight participants.

The following monthly meetings, which lasted 2–3 h, were also observed:

an in-school in-service course, which took place on Tuesday evenings after the meetings of the administrative team—with about 35 participants;
meetings of the long school day (LSD) team—about 25 participants;
meetings of the experts' team—the interdisciplinary team together with the hospital team—altogether 30–40 participants;
meetings of outside experts supervising the administrative team—8 participants.

In addition, special meetings for the planning of specific events were observed, as well as the pedagogic meetings, which are held at the beginning and end of the school year, for the purpose of constructing class curricula and planning the work of the admission committees (in special education schools, new pupils are admitted throughout the year).

In all, over the entire academic year, a total of 80 weekly meetings, 40 monthly meetings, and seven special meetings were recorded.

Observations of informal meetings were conducted in the schoolyard during recess periods, during school events, and in the team room. These observations lasted 5–20 min and the comments were written down immediately after the meetings.

Spending many days at the school each week over a long period enabled the researcher to overcome the limitations of observation, which are reviewed here.

*The difficulty of remaining objective while observing discourse

The problem depends on the amount of training and prior experience obtained by the researcher who records and reports the data (Anderson and Arsenault 1998). Goddard and Wierzbicka (1997) discussed the difficulty mentioned by Anderson and Arsenault. They explained that their greatest challenge as observers within the framework of qualitative research was to ensure that they observed all the details of the situation without permitting their own thoughts, judgments, feelings and attitudes to interfere and influence the observation.

Ely et al. (1991) have noted several problems related to qualitative research that is based mainly on observation. One of these is the need for intellectual flexibility, enabling the observer to disentangle the truth concealed within "many mazes", and also

to forgo previous assumptions and sometimes the knowledge already acquired, due to the fact that when researching a familiar culture, the findings are often unexpected. Another difficulty is the need to accept ambiguity and to learn to see situations through another person's eyes—the need for <u>empathic understanding</u>. They consider this the greatest challenge of qualitative research. Such understanding is needed to enable the researcher to comprehend and describe the experiences of the actors. It is also important for the researcher to achieve a balance between feelings of empathy toward the actors and the distancing required in order to preserve a <u>non-judgmental</u> attitude. This balance is essential to qualitative research and the researcher must learn to maintain it throughout the study. It is a matter of experience; hence, the extensive experience of the present researcher made such learning possible.

*Another limitation of data collection via observation lies in what is actually observed. Spradley (1980) speaks of the first stage as "the grand tour", i.e., a wide-ranging observation, and of the second stage as "the mini tour", i.e., focused observation, concentrating on recurring patterns and phenomena. According to Spradley, this means asking questions in the course of the process and developing tentative answers grounded in observed phenomena, and again asking questions, realizing that both the questions and the answers must be arrived at through the researched social situation.

*Yet another limitation is caused by the "Hawthorne effect", the possible influence that the observer and the research framework has on those being observed (Anderson and Arsenault 1998). How this was addressed will become clear in the section describing the research process (Sect. 1.2).

In order to acquire an in-depth understanding and to mirror the points of view of the people involved, interviews and talks were held with members of the interdisciplinary team.

2.1.1.2 Interviews

Semi-structured interviews were used in this research: their advantage is that the researcher can guide the discussion and focus on topics connected to the aims of the research, while allowing the interviewees a great deal of freedom in their reactions. Such interviews also make full use of the time available and significant points are dealt with. It is essentially a systematic interview that makes it possible to compare statements by various interviewees (Sabar Ben-Yehoshua 1999). The aim of the interviews was to reveal the thoughts, perceptions, and views of the professionals on the topics that were the focus of the research (Munby 1989; Sabar Ben-Yehoshua 1999). May (1998) emphasized two important aims that the semistructured interview addresses and which are particularly significant in ethnographic research:

1. It gives the interviewer more latitude to probe beyond the answers and thus enter into a dialogue with the interviewee;
2. It allows people to provide answers on their own terms—more so than the standardized interview permits; at the same time, it provides greater structure for comparability than does the focused interview.

The interview components were determined according to two sources: the research aim and the word and discourse patterns that emerged from the observations, facilitating the disclosure of meanings (Denzin and Lincoln 1998; Mertens and McLaughlin 1995; Sabar Ben-Yehoshua 1999).

To complete the picture and gain a better understanding of how the professionals perceive, interpret, and construct their daily life in the interdisciplinary team, 45 interviews were held, and representatives of each of the specialization fields were interviewed. The interviews lasted approximately 1.5 h, although some were longer. The ethnographic, semi-structured interviews were based on the previous stage of the research (described in the schema of development of the research process (see Fig. 2.1). Identical questions were prepared for all of the interviews, which then proceeded in the form of a conversation. All interviews were held in a quiet area in the school, during the Passover holidays of mainstream schools (the Law of Special Education, passed in Israel in 1988, requires that special schools teach during all the holidays and festivals). The atmosphere was relaxed and there was ample time for the interviews. The team cooperated willingly; some of them even returned to the researcher later that day or the next, and asked to make an additional point or clarify an aspect of their response. All of the interviews were recorded.

The semistructured interviews enabled an examination of personal motives, with attention to intimate details, which was facilitated by the conversational style and the mutual feeling of familiarity. The types of questions asked in the interviews included clarification of descriptions and concepts provided by the interviewees, elucidation of answers that required further discussion, and questions to clarify the interviewees' rationale and the extent of their knowledge.

In addition to the interviews, "corridor conversations" were held (Mumby and Clair 1997), i.e., talks with professionals in the schoolyard and in the team room during the breaks or when they had free periods. Most of these talks were initiated by them.

Informal data-collecting, "sidewalk activities" (Yin 1991), also took place upon entering or leaving the school at the end of the day, and in the evenings after meetings or school events, such as celebrations or VIP visits.

2.1.1.3 Collection of Documents

The collection of documents was an additional tool, intended to provide a deeper understanding of the research topic and to facilitate the validation of key words and discourse events existing in the field. This was relevant for the section on team members' perceptions of their pupils. Documents may provide interesting insights into the values of organizations and cultures; therefore, many and various documents were collected, of the following types:

- Monthly internal letters to the team, written by the school administration and the administrative team, intended solely for the members of the interdisciplinary team;
- Letters to parents, providing information about school activities, such as trips, special "theme days", and holidays;

- Forms prepared by the team for internal use, on subjects such as the perception of the role of the administrative team, details of a therapeutic treatment, academic achievements, and reports of physical or serious verbal violence;
- An annual bulletin, published in February by the school staff, which includes descriptions of the structure of the school, its distinguishing features, the study- and therapeutic programs, the definitions of functions, and reports on school events.

2.1.2 The Research Process

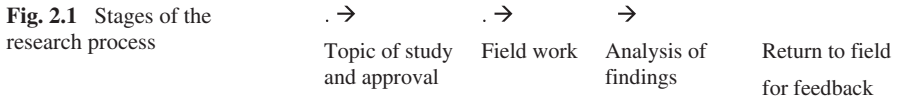A detailed description of the four distinct stages of the research process follows.

Stage1: Framing the research project. The research topic was proposed by principals who participated in a course led by the researcher at the Center for the Professional Development of Principals, while discussing the implementation of the Law of Special Education. The principals were seeking answers to certain questions, such as "how do I, as principal, lead an interdisciplinary team? Do I have the necessary skills? Is it possible to acquire skills that facilitate the work of interdisciplinary teams? How is the school team to be defined?" These were the questions that sparked the research study. The next step was to obtain the necessary authorizations.

In light of the sensitivity of the school population and the confidentiality of the personal information pertaining to the pupils, conducting a study at the school required permission from the Education Ministry's legal advisor, the district inspector, the school inspector, the school administration, and the members of the interdisciplinary team. This stage took about 6 months.

Stage 2: Data collection. The procedure at this stage followed the model that is presented and explained in detail in the next section (2.2.1).

The researcher's presence at the school had to be introduced in a gradual manner. After a brief introduction, the researcher explained the subject of the research and its methods to the interdisciplinary team members, but refrained from taking any notes at this point. During the first few weeks, every time a conflict surfaced, the team asked the researcher to leave the room. Only after the team had become accustomed to the researcher's presence did the note-taking begin. However, observations did not include the use of a voice recorder: the team members were very sensitive to this apparatus and, furthermore, the level of noise in the room would have made it impossible to record their words. As time passed and the team members realized that the researcher had not been deterred but was determined to remain with them, they found it easier to accept her presence in their midst. By the end of the observation period, all of the team members felt free to speak about any topic in the researcher's presence.

It was important that a sense of trust be established during this stage between the researcher and the research subjects—members of the interdisciplinary team. This took a relatively short time: in about 2 months, the researcher's presence was

Fig. 2.1 Stages of the research process

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Topic of study   Field work   Analysis of   Return to field
and approval   findings   for feedback

openly accepted and she was treated warmly by the team members, who cooperated willingly throughout the school year. The fieldwork lasted one year.

Stage 3: Data analysis. This stage comprised the review, validation, and interpretation of the data. The methods are described in detail in the section on the process of data collection and analysis, which follows.

Stage 4: Feedback. This stage entailed a return to the field (in the course of the data analysis and toward the end of the data analysis), in order to present the findings to the interdisciplinary team. In this study, feedback was offered both as a courtesy and as a means for validating the findings (see discussion below on validity, Sect. 2.1.7.2). The research procedure can be summed up as shown in Fig. 2.1.
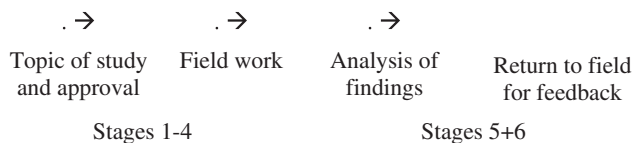
2.1.3 The Data Collection Process

The process of data collection and analysis constitutes the main component of a research process. An explanation and justification of the procedures undertaken in the current study are presented here.

Stage 1: A comprehensive overview. Spradley (1980) referred to this stage as "the grand tour", a metaphor which is also suitable for describing the process introduced by Lincoln and and Guba (1985). First, the researcher must accept the idea that in approaching the research, one must assume that s/he knows nothing.

Stages 2–4: Refocusing. Spradley (1980) calls this "the mini tour". This stage of the research includes repeated observations focused on words and discourse events and the phenomena they reveal; this includes the gathering of additional relevant materials, such as school documents, and conducting the interviews with members of the interdisciplinary team. This process gradually defines the focus of the research and homes in on major themes; this is achieved by posing questions, developing tentative answers, and again asking questions, realizing that both the questions and the answers must emerge from the social situation under investigation. This cyclic process, this to-and-fro dynamic, is at the very heart of qualitative research (Spradley 1980).

Stage 5:First-order knowledge. An effort was made to describe the phenomenological experience of the subjects with empathy and understanding, while presenting the evidence objectively and organizing the collected ethnographic material thematically. An in-depth treatment of the data was attempted, in line with the significance of the situation as perceived by the subjects, and relating to various relevant theories. Thus, the first level of knowledge was attained at this stage of the research; it is reviewed in greater depth in the first part of each of the "findings chapters" (Part A in Chaps. 3–6).

Research procedure

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Topic of study and approval	Field work	Analysis of findings	Return to field for feedback
	Stages 1-4		Stages 5+6

Data collection and analysis

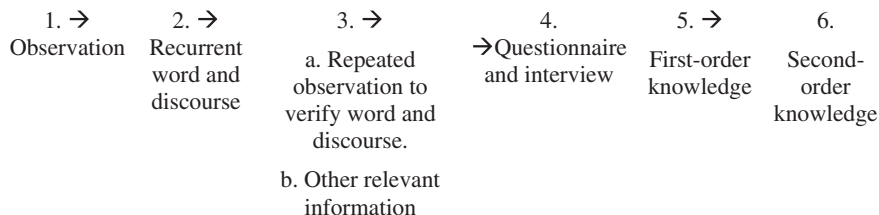| 1. →	2. →	3. →	4.	5. →	6.
Observation	Recurrent word and discourse	a. Repeated observation to verify word and discourse.	→Questionnaire and interview	First-order knowledge	Second-order knowledge
		b. Other relevant information			

Fig. 2.2 The link between the research procedure and data collection

Stage 6: Second-order knowledge. This stage comprised a critical analysis of the key words and discourse events identified at the first level of knowledge, leading to the conceptualization of the major key words and discourse events, with linkage to relevant theories from various spheres of knowledge. A deeper analysis of the major key words and discourse events and their significance for the members of the interdisciplinary team made it possible to construct an interpretive hypothesis concerning the types of discourse used by the subjects. This hypothesis aimed to formulate a conception that reflects reality. The analysis of second-level knowledge is presented in greater depth in the second part of each of the "findings chapters" (Part B in Chaps. 3–6).

The following diagram (Fig. 2.2) outlines the connection between the research process and the collection of data.

2.1.4   The Rationale

2.1.4.1   Rationale for Choosing the Ethnographic Approach

Ethnographic research entails a comprehensive description of individuals or groups, delimited or defined in some way (Deshen 1997). The ethnographic researcher may focus on a relatively small number of people, seen as displaying various interests, attitudes, and types of behavior.

Research that focuses on an interdisciplinary team calls for a wide-ranging, comprehensive, and in-depth study. Thus, the ethnographic approach appeared to be appropriate for this purpose, while attention was to be paid to "obvious notions". Schutz (1971) emphasized that these are "notions" that have become

socially and culturally accepted features that are expressed and have significance only within the context of a specific culture. This study aimed to identify and focus on such notions, the meanings of which would be obvious only within the culture of the interdisciplinary team. An example of this type of notion were the words the team members use.

The distinctive character of ethnographic research lies in its focus on processes as seen from the point of view of those experiencing them. It facilitates the exposure of the essence of the process from a phenomenological point of view. It attempts to analyze social phenomena by studying the way in which the subjects (the actors) grasp and interpret what is expected of them (in this case, by their colleagues) and by the cultural system to which they belong (Schutz 1970; Spradley 1979). This study focused on the way in which this group of professionals grasp, sense, and interpret the cultural system they belong to as professionals and members of this interdisciplinary team.

Ethnographic methodology appeared most appropriate for this study for the following additional reason: this research focused on interactive systems and processes connected to patterns of behavior in psychologically dynamic situations. The examination of such patterns required an approach that would facilitate the study of the overt and covert aspects in the world of an interdisciplinary team. Employing an ethnographic approach would make it possible to gradually unravel the entangled coil of feelings, events, joys, and disappointments affecting the web of professional relationships. Similarly, ethnography provided a means for to analyzing routines, i.e., the daily rhythms of the interdisciplinary team.

This research framework also facilitated the elicitation of second-level knowledge. It derives the data from the context of events as they occur naturally; hence, the researcher is in fact analyzing the subjects' unconscious daily routine, while asking questions about the obvious. The researcher becomes closely acquainted with the way that the subjects interpret their own and others' (in this instance—their colleagues') behaviors and actions, since they do so in the researcher's presence. Silverman (1985) noted that the fabric of daily life of the social research field is revealed through perceptions and understandings that emerge from the deeper insights attainable using a holistic approach (Greene 1994; Stake 1978). Deshen (1997) mentioned that social studies often present "great theories", comprehensive, generalizing, positivistic, and functional attempts at a "social structuring of reality". However, theories, which are abstract and one-dimensional by nature, cannot relate to the details of experience and, hence, they are unable to provide convincing explanations of concrete cases. By contrast, ethnography probes into real—albeit delimited—components of life.

According to Atkinson and Hammersley (1998), ethnography usually refers to forms of social research characterized by a number of substantial features, found also in this study.

(a) A strong emphasis on exploring the nature of particular social phenomena—in this study it is the culture of an interdisciplinary team.
(b) A tendency to work primarily with unstructured data, that is, data that were not coded at the point of data collection in terms of a closed set of analytic categories.

In this study, all the data were derived from the field; the categorization took place at the stage of the analysis of the data, as explained in this chapter.

(c) An investigation of a small number of cases, perhaps just one case, in detail—in this casw the research of one interdisciplinary team, working in one special school.

(d) Analysis of data that involves explicit interpretation of the meaning and functions of human actions, the product of which mainly takes the form of verbal descriptions and explanations. This study goes beyond the scope of interpretation indicated by Atkinson and Hammersley (1998), by delving deeper and analyzing the particular language constructions, such as key words, metaphors, and discourse events.

(e) The aim of ethnographic research is to formulate "trustworthy ideas", which the actors recognize as pertinent and significant to their own experience. If indeed they find these trustworthy, the objective of the research is obtained and the actors can use these ideas to gain insight into, understand, and interpret their own attitudes and dynamics, the outcomes of which they then either accept and validate or reject and change (Eisner 1985).

2.1.4.2 Rationale for Choosing the Case Study Approach

The case study is frequently used in qualitative research. According to Stake (1995), when the aim is a better understanding of human experience, the case study is the appropriate method. Stake mentions that the most interesting cases in the spheres of education and social studies involve people acting in interactive organizational frameworks. In this study they are called "the actors".

The case studied can focus on one person, for instance a teacher, an educational framework such as a school, or any entity with limitations determined by time, place, and participants. In this study, the place is a special education school for children with mental health disabilities and the participants are the professionals, members of the interdisciplinary team. The time is the school year.

According to Bassey (1999), a case study is similar to an artist's creation: by means of one case, limited in time and defined by the existing conditions, it is possible to present the ongoing reality of daily life. In the current study, the goal was to depict the ongoing reality of the daily life of an interdisciplinary team at a special education school. In this context, the discourse that took place daily was the essential component examined.

The framework of the case study makes it possible to derive second-order knowledge, after first-order knowledge has been acquired in the field (Schultz 1970). In the framework of a case study, findings are derived from the natural context of events (Bassey 1999; Yin 1991). Stake (1995) added that the specific case under study is a "functioning thing". So too, in this research, the team is composed of people with various types of expertise, acting and functioning in a complex environment. It is an integrative system and it must be examined in an integrative way.

Why was the case of an interdisciplinary team chosen?

The first criterion for the choice of a case is to maximize what we can learn (Stake 1995). (The reasons for the choice of the particular school will be explained later in Sect. 2.2.1). The underlying assumption of the current study was that observation of the discourse of the interdisciplinary team in the school selected would provide informative and significant insights pertinent to any such team. An in-depth study of one discrete case can serve as a basis for further research; yet it can also have implications that are immediately applicable in the field.

Discussing the criteria for selecting a case to study, Bassey (1999) noted that one learns from a case which is of very special interest. The analysis should enable one to learn about the case in all of its complexity and discern its distinctive characteristics.

Another advantage of the case study method mentioned by Kenny and Rotkluschen (1984) is that it presents many different points of view and provides a comprehensive description, rich in detail. Such is the case in this research: different points of view are presented at meetings when a particular pupil is under discussion—the perspective of the teacher, that of the therapist, and that of the psychiatrist. Such a rich context also arouses conflicts. Bassey (1999) reinforces this point, by mentioning that a case study can also present conflicts between different points of view and then interpret them. Shaw (1978) maintains that a case study can provide new insights into the relationships and reveal variables involved in the phenomena studied. Bassey (1999), focusing on educational case studies, points out that the aim is to reveal or promote knowledge. The analysis and interpretation of the knowledge obtained leads to a deeper understanding of specific events and to theoretical insights. Shulman (1986), like Bassey, emphasizes that a case study is an appropriate framework for studying complex educational situations, when it is difficult to make use of controlled variables. The case study method is appropriate also for the aims described in this research design: the specific case may produce a practical model, as illustrated in Chap. 7. Bassey (1999) adds that the analysis of a case is a step on the way to action.

In addition to the methodological principles, the following ethical principles also provided guidelines for this research.

2.1.5 Ethical Considerations

The ethical aspects of research are particularly important when dealing with such a complex and sensitive research topic as the work of an interdisciplinary team at a special education school. Researchers in special education must follow appropriate ethical principles to ensure that the rights of human subjects are protected (Mertens and McLaughlin 1995). Burgess (1989) mentions several ethical dilemmas related to educational research, and these were the dilemmas that had to be confronted in this study.

(a) <u>Funding the research</u>—the sponsorship of research has been widely discussed in the literature. In this case, it was decided not to seek a sponsor, despite the high cost of the research, which was the result of the long time spent in the

field and the need to consult many experts in addition to the research supervisors. Additionally, the researcher's decision to neither seek nor accept offers for external funding was motivated by two ethical reasons. First, working without outside funding ensures that the research is not influenced in any way by extraneous considerations, but rather is conducted independently, and that the researcher is free to focus on any aspects observed. The second ethical consideration was the need to protect the confidentiality of all those involved, in other words, the researcher had to maintain complete control of the data (Murphy and Dingwall 2001, define this as not causing harm). It was necessary to ensure that the participants were not harmed in any way, since much of what was said during the observations or interviews was personal and revealing. The actors were speaking in a specific context and relating to a particular event; reported out of context, the meaning and significance of the words could be distorted. Moreover, the discussion often focused on the pupils, in this case, children with emotional difficulties and mental health problems; hence, it was essential to ensure that no harm could come either to them or to the professionals involved in their care. For these reasons, the following rules were adhered to throughout the course of the research.

1.   The name of the school was changed to "Migdalim School" (migdalim means towers in Hebrew).
2.   Throughout the study, the team members are identified by their functions at the school, not by their names.
3.   The pupils are identified by first name initials only.

(b) Another dilemma, mentioned extensively in the ethnographic literature, entails the <u>relationship between the researcher and the subjects</u>, that is, the actors studied. Problems of openness and confidentiality (Burgess 1989; Murphy and Dingwall 2001) must be taken into account and resolved when making decisions in the field.

However, establishing a trusting relationship is a gradual process that can only be accomplished one step at a time. Thus, for example, only at a later stage in the current study (once a sense of acceptance was established) did the researcher leave the notebooks in which the observations were documented open on the table in the team room. Team members who wished to examine them were told they were free to do so (this happened at the beginning), and any questions they asked the researcher were answered with a smile and some general remark about the documentation. At no time did the researcher discuss with team members anything that others had said: this was to ensure that the ethically important right to privacy would be respected. Murphy and Dingwall (2001) mention the actors' right to respect, and the importance of trust between the researcher and the subjects.

(c) <u>Permission given by the actors</u> is seen as a particularly important ethical aspect of research. Each person's consent to participate is mandatory. Permission was granted by the educational authorities, by the school, and by all of the participants, as explained in detail in the description of the first stage of the research process (Sect. 2.1.2).

(d)   The <u>publication of the data</u> is a key aspect from the ethical point of view.
      After completing the analysis of the findings, the researcher met with the
      interdisciplinary team several times, and presented the findings to them.
      At the last meeting, they granted the researcher permission to present the
      research in any forum and publish it in any professional periodical, stipulating
      strict adherence to the ethical rules mentioned herein.

In addition to the ethical dilemmas presented by Burgess (1989), Murphy and
Dingwall (2001) raise the issue of the study's "beneficial" effects. They main-
tain that when dealing with topics concerning people, researchers should pro-
duce something that is helpful to the actors and that can be implemented in the
field, rather than merely carrying out research for their own benefit. The beneficial
effects of the current study as a whole are addressed separately in Chap. 7, titled
Conclusions. In addition, during the ongoing observations conducted at the school
in the course of the current study, the researcher produced various useful tools,
such as a questionnaire for evaluating the work of school principals, a question-
naire for evaluating the team members, and guidelines for teacher–parent meet-
ings. These tools were not a part of the research; they were prepared upon the
team members' request. Although this activity was beyond the scope of the study,
constructing and presenting the tools to the team members had a beneficial effect
on the relationship between the researcher and the participants, leading to greater
openness. Commitment and adherence to the above-mentioned ethical principles
led to certain limitations in the scope of the research.

2.1.6 Limitations of the Research

The main limitation of the study was due to focusing on certain professional
groups within the interdisciplinary team: therapists, educators, and doctors (see
the explanation about the nature of ethnographic research and the choice of the
research population, Sect. 2.1.4). Focusing on this population did not enable the
researcher to deal with other professionals in the team who played an important
role in the daily life of the school, for example, members of the group in charge
of the long school day, specialist teachers, the school counselor, experts brought
in from outside, assistant teachers, or parents, all of whom constituted an essential
component in the daily language and dialogue that occurred among the teams.

2.1.7 Critical Discussion of the Research Method

The research was carried out as an ethnographic case study of the discourse in
an interdisciplinary team. Acquaintance with the culture presumably enables
the researcher to delve deeply into the research topic, given that the need for

preliminary work is obviated. Tasks such as learning a new language, becoming acquainted with the norms, and gradually coming to feel at ease in a new environment are unnecessary. Thus, a researcher who actually belongs to the culture where the research is conducted is thus able to understand the "language" spoken, the professional terminology and social jargon, the norms governing both formal and informal behavior, and the sensitive interpersonal elements typical of the relationships within the researched culture.

As regards the study described herein, the researcher was in fact a member of the culture being studied; this was likely to promote cooperation, yet it was also liable to interfere, since observations might be affected by the researcher's own point of view as a person involved in the system. It was important to suppress personal expression, disregard personal dilemmas, withhold judgment, and remain intellectually and emotionally uninvolved, so as to preserve total objectivity. Simmel (1950) and Bilu (1993) referred to the difficulty of being a stranger to the society under study as "structural estrangement", which prevents the stranger from penetrating into the group and mitigating the existing differences. Indeed, any time two or more people meet, there is tension between closeness and distance, and between belonging and separateness. The researcher, a special education teacher who taught a small class of children with emotional and behavioral disabilities in a mainstream school, was not a stranger to the world being studied; working in a familiar setting meant there were no problems interacting with the actors and, hence, no social-structural estrangement.

Schutz (1970) and Behar (1996) speak of *phenomenological estrangement*, a state in which a person is aware of being unable to understand the manner in which the surrounding culture is structured, and therefore cannot share in the participants' interpretation process. According to this approach, in order to understand the society from the point of view of those who belong, a person from the outside must become acquainted with the cultural structures obvious to those within, and suppress the structures that typify one's own world. In the context of the current study, the researcher's integration into the interdisciplinary team was expected to be smooth, since she was part of the same cultural environment.

However, according to Schutz (1970), there are the positive aspects to the "estrangement". Researchers who are unfamiliar with the scene are perceived as having a more objective attitude, and the participants are likely to speak more openly with them. However, in the situation described here, given the researcher's heightened awareness of the danger of compromising the objectivity of the study, she was doubly cautious not to misstep. Being a stranger in that particular school, yet at the same time an insider, made it possible to understand and elucidate the words and discourse derived from the observations, interviews, and documents, and to interpret their significance.

A researcher must be sensitive to intrapersonal processes, to become aware of any possible bias toward the researched phenomenon, and focus on the discourse that emerges naturally from the actors' words. In the course of the research, the researcher must maintain an ongoing inner dialogue between his or her own practical and theoretical knowledge and the patterns that are revealed through close

observation. Sometimes, additional theoretical knowledge must be harnessed to advance the process, and brought to bear on the existing practical knowledge. It is as though the researcher experiments with wearing different types of glasses when observing the scene, adapted to correspond to various needs. The researcher and the actors should be aware that qualitative research entails an interpretive process. The inner dialogue described above is actually a process of constantly reviewing the patterns derived from the data and collected through the researcher's perceptions, taking care to avoid over-interpretation, at one end of the spectrum, and preconceived notions about the data, at the other.

2.1.7.1 Ethnographic Methodological Problems to be Overcome Throughout the Research

1. The actors' reports were mainly formal, and in analyzing them, the problem that arose was how to distinguish between a description of an activity or event, and interpretations, explanations, and rationalizations provided by the actors. Eisner (1983) maintains that qualitative research is descriptive and interpretive, and the analysis it requires relies on findings derived from testimonies. All of the data, the actors' interpretations and explanations, as well as their actions and the events they experience, should be considered cues, leading the researcher to reveal the significance they embody. The status of the findings in qualitative research does not stem from their informative value, or from their potential to produce generalizations or abstractions, formulate rules, or construct theories. Their value lies in their latent significance, in the way that the information forges our knowledge and our view of the situation.
2. Another methodological problem arose regarding the way to present findings without distorting their significance. How can the researcher ensure that the reports about the actors actually reflect the actors' own understandings and feelings about the events? The problem was addressed through the use of two stages of analysis, corresponding to the distinction between first- and second-level knowledge, respectively (as presented in the description of the research process, in Sect. 2.1.2). To this end, the ethnographic method, which probes the actors' conceptions, thoughts, and images as reflected in their words and discourse, was particularly suitable for preserving the authenticity of the findings. The researcher listened to the story or, in Goffman's words, "watched the play" and analyzed it, exploring the story that the actors told. On other occasions, different research methods were used in addition to observations, such as interviews, collection of documents, corridor conversations, and sidewalk activities, in order to probe in greater depth the perceptions of a specific professional. The main purpose was to understand how different professionals perceived the same word or event, how the same word and discourse pattern were altered or appeared when reflected by different "mirrors".
3. The potential for generalization on the basis of a case study is considered very limited (Stake 1995). Nevertheless, Stake points out that certain activities,

problems, or reactions will recur frequently. In this study, these are key words and discourse events. According to Stake, they can provide practical generalizations, that is, create a model applicable to the culture investigated.

4. The main problem is to reveal the speaker's train of thought. The objective was to understand how each speaker defined and perceived a particular word or event; this would render a clear understanding of the nature of the discourse of the interdisciplinary team, and reveal what was taking place at the covert level, thus leading to the second-level analysis of the findings. The various tools employed (described above), made it possible to expose the speakers' thinking.

The reliability and validity of scientific research depends on the reliability of the findings. Certain generally accepted criteria must be considered. Owing to basic differences between quantitative and qualitative research, the significance of the validity and reliability for qualitative research in general and interpretive research in particular must be made clear. These will be discussed below.

2.1.7.2 Validity

According to Kirk and Miller (1986), in qualitative research, the question is not whether a tool used assesses with precision the phenomenon under study, but whether the researcher's findings actually reflect the reality accurately. This raises the question: which criteria can be appropriate for ascertaining the validity of the findings reported? Kirk and Miller discuss two dimensions of validity in qualitative research.

Theoretical validity—relates to the similarity, identified by the researchers, between their own findings and those expected on the basis of the theoretical background. This approach involves the risk of seeing what one wishes to see. Researchers seeking to attain theoretical validity of the data might force the theoretical conceptualization on the data, even to the point of dismissing the natural patterns emerging from the data. Therefore, it is desirable, as mentioned above, to disregard the linkage to theoretical frameworks until the data's intrinsic patterns have been revealed and the theory that emerges from them has been formulated. It is only then that comparisons between existing theoretical frameworks and the blueprint derived from the data can be made, as a way of validating the observations. This is the sequence that was followed in the current study.

Apparent validity relates to the extent to which the research explains the phenomenon in a way that satisfies those currently involved in the situation (it is also referred to as "simultaneous validity"). Is the explanation offered perceived as authentic and comprehensive by the members of the researched culture?

In the case of the current study, while analyzing the findings, i.e., toward the end of the fourth stage of analysis (see Sect. 2.1.2), the researcher returned to the field to present the findings to the members of the interdisciplinary team. This stage had a dual purpose. The main purpose was to ascertain the "beneficence" of the study's findings (Atkinson et al. 2001), i.e., ensure that the study could serve as an impetus

for discussion that would be perceived as beneficial to their work. At the same time, the feedback provided contributed also to the assessment of apparent validity.

This procedure also has its risks. For example, a proposed explanation might not be sufficiently comprehensive, due to an omission on the part of the researcher (an aspect that was overlooked and thus not included in the analysis). In such cases, actors rarely volunteer unsolicited information, or information solicited in an inappropriate way.

2.1.7.3 Reliability

Diachronic reliability, so desirable in quantitative research, is examined by way of the paradigm of repeated experiments. Being able to attain the same results in repeated experiments at different times shows that the findings have not been affected by the specific context from which they were derived. However, in qualitative study, this criterion cannot be employed to establish reliability, because it ignores the fact that in researching people, changes in the context naturally affect people's perceptions. Perceptions are dynamic and closely connected to the context in which they occur. Hence, Kirk and Miller (1986) proposed the concept of *synchronic reliability* as a criterion for the assessment of naturalistic research. In contrast to the diachronic reliability applied in quantitative studies, *synchronic* reliability is indicated by a basic similarity of findings derived from repeated examinations of the same phenomenon investigated at the time of the research.

It is noteworthy that despite all of the efforts at standardization, even repeated observations are generally not totally identical. For instance, during interviews with various people, even if identical questions are asked in the same order, the relationships created between the interviewer and the interviewee are likely to differ. Notwithstanding, if similar types of reactions are revealed—in this study, similar words, discourse events, and patterns, then synchronic reliability has been attained. This study found and analyzed similar recurring words and discourse patterns.

The next section describes the research field and presents models for analysis of words and discourse in the interdisciplinary team.

2.2 Part B: The Method Employed in the Analysis of the Language and Discourse of the Interdisciplinary Team

2.2.1 Description of the Research Setting

2.2.1.1 Migdalim School

The location of the school, its history, and organizational structure are not necessarily connected directly to the words and discourse of the interdisciplinary team. However, they constitute the context and affect the team members and, thus, also

the discourse itself. Information about the context will make it easier to understand the framework within which the professionals act.

The school is situated in the center of Israel, on the outskirts of a town: on one side of the school is a neighborhood of large houses, and on its other side a wooded area. It is thus located far from the center of the town, somewhat isolated from society. Very few people ever come to this part of the town. To get to the school, one must turn off the main road onto a dirt road, and park in a large unpaved parking lot. The entrance to the school is reached by a long paved path, with a lawn and a large schoolyard on one side, and on the other side flowerbeds and vegetable patches, cultivated by the pupils. The paved path leads to a row of buildings. From the outside, it looks like one long rectangular structure, but upon entering, one sees that it comprises several connected buildings. On one side there is a four-story building containing therapeutic treatment rooms; the whole of this area belongs to the paramedical team. In the center is the gym hall, also used for various events, for in-service courses, and sometimes for team meetings of the entire interdisciplinary team. The one-story building adjacent to the hall contains the team room, the principal's room, and the offices of the secretary and the administrative team. Opposite this complex is another long structure, comprising one-story buildings with classrooms.

The Migdalim School was once located in a psychiatric hospital in the town. The current school complex was built 12 years ago, following a decision to separate the school from the hospital. The first principal left the school after a period of seven years, to become a Ministry of Education inspector. The Ministry published a tender, and A. was chosen to run the school. A. had been a teacher and the vice-principal of a school for children with emotional difficulties, located in the adjacent town. She has an MA in educational counseling, a BA degree, and a teaching diploma. In addition, she had taken a course in management. She was the principal during the period of the research that is the focus of this manuscript.

The pupil population comprises children and adolescents, some of them with mental health disabilities. (This information comes from a school document, produced by the team for professionals and functionaries visiting the school.) The Ministry of Education defines the school population as having mental health disabilities. In accordance with the Law of Special Education (1988), the pupils remain at the school until the age of 21. (The junior level comprises pupils of ages 10–15, the senior level—ages 16–21). There is no need to provide more detailed information about the pupils, since they are not the focus of the study (see also the section on ethical aspects). The school serves the population of a very large area that extends from the north to the south of the country. The pupils are bussed to school in the morning and back home at the end of the school day.

The school day at Migdalim starts at 8 am and ends at 4 pm. The morning hours are devoted to study and to treatment. The pupils eat lunch at 1 pm in the gym hall, and from 2 pm, the framework is that of the long school day. During those 2 h, the pupils use computers, play educational games, sing in groups, play musical instruments, and have special "life skills" lessons. It is an enrichment program that emphasizes experiential learning. This study did not focus on the LSD team.

2.2.1.2 Reasons for Choosing the School

According to Stake (1995), the first criterion for the choice of the subject of research should be a case that offers a maximum potential for learning. This raised the question: which case could provide in-depth knowledge that could perhaps be generalizable?

Migdalim can teach us a great deal, since its staff includes the entire range of specializations found in Israel in interdisciplinary teams working in special education, i.e., experts in education, therapy, and psychiatric medicine (see detailed description of the research population). Secondly, the school has a good reputation and is highly regarded, both by those who work there and those in close contact with it, such as the school inspector, the municipal officials, and various professionals. Moreover, the school team has the reputation of being open-minded and professional, and its members are all top experts in their fields. A self-confident and receptive team enables the researcher to study both overt and covert phenomena related to its work.

Another advantage was the principal's willingness to participate in the research; in fact, she considered it valuable and believed it could make a unique contribution to the team, and to the school. It is important that the person at the head of the organization have such a positive view of the research, since the principal projects her attitude to the team.

2.2.1.3 The Research Population

The interdisciplinary team of the school comprises 65 members, divided according to their sphere of expertise in the following way:
The educational team
Ten homeroom teachers, ten assistant teachers, and two additional assistant teachers, each assigned to work with specific child. There is one subject teacher for each of the following subjects: handicrafts, physical education, agriculture, drawing, home economics, woodwork, and music.
The paramedical team
Therapists who work with art, movement, music, drawing, and puppet theater; a communication therapist; and an occupational therapist. All of these professionals will be referred to as *the therapists*.
The medical team
Two psychiatrists and one psychologist.
The administrative team
The principal and the vice-principal; the latter also coordinates the long school day and oversees the vacation team. The administrative team includes representatives from every field: the heads of the junior and senior departments and of the social education department, the heads of the rehabilitation and therapy departments, and a representative of the assistant teachers. In addition there are professionals who work at the school as needed: a counselor, a teacher guide, a learning environment instructor, the head of the computer department, and the head of the security office.

In ethnographic research, a researcher wishing to describe a given population does not presume to be able to get to know every individual. The ethnographer focuses on relatively few people, selected as representative and typical in various ways, and draws conclusions about the larger group, based on what can be deduced from the representative few. Therefore, the focus in this study was mainly on three groups, the educators, the therapists, and the medical staff, and their interactions within the interdisciplinary team.

The the reasons for selecting these three groups were as follows: the extent of their commitment to the work of the interdisciplinary team; the specific role of each group is clearly defined and obvious to the team; these groups are perceived as vying for a dominant, leadership status within the team.

2.2.2 Models for Data Analysis

Stake (1995) points out that interpretation is a major part of all research. Analyzing qualitative data is a systematic process that organizes the data into manageable units; combines and synthesizes ideas; develops constructs, themes, patterns or theories; and illuminates the important discoveries of the research. It is a monumental task that begins as soon as data are obtained.

2.2.2.1 Interpretive Analysis

Interpretive analysis can be carried out in various ways. Essentially, its aim is to elucidate and formulate interpretive principles as well as cognitive, emotional, and behavioral mechanisms, both overt and covert, existing—in this case—in the discourse of the interdisciplinary team. As these surface, they are interpreted and explained against the background of the specific culture (Geertz 1973).

Interpretive analysis moves between the following activities:

- Impressionistic interpretive processing, expressed most clearly in documentation of the observations. At this stage, the interpretation focuses on the main words and events, and it is inevitably affected by the researcher's subjective point of view. In this study, the interpretation is influenced by the extent of the researcher's sensitivity and ability to perceive overt and hidden processes that occur during the observed discourse.
- Quantitative analysis, in this case, this pertains to the counting of certain units, such as specific words, statements, topics, and discourse events that occur during the observations and interviews. This type of analysis is similar to scientific quantitative research and is also partially in line with interpretive analysis. In this study, an example of the combination of quantitative and interpretive analysis can be found in the need not only to note the frequency of key words used in the interdisciplinary team's discourse, but also to try to pinpoint the patterns recurring in that culture.

- Content analysis—a halfway process. The interpretation is carried out in two stages. First, the researcher analyzes the overt content of the data collected, formulates categories, chooses units of analysis, and places the ethnographic data in these categories—in this study, words, statements, ideas, explanations, thoughts, events, and discourse patterns. This procedure leads to certain conclusions at the first level of analysis. At this stage, the researcher relies on intuition and points to possible conclusions inferred from both overt and covert content. At the second stage, that of the second level of analysis, all of the main patterns that were found to be characteristic of the discourse in the subjects' sociocultural context are again analyzed. A researcher interpreting discourse units and discourse events should not only expose the text, but also clarify the processes underlying it, and interpret them in their sociocultural context. Accordingly, the following units of analysis were chosen.

2.2.2.2 Units of Analysis

Swanson (1990) proposes the use of flexible units of analysis, since they facilitate categorization. In this study, flexible units were used in most of the content analysis, for instance, the units "word", and "word and metaphor". In analyzing a discourse event, a flexible approach was adopted, with entire dialogues and events being used as units of analysis.

The hierarchy and analysis of units

Key word –> key word and metaphor –> dialogue –> discourse event

Level of the single key word—analysis aimed to identify the key words that recurred frequently in the professionals' discourse (based on the notebooks documenting the observations). Subsequently, the analysis was carried out within the general context of the professionals' definition and use of the key word.

Level of the single key word and/or single metaphor—the analysis was carried out in the same way as above.

Level of the dialogue—analysis of the main characteristic features of the dialogues, in their sociocultural context.

Level of the discourse event—comprehensive analysis of the discourse events in their sociocultural context.

The source for building a system of units and of data analysis was the researched phenomenon itself, from which the internal categories and units were derived (Donmoyer 1997; Sabar Ben-Yehoshua 1999).

2.2.2.3 Hierarchy of Contexts

Language, discourse, and key words can be described as pertaining to a nested hierarchy of contexts.

At the **Paradigm** level—the context is the overall subject on which the discussion focuses.

At the **Category** level—the context is a <u>particular world or a shared reality</u>, constructed through the use of language.

At the **Class** level—the context is a shared unit of meaning. Thus, a class consists of group of different key words or key expressions that share the same significance (i.e., were used interchangeably within the professional group) and which appeared spontaneously during the discourse and interviews.

At the **Cluster** level—the context is <u>the words and/or sentences</u> that are the components of each of the key words.

2.2.3 Presentation of Models

The work of an interdisciplinary team brings together a number of spheres of specialization: education, medicine, and therapy. It is also a meeting place of various content worlds, organizational, social, professional, and emotional content, expressed in language and discourse events. All of these processes converge as members of the interdisciplinary team act and interact at the school. In the context of this study, this point of convergence constitutes the research field. Given this degree of complexity, only through the use of a variety of analytic methods—both well-established and newly-created—can the ethnographic web of langue and discourse of the interdisciplinary team be fully elucidated. In fact, every unit of analysis called for a different type of analysis. The methods of analysis used are presented according to the units of analysis (identical to the order of the presentation of the findings).

A model is only a scaffolding; the complete content of the structure is presented in the chapters describing the findings. In this chapter, the models are presented in order to provide the reader with a clear outline of the cognitive, conceptual, and theoretical frameworks underlying this research. The advantage of the model for the reader is that it sums up systematically the way this research was carried out, presenting, clarifying, and justifying the means by which the researcher derived the first and second levels of knowledge from the data collected in the field. The disadvantage of the model is that it never presents reality in full, since reality is far more complex than portrayed by the model. Presented below are the models the researcher used in analyzing the findings in this book.

2.2.3.1 Model for Analysis of the Language Used in Relating to the Work with the Pupils

This model included the following steps.

1. Reading of all the observations, interviews, and documents collected, while attempting to reveal the issues discussed during the work of the interdisciplinary team. Examination of the data yielded the issues to be explored: recurring expressions or words, metaphors, slang expressions, and words with different meanings within the discourse of the interdisciplinary team.

2. Additional mapping of the issues to be researched, produced by repeated readings of all the observations, interviews and documents. The mapping revealed 77 words. The large number of words found had to be sorted into groups. This led to the identification of key words, which were derived from the data. The following groups were formulated, and are presented here according to the number of key words found in each group, in descending order: key words relating to the work with pupils, used by a specific professional group; words relating to the work in the interdisciplinary team; words relating to the subject's own sphere of work; words expressing the speaker's attitude to the pupils; slang words; words belonging to several spheres of content; words relating to the administrative team; words about the work language; words relating to place—the room or the school.

3. Reviewing the categories to identify paradigms and determine which paradigm includes the largest number of words. The two paradigms that emerged were "words relating to the work with pupils" and "words relating to the work within the interdisciplinary team". These paradigms became the focus of the research and, accordingly, they are the focus of this book (see Chaps. 3 and 4).

To make sense of the data as they were produced (verbatim—first order), the analysis sought to identify the key words that corresponded to each of the levels in the nested hierarchy of contexts.

Paradigm—As noted, analysis of this paradigm, i.e., *language related to work with the children*, was the framework in which the model was used.

Category—The categories that emerged within this paradigm were the separate professional groups, each of which shared a particular reality, characterized by its own unique language.

Class—Focusing on the professional groups (category level), the researcher used the model to discern—from the spontaneous language that was used in the discourse and interviews—those phrases and expressions that formed unique meanings, shared only within the professional group.

Cluster level—The particular words and/or sentences that were used together and formed a particular key word or expression.

Then, in a second round of analysis, the first-order findings served as the data, and the purpose of the analysis was to identify what—if anything—could be learned from the key words used by the team members. To accomplish this, an existing model for analyzing classes of key words was needed; hence, a model originating in discourse analysis (Hurford and Heasley 1993) was selected and modifications were made to adapt it to the current study. The model and its adaptation to this study are presented below.

The foundations of this model were laid by Roman Jacobson, and are now accepted by scholars worldwide; then the model was simplified by the linguists Hurford and Heasley (1993), as shown here.

1. Who communicates to whom (senders and receivers)? In this research, this is interpreted as who uses the key word.

2. Why does the interlocutor communicate (functions and purposes)? Here, this is interpreted as the purpose of the discourse.

3. How does communication take place (channels, languages, codes)? This will be noted as: what is the source of the key word? Was it observed at meetings or heard in interviews, or did it originate in school documents?

4. What are the content, objects of reference, and types of information conveyed in the communication? In this study, the researcher identified the subjects of discussion at the beginning of the process based on frequency of key words, and found that the two most prominent subjects focused on the work with the pupils and on the work of the interdisciplinary team itself.

5. What are the consequences of the communication? In this research, "consequences of the discourse" refers to the attitudes and reactions of the different specialists to the key word presented. Was this key word used or even recognized by all of the professionals? Was the message of the communication act successfully conveyed?

The adapted model led to the development of the following protocol, which guided the analysis of every key word.

(a) Determine the original <u>users</u> of said key word, that is, identify the individuals or professional groups that use each key word.

(b) Decipher the <u>meaning</u> of the key word as used by the source group [identified in (a)] and note examples of its use.

(c) Observe the <u>purpose</u> of the discourse.

(d) Consider the <u>results</u> of the discourse.

(e) Examine the <u>frequency</u> of use of the key word (presented in the concluding table).

2.2.3.2 Model for Analysis of the Language Used in Relating to the Team

The analysis of the language used in relating to the team followed the same process as that described above. The distinctive feature was the large number of metaphors used by the professionals, and these were analyzed (seven metaphors out of 16 words). In analyzing the words relating to the interdisciplinary team itself, it was not possible to divide the keywords according to the type of specialization; therefore, the key words were divided in a different way. For instance, key words that were taken from one context of discourse and transferred to another context. The data were processed in the following manner.

Paradigm—As noted, the paradigm of "language related to working in the team" served as the framework in which the analytic model was used.

Category—Given that this paradigm focuses on the work of the team, there was only one category, that of the entire interdisciplinary team, working as a single unit.

Class—At this level, the model was used to analyze the spontaneous language used in the discourse and interviews (and that was related to working with the team), in order to discern key words and expressions which—although

different—were used to convey the same idea. For example, one class that was found consisted of key words and expressions that were used to talk about difficulties within the interdisciplinary team.

Clusters—The language units, words and/or phrases that appeared together and conveyed a single key word.

The model, adapted from Hurford and Heasley (1993, p.60), is the same as the model used to analyze the previous paradigm (see above). Thus, each key word is analyzed and presented in the following way:

1. The identity of the communicators, according to the professional group.
2. The purpose of the discourse.
3. Result of the discourse.

2.2.3.3 Model for Analysis of Discourse Events in the Interdisciplinary Team

The process of analysis of the findings relating to the discourse events in the interdisciplinary team was as follows:

1. Reading the documentation of all the observations of meetings; eight different types of meetings were observed: IEP meetings, pedagogic sessions, administrative team meetings, meetings of the LSD team, in-service courses, supervision, meetings of experts, and meetings to prepare specific events.
2. Selection of meetings for clarification and analysis. The contexts chosen were the IEP interdisciplinary team and the administrative team, for the following reasons. First, the IEP meetings are attended by all the members of the interdisciplinary team (educational, therapeutic, and medical professionals), and representatives of each of these specializations attend the administrative team meetings. Second, these meetings take place twice a week. In order to identify language and discourse, it is important to observe meetings held frequently.
3. Decision to focus on interdisciplinary discourse events occurring between the participants at the meetings.
4. Analysis of the problems and main issues recurring during the observations pointed *to the unit of analysis: information*.
5. Analysis of *information* within the discourse according to the groups of professionals proved impossible.
6. Search for a theoretical model of categories of information. No suitable model was found.
7. Repeated re-reading of the documentation of the observations revealed certain events recurring in the discourse of the interdisciplinary team. These constituted the *information categories*. The following categories were found:
    (a) information acquired through the professional's personal experience;
    (b) information stemming from professional experience;
    (c) learning from this experience and expanding it toward a theory.

It is worth noting that this model is the special contribution of this research. It is not found in the theoretical literature.

8. Ethnographic explanation of all the patterns.
9. Constructing a model for the analysis of dialogues: presentation of the discourse event and its outstanding characteristics.

The patterns of discourse events were analyzed by the type of meeting, subject of the discussion, and salient characteristics of the discourse event. The analysis was conducted according to the following model:

- Pattern of the discourse event and its salient characteristics;
- Team members participating in the discourse (e.g., lead teacher and therapist; doctor and therapist);
- Short description of the event.

Analysis—based on first-order knowledge: initial explanation and interpretation of the discourse events in the eyes of the team member. Second-order knowledge analysis was mainly based on Goffman's theory (1959).

2.2.3.4 Model for Analysis of the Discourse Events in the Administrative Team

The analysis of the findings pertaining to the discourse events was guided by the following process.

1. Reading of all the ethnographic discourse events.
2. Identification of the levels of discourse—the individual and the group level.
3. Identification and analysis of organizational processes occurring during the discourse, by means of events taking place between the administration and the administrative team.
4. Identification and clarification of covert discourse. This analysis was based on two theories: Minuchin's theory of family therapy and Goffman's dramaturgical approach.

Consideration of guiding questions to facilitate analysis:
    Why was this situation chosen?
    What took place, what are the characteristics of the team's work?
    What is the arena—the stage?
    What are its components?
    What play was being enacted?
    What were its boundaries?
    Which theories explain the situation and provide a basis for analysis?
    What are the unique features of the findings?
    Analyzing a discourse event is very complex, and the researcher could not find a model in the literature to assist; therefore, the researcher created the model presented in the book, inspired by existing theories of family therapy. Minuchin's (1982) approach was particularly useful.

2.2.4 Rationale for the Choice of Minuchin's Approach (Minuchin 1982)

The family therapy theories were helpful, since the therapist in that situation observes a family with its organization, inclusiveness, boundaries, coalitions, and other structural features. Only models dealing with such dynamic processes make it possible to integrate several theories, and to present and elucidate a number of simultaneous interactions occurring during that event observed. Such analysis is complex, demanding an understanding of both overt and covert processes. Minuchin's (1982) structural approach proved stimulating and useful for the following reasons.

1. The therapeutic framework in this case is to view the individual within the social context, since the theory of family therapy is based on the idea that a person is not an isolated entity, but an acting and reacting constituent of a social group. What the individual experiences depends on both internal and external components. Thus, people's experiences are determined by their dynamic interaction with their environment.
2. Structural treatment of the family is rooted in action. The approach in such treatment is to focus on the present, rather than probing into the past and its significance, since the past was the means by which the present organization and functioning of the family was created.
3. A family is a system, operating according to certain patterns, which constitute its foundations. These patterns regulate the behavior of the family members and they are preserved by two networks of constraints: a general one, comprising universal laws controlling family relationships, and an idiosyncratic one, containing the mutual expectations of the family members. The source of the expectations lies in overt and covert negotiations.
4. The structure of a family is not an entity immediately accessible to the observer. The therapist must observe the family over a long period in order to obtain the necessary data and be able to assess them, just like a researcher studying an interdisciplinary team.

2.2.4.1 Rationale for the Choice of Goffman's Dramaturgical Approach (Goffman 1959)

Erwin Goffman's dramaturgical theory served as a basis for understanding situations observed in the field, and later it served as a useful framework for organizing—and often for comprehending—the findings. It was helpful for the following reasons.

1. The focal point of Goffman's approach is the team. His definition of a team is appropriate to the team in this study. Goffman defines a team as a group of individuals collaborating in the performance of a routine. He adds that their collaboration is required if they wish to preserve the given interpretation of the situation.

According to Goffman, the definition of a team entails mutual interaction or a sequence of interactions, during which the relevant definition is preserved. Goffman's theory facilitates focusing on interaction taking place during team-work, by clarifying and defining components such as team member, roles of the actors in the team, the individual in the team, agreements or conflicting opinions in the team, taking up a uniform position, updating the knowledge in the team, error of a team member, and also the leader of the team. Such an approach to interaction enabled the researcher, acting as an observer, to understand what was happening at the overt level during a particular discourse.

2. In presenting his approach, Goffman makes use of many concepts that enabled the researcher to understand, and sometimes also to interpret, discourse on the covert level. This is a partial list of the concepts that were borrowed from Goffman's approach: "the front", "the social front", "the sign-equipment", and "the backdrop for the individual's actions". Goffman's perspective is that of a theatrical performance. He discusses the way in which individuals present themselves and their actions to others during the usual work situations, the way they shape the impression others receive of them and check it, the things they do or refrain from doing while acting in front of the team. The discrepancies that arise between appearance and reality, or between an existing, shared definition of the situation and an individual's definition that differs from the mainstream view, create cognitive dissonance in the observer. Goffman maintains that, as researchers, we must be ready to examine the essence of the dissonance that has emerged in us. The starting point of the investigation is what he calls "the definition of the situation", since it serves as a basis for collaboration between professionals in an interdisciplinary team. The definition of the situation also leads to action.

3. Goffman presents and clarifies important characteristics of teams, and distinguishes between them. This distinction provided a basis for the understanding of overt and covert processes that occurred between different groups of professionals. The following elements are mentioned: "a front of consensus"; "regional front"; "the back region" or "behind the scenes"; "impression management"; "closeness"; "destructive information"; "secrets in the team", including types of secrets—a dark secret, a strategic secret, an inside secret, a secret that stems from knowledge from another team, an entrusted secret, and an open secret. Another element mentioned is contradictory roles in a team,

Table 2.1 The theories that inspired the structure of the analysis

Analyses of findings, by chapter	Theories inspiring analysis of findings
Key words relating to pupils-Chap. 3	Discourse analysis—adaptation of an existing model
Key words relating to team-work-Chap. 4	Discourse analysis—adaptation of an existing model (same as above)
Discourse events in the interdisciplinary team's meetings-Chap. 5	Model constructed for the purpose of this analysis—model of Information Categories, inspired by Goffman
Discourse events in the administrative team's meetings-Chap. 6	Research model constructed for the purposes of this study, inspired by family therapy

e.g., an expert versus a mediator. Elements of the team dynamics are incidents, as well as techniques, to preserve an impression. Behavioral elements include "dramaturgical significance", "prudence", "dramaturgical alertness", and tact. These concepts enabled the researcher to understand the discourse and organize data in the first level of analysis, and they also were useful in the second level of analysis.

To conclude, the Table 2.1 presents the theories that inspired the structuring of the analysis and facilitated an understanding of the first and second order of knowledge, as presented in this book.

Finally, Goddard andWierzbicka (Goddard and Wierzbicka 1997) state that interpretation and explanation are never complete and authoritative; they are dynamic and open to new contexts and new information.

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