

## **Ethnographic research on ad hoc interpreting in a linguistically diverse emergency department: The challenges of data collection**

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### **ABSTRACT**

Getting access to medical settings for research on interpreting has proven to be challenging. This methodological paper describes hindrances and success strategies in the data collection process for a study on language barriers and ad hoc interpreting in a linguistically diverse inner-city hospital emergency department (ED). It reviews the different steps taken by the researcher prior to embarking upon data collection through participant observation and audio recording of ad hoc mediated clinician-patient encounters in the ED. The aim of this paper is to encourage discussion on procedural issues that have previously received little attention and to facilitate future research.

**KEYWORDS:** access to the field, ad hoc interpreting, audio recording, emergency department, ethnographic data collection, language barriers

## **1. Introduction**

*“Emergency medicine is largely a communicative activity, and medical mishaps that occur in this context are too often the result of vulnerable communication processes”*

Eisenberg et al. (2005: 390)

An emerging body of research shows that language barriers between patients and healthcare providers may lead to erroneous diagnosis, poor follow-up (e.g. missed appointments) and/or incorrect medication intake; and are a major cause of health disparities in primary care (Divi et al. 2007; Karliner et al. 2012; Schillinger and Chen 2004). According to Watt (2008), eighty percent of a medical diagnosis depends on oral communication. Similarly, White et al. (2013: 310) highlight the centrality of communication to the delivery of safe and effective medical care.

The high stress nature of the emergency department (ED) poses specific challenges to communication (Slade et al. 2015: 83) as a result of time pressure, potential distraction resulting from long and tiring clinician shifts, the sense of urgency, and lack of prior

information on patients (Chisholm et al. 2001; Knopp et al. 1996). Communication is often interrupted by phone calls as the clinician is treating more than one patient at the same time (Knopp et al. 1996: 1067); and the five key components of optimal doctor-patient communication (establishing rapport with the patient, gathering and giving information, providing comfort and collaboration, see e.g. Burley (2011)) usually need to be performed simultaneously in the ED. According to Slade et al. (2011: 25; 2008), EDs are predominantly a spoken language context where written records play a secondary role, and where, due to time pressure, a lot of what is said by patients is not stored in their written records.

Past research has pinpointed language barriers as a major obstacle to proper history-taking in the ED (e.g. Burley 2011) and that medical errors in the ED often result from poor communication (Eisenberg et al. 2005). Increasing cultural diversity among patients and the multiplicity of symptoms and problems they present also contribute to the increasing complexity of ED communication (Scheeres et al. 2008: 13). Patients from foreign descent are often overrepresented in hospital-based care, which means that hospital staff is more likely to encounter problems relating to language barriers. As progressive migration and globalization are contributing to diversity in hospital EDs in major cities all over the world, and clinicians are increasingly confronted with the challenge of communicating with patients with whom they do not share any language, better insights are needed on how to deal most effectively with multilingualism on the hospital floor.

Despite a consensus in the literature that the use of professional interpreters is the best option to overcome language barriers between patient and healthcare workers (Karliner et al. 2007), the use of *ad hoc* interpreters is common practice in the ED (Ramirez et al. 2008) and in health care in general (Meeuwesen and Ani 2011; Meyer et al. 2010; Schouten et al. 2012). These usually are friends, family members or other acquaintances who accompany the patient to the hospital. They tend to be more proficient than the patient in the hospital's official language and support the communication process between the clinician and the patient by taking up the role of a non-professional interpreter.

Earlier research by Flores et al. (2012) reveals that in the absence of professional interpreters, more communication and translation errors occur. The main errors identified in interactions mediated by *ad hoc* interpreters consisted of omissions (not translating chunks of talk) resulting in crucial information loss at the "detriment of medical practice" (Cambridge 1999, 201), adaptations (adding a word or phrase to the interpretation that was not said by the

clinician or patient) and editorialization (with the interpreter giving his own view rather than translating what has been said) (Flores et al. 2012: 546). There is a risk that the *ad hoc* interpreter starts speaking for the patient, excluding the patient from the conversation (Leanza et al. 2010). Another major risk of using *ad hoc* interpreters is false fluency, which means that interactions appear fluent and unproblematic, but in fact conceal significant miscommunication (Meyer et al. 2010: 298).

Angelelli (2004; 2008; 2012) emphasises the importance of training for medical interpreters, in order to become familiar with the specific communicative characteristics of the medical encounter and the corresponding terminology, in addition to the acquisition of interpreting skills. She also argues that health providers should be trained on how to work with interpreters.

On the other hand, there are also a few studies that highlight the potential benefits of *ad hoc* interpreters (Gray et al. 2011: 241). *Ad hoc* interpreters are more readily available, can create trust between the clinician and the patient and provide important contextual information on the patient (Greenhalgh et al. 2006; Leanza et al. 2010; Meyer et al. 2010).

Moreover, it has been argued that some of the above-mentioned risks also exist for trained interpreters (see e.g. Gray et al. 2011; Wadensjö 1998). For example, research by Bolden (2000: 414) shows that during history-taking, professional interpreter's translations to the patient are geared towards the medical goals of the consultation, pursuing questions that are diagnostically relevant. This implies that interpreters tend to formulate closed ended questions that favour yes/no answers but also limit the patient's narrative in the response. Along the same lines, Davison (2001: 170) finds that, rather than neutral conveyors of messages, professional interpreters often act as covert co-diagnosticians and as institutional gatekeepers.

The literature acknowledges that emergency medicine is a very particular field which calls for context-specific research on communication and its impact on health outcomes (Eisenberg et al. 2005: 391). The ED has its own context (Paltved 2012) and its own discourse (Scheeres et al. 2008) which differentiates it from other hospital departments or medical care settings. Still, most of the existing research on clinical communication has focused on general practice outside the hospital (Slade et al. 2008); and research on communication and interpreting in the ED remains scant. Within interpreting studies, research on *ad hoc* interpreting is less frequent than on professional interpreting and this field needs to be further explored (Pérez-González and Susam-Saraeva 2012).

Most studies that exist on language barriers and interpreting in the ED are quantitative in nature and concentrate on the outcomes of the communication process. Few studies have looked at the microstructures of physician–patient ED interactions involving language barriers (David et al. 2006: 357) to assess “actual behaviour” (Priebe et al. 2011: 11). Slade and co-authors have conducted innovative sociolinguistic research on the communicative dynamics of EDs in both Australia and Hong Kong, but they do not consider the impact of language barriers. Patients who needed an interpreter were excluded from their Australia study (Scheeres et al. 2008: 14; Slade et al. 2008: 294); and only native Cantonese speakers were included in their Hong Kong study (Slade et al. 2015: 71).

## **2. Object of the study**

One reason for the remaining knowledge gaps in the field of *ad hoc* interpreting in the ED could be the difficulty of gaining access to the study field for audio recording of clinician–patient interactions, given the often cumbersome ethics regulations applied to hospital-based research. In a different context (including a sign language interpreted dentist appointment), Metzger and Roy (2011: 61) note that gaining access face-to-face encounters that are private and personal is complicated, in particular because of all the arrangements that need to be made, including permissions, consent paperwork, equipment and logistics. In the ED, obtaining consent is even more difficult, given the lack of prior information on patients, high time pressure, and the often urgent care situations encountered.

This paper brings an account of the different steps that were undertaken by the researcher to collect data for an ethnographic research project that aims to contribute the literature on the microstructure of misunderstandings in ED clinician–patient interactions involving language barriers, in particular at times when professional interpreters are not available. Ethnographic research requires an intensive phase of data collection. This paper discusses a number of important challenges that were encountered in the process of collecting these data.

After a brief description of the methodology used in this research project (Section 0), and a discussion of the broad setting of the study (Section 0), this paper reviews key phases of qualitative research from a methodological perspective. A first challenge was getting access to or a foot on the ground in the research site (Atkinson et al. 2007), in particular the hospital ED, and obtaining permission from the ethics committee for data collection (Pope and Mays 2006) (see Section 0). Obtaining permission from the ethical committee was a lengthy

process. A particular obstacle was the requirement to obtain patient consent for participation in our study, given the language barriers faced and (often) low patient literacy (Cox and Dauby 2014). The time required to find a solution to this problem was used for acclimatization, gaining acceptance by the research site's staff (Angrosino 2007), and the collection of useful contextual elements (see Section 0). Eventually a solution was found (see Section 7), and data collection could start.

### **3. Overview of methodological approaches**

*"A problem well put is half solved."*  
Dewey (1939: 108)

Methodology-wise, this research project approaches the medical interview as "a conversation with a purpose" (Bickley 2013), accounting simultaneously for the medical goals and the sociolinguistic communicative characteristics of clinician-patient interactions. The project takes a qualitative approach, and borrows methods from the ethnography of communication (Hymes 1974), to achieve a detailed and holistic description of misunderstandings that occur in clinician-patient interactions mediated by interpreters. A prior understanding of when and how these misunderstandings occur, is crucial for awareness raising among hospital staff, as well as for the development of appropriate solutions.

Paltved et al. (2012: 772) highlight the relevance of qualitative methods to the study of the highly complex medical and social context of the ED, in particular because of its potential to reveal the involved actors' thinking, feeling and acting; to capture organizational and team processes; and to support development of theory with clinical and organizational implications. Doing ethnographic research means that the researcher, in an attempt to get a holistic view on the study object, often spends considerable time (generally at least 6 months) in the study setting (Fetterman 2008). Data are collected via a combination of different techniques, such as observation, formal and informal interviews, and audio recordings. Contextualization, a non-judgmental orientation, and accounting for culture and multiple realities are crucial aspects of data collection (Fetterman 2008: 288).

As it looks at communicative events in a holistic way (Angelelli 2004; Angelelli 2000; Gumperz 1982; Hymes 1974; Roy 1999) and takes as many as possible relevant elements into account, the ethnography of communication offers a rich set of methods to study language and

communication in context. In Hale (2007: 228)'s view, ethnography is an effective tool to study interpreter interaction "where issues of bilingual competence, interactional skills and cross-cultural knowledge are crucial."

Within the field of medical interpreting, Angelelli (2004) was one of the first researchers to use ethnographic methods. She spent 22 months observing in a Californian bilingual hospital to analyse the roles of professional medical interpreters within the hospital's context, the context of the society at large, and relevant social factors. Slade et al. (2015; 2008) applied the same methods to ED communication. This research project proposes to build further on these previous studies by applying ethnography to ED communication in the presence of language barriers.

Within the discipline of ethnography, the context of communication should be investigated rather than assumed (Rampton et al. 2014: 4). This applies in particular to interactions that unfold in a very specific and complex context, as is the case of ED-based medical care. Building on earlier work on context by Gumperz' (1999) and Cicourel's (1992), the following conceptual framework was set up for the collection of relevant contextual elements:

- **Individual elements:** personal elements such as education, personal context, knowledge, assumptions, experiences, ideas of the ED staff and patients that may have an impact on communication. These include individual social factors identified by Angelelli (2004) and autonomous factors identified by Li (2013).
- **Situational elements:** elements that arise during a particular encounter or gathering (Goffman 1964) which may have an impact on communication. These include interactional factors (Li 2013) and elements such as pitch or tone (Gumperz 1992).
- **Organisational elements:** elements (location, technology, administration) of coordination, management, organisation, and procedures in the ED that may have an impact on communication.

#### **4. Broad setting of the study**

The Brussels healthcare sector is an interesting case for research on cross-linguistic communication due to its multicultural and multilingual character. Research by Deboosere et al. (2009) suggest that almost 50 percent of the Brussels population held a foreign nationality

at birth. Brussels also hosts a large number of undocumented immigrants (Lacourt 2007). According to Vandermotten et al. (2011), many ethnic minorities move to the capital, looking out for solidarity and security, and big cities are a refuge for those who are excluded from the regular economy.

The city's multicultural and multi-ethnic character is strongly reflected by the diversity amongst hospital staff as well as patients. Foreign patients are often overrepresented in the hospital ED, as they tend to bypass primary care providers (Debosscher 2012; Rivadeneyra et al. 2000). For those who do not speak French, Dutch or another common language such as English, access to and quality of healthcare may be constrained.

To explore *ad hoc* interpreter mediated consultations, data were collected in the ED of a public inner city hospital in Brussels. The municipality of Brussels hosts Belgium's largest reception centre for asylum seekers, with approximately 720 beds (Fedasil 2011). This centre and the municipal Public Social Action Centre (CPAS/OCMW) have agreements with the hospital under study for medical treatment of asylum seekers. Most of these newly arrived immigrants do not speak Dutch or French, and are equally unfamiliar with the Belgian institutional context.

The inner city ED under study treats on average 55,000 patients per year (Cerf 2012). About 40 percent of these patients hold a foreign nationality and 4 percent are homeless. For the latter, there is a special observation room. The hospital is also an academic training centre for future doctors and nurses. The ED employs 80 persons of different ethnic and linguistic origins, including medical staff, clerks, and maintenance and cleaning staff. During the day, the hospital to which the ED belongs benefits from five on-site professional medical interpreters, covering the major foreign languages encountered amongst patients (Classical Arabic, Moroccan Arabic, Turkish, Polish, Russian and Romanian), and from support by external community interpreters catering for other languages. The latter are however seldom called in.

## **5. Getting access to the emergency department**

According to Hammersley and Atkinson (2010: 41), “the problem of obtaining access to data looms large in ethnography.” Hospitals in particular have proven to be difficult places to gain access for research on communication (Slade et al. 2008), and especially research involving

audio recording of clinician-patient interactions (Valero-Garcés 2002: 470), given the often cumbersome ethics regulations. As many potentially valuable research projects encounter problems at this stage, discussing potential approaches in more detail can be useful.

### *5.1 Finding a gatekeeper*

The easiest way to gain access to a hospital for research purposes is by identifying a “gatekeeper” that helps the researcher “enter the field”: an insider with a personal interest in the research project that can metaphorically open doors to give the researcher a foothold in the site of study (Mack et al. 2005).

This study took place within the framework of a project on multilingualism in healthcare funded by INNOVIRIS (2014), a research funding agency of the Brussels Capital Region, in partnership with the IRIS-network of Brussels public hospitals. The hospital network proposed that the coordinator of language policy would follow the project from their side.<sup>1</sup> This person had several years of experience working in the hospital and she had built up a good rapport and contact with several heads of unit in the hospital. Moreover, she took great interest in collaboration, given the challenges the hospital network faces with regard to language diversity. This gatekeeper was instrumental in identifying hospital staff members who could guide me through the procedures of gaining permissions for recording.

Clearly communicating the research topic and objectives was a crucial step in the process of negotiating access (Hammersley and Atkinson 2010: 42). To this extent, the gatekeeper sent a jointly drafted email to the heads of unit in the hospital network that she thought might be interested in collaborating in the research project. The email explained the aims of the research project, and the proposed data collection strategy, notably participant observation and audio recording clinician-patient interactions in the ED.

An expression of interest came from the head of unit of the most diverse ED in the hospital network under study. Our gatekeeper then introduced me personally to this head of unit, who agreed to allow for observation and recording in his unit, conditional upon obtaining official permission through the formal procedure, which requires approval by the ethics committee.

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<sup>1</sup>The hospital under study belongs to the Brussels public hospital network. As Brussels is officially bilingual, the staff in public institutions are officially required to speak both French and Dutch. To facilitate this, the hospital network runs a special language course scheme, managed by a language policy coordinator. While my research project does not focus on French-Dutch bilingualism, this coordinator and I made an easy connection based on our shared interests, as we are both linguists dealing with the subject of patient-centered communication.



The head of unit also volunteered to act as the project's principal investigator in the research proposal for the ethics committee. His incentive to participate in the project was that his unit was coping with a large group of patients with no or limited command of the hospital's official languages (Dutch and French) and of English, which is commonly spoken by medical staff. He hoped that a study like ours would shed new light on the question of how to facilitate communication under such conditions.

## *5.2 Complying with ethics regulations*

For any form of data collection from patients in a hospital context, approval from a formal ethics committee is required. This committee ensures that ethics regulations are complied with, and in particular, that patient rights to privacy and quality care are guaranteed. Health research has a tradition of strict ethics regulations, with stringent rules on informed consent (IC) procedures (Pope and Mays 2006) which require patients to sign an IC form prior to participation in clinical research. In principle, ICs are based on the concept of autonomy, and should allow patients to independently make an informed decision on whether to participate in a study or not, based on their full comprehension of the provided information (Berg and Appelbaum 2001).

Most hospital-based research still draws on biomedical and psychosocial surveys (Hammersley and Atkinson 2010: 43), and the ethics committee approval protocol is geared towards such studies. The first draft IC form for this study was based on a sample IC form used for clinical trials. This sample comprised an extensive list of issues: project relevance, objectives, methodology, expected outcomes, funding agency, and potential risks for patients involved. Using such a long IC form in a context with limited patient understanding due to language barriers, often aggravated by a low degree of patient literacy, was a major challenge. Section 7.1 discusses in more detail how this challenge was addressed.

As in most hospitals, the ethics approval procedure was a rigorous and bureaucratic process, which relied on strictly scheduled and infrequent meetings of a committee of members. There was a significant waiting list of research proposals on the agenda of the committee. For any minor incompleteness of the file, the approval decision was deferred to the next committee meeting. Once the file was complete, the committee approved the proposal. By then, the approval process had resulted in a considerable delay to the research project: five months passed by between my first meeting with the head of unit who was interested in the project and the final approval of the research proposal by the hospital ethics committee.

Approval was obtained, but with reservations on the feasibility of obtaining IC from the concerned patients. Participant observation without audio recording did not require the patient's IC, and could therefore be initiated before having found a solution to the problem of obtaining IC. This phase was used to collect "broad" contextual information and explore possible strategies to obtain IC from our study subjects.

## **6. Collecting "broad" contextual elements**

*...a fieldworker will need to give proof of all the good qualities in life: patience, endurance, stamina, perseverance, flexibility, adaptability, empathy, tolerance, the willingness to lose a battle in order to win a war, creativity, humour and wit, diplomacy, and being happy about very small achievements. Put that in a job advertisement and you will never find a suitable candidate.*  
(Blommaert and Jie 2010: 24)

A first period of observation, before obtaining the permission to audio-record clinician-patient interactions, served for acclimatization. The purpose of "acclimatizing" (Burns 2000) was to get a "thick description" (Geertz 1973) of the ED context and to become familiar with the staff. I gradually integrated into the ED team and graduated from a "pure outsider" to an "acceptable incompetent" (Fielding 2001). This first period allowed for the collection of organisational, individual, and situational contextual information, and the identification of practitioners with an interest in the research project who were willing to contribute insights based on their expertise.

### *6.1 Organisational contextual elements*

I spent the first weeks of acclimatization in the clinicians' dispatch room where test results were analysed and patient files were filled out in between patient visits. Clinicians orally agreed to give a sign when they would go and see a patient. However, in practice, they remained hesitant to ask me to come along as they went to see patients. In order to avoid disturbing their hectic work, being pro-active did not seem the best strategy. Still, although "just sitting there" felt a bit uncomfortable, the "backstage" observation of the place "behind the scenes" where the staff worked out of the sight of patients (Goffman 1959) helped me recording the organisational contextual information of the ED needed for the later study of the actual communicative events, in particular the interactions with patients.

Clinicians were observed during multitasking, analysing, and ordering blood samples, graphs, X-rays, calling colleagues in other units for hospitalization of patients and keeping patient files up to date. Very often, they were seeing different patients simultaneously. They were also often called for other issues on their internal mobile phones. Laxmisan et al. (2007) noted earlier already that multitasking is a typical characteristic of work in the ED.

## *6.2 Individual contextual information*

In general, the staff were very welcoming. They invited me for lunch, and whenever they had time, they would answer questions. These conversations granted space for explaining them the purpose of my research, to get to know clinicians and nurses on a personal note, and to learn about their background, experience, and opinions.

When they first heard I was involved in applied linguistics research, the staff assumed it focused on bilingualism, which is a rather sensitive issue in Belgium. As the hospital is officially bilingual French-Dutch, native French speaking staff talked about their own Dutch language skills. A few of them felt uncomfortable and apologized for not speaking Dutch fluently. Other researchers have reported as well that the way in which they present themselves or are introduced may determine whether individuals under study feel “threatened” (see e.g. Angelelli 2004: 45). In overt research it is not unusual for study subjects to define or place the researcher according to their experience in an initial response (Hammersley and Atkinson 2010: 63). Once the staff knew that the study focussed on communication with patients who did not speak (properly) any of the official languages, and that their own bilingualism was not a topic of interest for his study, they seemed to become more relaxed and forthcoming.

Many doctor trainees came from the same university as I did. This helped me to blend in. The resident staff started to spontaneously introduce me and my project to new staff members. During informal chats, some of the staff members explained why, despite their interest in the research topic, they were hesitant to have the company of a researcher as they were seeing patients. They feared that this study might report on and criticize their behaviour with patients; in other words, that it would judge their way of communicating with patients. This information was crucial. Once they learnt that this study was bound by a duty of professional confidentiality and that no personal information with regard to the observations would be documented publicly or reported to the head of unit, their hesitation disappeared.

Others explained they were often so busy that, even though I was welcome to join them, they forgot to invite me to come along. Thanks to our informal encounters backstage, however, we gradually became more relaxed in each other's presence; and increasingly I was invited to join in when they were seeing patients "front stage" (Goffman 1959).

For privacy reasons, patients were not interviewed but their individual contextual information (e.g. where they are living/working; how long they have been in the country; marital status; insurance) could be derived from clinician-patient interviews.

### *6.3 Situational contextual information*

As it was often difficult for doctors to predict whether relevant communicative events would arise, I started to "shadow" individual doctors for a couple of hours. This enhanced the building of rapport with these doctors, and helped to deepen the understanding of patient trajectories in the ED and the situational context of clinician-patient encounters. I gained insights into the logic of medical consultations and treatments. The staff were used to having medical trainees following them, and hence also to explaining medical rationales and procedural logics of each step they were taking. Accompanying doctors in their walks to and from the dispatch room provided time to interview them. These instant interviews generated extra contextual, social, and pathological information regarding patients, procedures, as well as the staff's view on the communicative event with the patient that had just taken place.

### *6.4 Participants as co-researchers*

Given the importance of specialized and technical information for communication in the ED, the "participant as co-researcher" approach was used (Given and Boylorn 2008). This is a participatory research method that invites participants (ED clinicians for this study) to collaborate in data collection and analysis. An advantage is that participants contribute additional insights from their own perspective on the study subject (Given and Boylorn 2008: 599). This "emic" approach is common in ethnographic research (Fetterman 2008).

Some doctors showed a particular interest in the research project, and were ready to devote time and efforts to contribute formally to the project. One doctor was instrumental in finding a strategy to overcome language barriers in obtaining patient IC; another doctor helped collecting quantitative data on patient diversity in the ED. Previously undocumented expertise among some medical staff with regard to communication and language barriers was recorded.

In an increasingly globalized world, documenting this expertise could help other, less-experienced practitioners in their interaction with foreign language speaking patients.

## **7. Overcoming operational challenges**

As mentioned before, a major challenge encountered in data collection, was the need to obtain patient IC prior to audio recording clinician-patient interactions. As our research focuses on patients faced with language barriers in receiving medical care; patients are likely to experience similar language-related problems in trying to understand the IC form. Another challenge was to win patient trust. In particular, patients who do not speak the language of the clinician and/or the researcher may be suspicious towards signing any document at all. This section explains how these challenges were addressed.

### *7.1 Obtaining informed consent*

The first IC form, which had been adapted from a sample IC form used in clinical trials, provided patients with detailed information on a long list of issues (see Section 5.2). The result was a four page-document, which was to be understood and signed by the patient. However, as our study focuses on patients who do not speak French, Dutch, or English, or have only a limited proficiency of any of these languages, making patients understand such a long document was difficult. As the concerned patients came from very diverse linguistic backgrounds, providing a translation of the document in each language was very expensive and almost impossible. This presented an obstacle to our data collection.

In a first attempt to overcome this problem, a simplified French language form was compiled. This form was then approved by the head of unit of the ED. However, even with this simplified IC form, it took too much time for patients to understand it; and this time was usually not available in the ED. Many patients proved to be illiterate. Moreover, the document often seemed to generate suspicion among patients, especially among “undocumented” patients who were possibly afraid to sign any document, as they feared being reported to immigration officials.

A second attempt was more successful. It involved the compilation of an audio-recorded IC form in the most prevalent languages of the patients visiting the hospital, often including "trans-explanations" or explanatory translations—a combination of translations and explanations of difficult technical terms for individuals with a less technical background (Cox

et al. 2013). For the compilation of these forms, field specialists and medical interpreters familiar with the target audience were consulted. More details on this audio-recorded IC are provided in Cox and Dauby (2014). The ED's head of unit agreed to our strategy. A positive side-effect of using the audio-recorded IC forms in the patients' native language, was that it had a calming effect on patients by appealing to their cultural identity (Gumperz 1982).

## *7.2 Enabling research by reassuring patients*

Initially, a classic Dictaphone was used to record interactions. However, the intrusive presence of this tool seemed to intimidate patients or cause anxiety. Moreover, given the hectic context of the ED, in which many patients were seen simultaneously, it was difficult as an observing researcher to keep up with note taking on relevant contextual elements. Multitasking was compulsory to keep track of the different simultaneously unrolling communicative events.

A practical solution was found in the use of a smartpen<sup>2</sup> that allowed for multimodal recording. This tool consists of a digital pen with a micro-camera on top and a special paper notepad. With the micro-camera, the writing was filmed and thus digitalized along with the simultaneously recorded audio. The smartpen allows one to write down a set of key words, while the full details of the conversation are audio-recorded. One can draw the movements that take place in the examination booths, and record relevant positions and gazes of participants in the interactions. This facilitated note-taking on extra-linguistic elements such as gaze, position, appearance, and movements (Bezemer 2012).

Another advantage was that the smartpen was smaller and more discrete than a classic Dictaphone, as it resembled a normal pen. The fact that I used the smart pen to note down contextual elements prevented me from just standing and potentially giving a staring look. To ensure that the patients knew it was a recording device, the use of the pen was clearly demonstrated during the presentation of the research project. Although the patients' stress level was not formally measured, I had the impression that the patients were not bothered by the smartpen, in contrast to the Dictaphone.

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<sup>2</sup> In this project, a smartpen from the company Livescribe ([www.livescribe.com](http://www.livescribe.com)) was used.

## **8. Results**

Over a time span of six months, 130 clinician-patient interactions in the ED were recorded using the multimodal approach outlined in this paper. Out of these 130 interactions, 31 took place in the presence of an *ad hoc* interpreter. Working with the smartpen allowed us to simultaneously record sound and relevant contextual elements. Before and in between most consultations walk-and-talk interviews were recorded.

The recorded set of clinician-patient interactions will be transcribed and translated by native speakers. These transcripts will then be subject to multidisciplinary analysis. Clinicians will be consulted on specific interactions, to find out what is considered as best practice in the specific situations under study, and what can be learned from experienced professionals.

## **9. Conclusion**

This paper has described the methods used and the challenges encountered while making the necessary arrangements for data collection for a research project on communication involving language barriers in a highly diverse hospital ED. Substantial time was needed to overcome these challenges, and this has delayed the research project. From the first email to potentially interested heads of unit in the hospital under study until the approval of the audio-recorded IC form that cleared the way for audio recordings of clinician-patient interactions, one year had passed.

At the same time, the different stages of the preparatory work allowed me as a researcher to gradually get to grips with and identify some structure in the hectic atmosphere of the ED, to join up with staff, to learn about the logic of a consultation and the main communication problems experienced by the hospital staff and their patients. By shadowing and interviewing doctors, I gained insights in their personal views and experience. The collaboration with clinicians resulted in joint efforts to overcome methodological challenges. Together we tried out different strategies to obtain informed consent. We experimented with different recording devices, going from an apparently intrusive Dictaphone to a more discrete smartpen that allowed for combining audio recording with taking note of the corresponding context.

The triangulation of field notes, audio recordings, interviews, and member checking by the hospital staff supports the collection of a robust data set. This academic collaboration with

practitioners is vital in ensuring that the data analysis is relevant to the field, as it is expected to feed into practitioner training courses on communication in the presence of language barriers.

Finally, a major conclusion emanating from this exercise was that, in addition to preparing scientifically for a research project (reviewing literature, developing a framework of analysis), sufficient time needs to be allocated to make the necessary arrangements (including networking and logistics) for the preparation of ethical and scientifically sound data collection. During the entire process, it is important to remain open and flexible to changes and unplanned challenges, as these are highly likely to occur.

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