

## *Can you measure attitudinal factors in intercultural communication? Tracing the development of attitudes in e-mail projects*

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### Abstract

Intercultural competence has acquired an important role in the foreign language classroom. However, we must also come to terms with assessing this highly complex construct if we consider it as a superordinate learning objective. Therefore the components of intercultural communicative competence that go beyond knowledge, especially attitudes, deserve closer attention. On the basis of Byram's (1997) model of Intercultural Communicative Competence (ICC), an attempt has been made to trace the development of attitudes as part of ICC in computer-mediated intercultural communication. Data was drawn from three e-mail projects that took place between 2001 and 2002. Three different upper-secondary classes at a vocational school in Mainz, Germany (n=64) exchanged e-mails with two groups of US-American undergraduate students in Ohio (n=57) and one group of undergraduate students of English from Tokyo (n=30). Preliminary findings from a telecollaborative seminar with US-American undergraduate teacher students at a German teacher training institution were used to support the data. The main question addressed in the paper is whether attitudinal components of ICC can be measured quantitatively in telecollaborative environments. To do this, specifications and implementation of learning objectives for attitudes as put forward by Byram (1997) are applied to different instruments within the framework of the e-mail projects, including a triangulation of instruments. Instruments include e-mails, critical incidents, essays and interaction journals. When data was ambiguous or incomplete, follow-up interviews were conducted with pupils. Results of the study suggest that it is not possible to measure attitudes with the instruments described, but that they can help teachers to describe evidences of attitudes in interaction and trace developments to provide a basis for feedback.

Keywords: Intercultural learning, communication, intercultural communicative competence, assessment, telecollaboration, e-mail project

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### 1 Introduction

The world seems to be shrinking in a time of ever-increasing intercultural contacts, both professional and private, which are facilitated by technology such as the internet and its

various services. The possibilities for intercultural communication, in real life or computer mediated, are far greater than ever before, and they can be profited from in the foreign language classroom.

Learning a language automatically implies learning about cultures, both your own and those of other groups. Language and communication reflect culture, and worldviews are contained in the language that the interlocutor uses. Kramersch (1998) holds that language expresses and symbolises cultural reality. Consequently, learners of a foreign language also have to learn about underlying cultural aspects so that they are enabled to engage in effective, meaningful and fruitful communication and establish satisfying relationships across languages and cultures.

Byram (1997: 3) maintains that the success of a communication situation does not only depend on the efficiency of an information exchange but that it is also focused on establishing and maintaining relationships. Thus an important objective of foreign language teaching is intercultural competence, which in accordance with Byram (1997: 5) shall be preliminarily defined as “the ability to understand and relate to people from other countries” although attention must be drawn to the fact that intercultural communication also takes place between speakers of the same national provenance.

The importance of intercultural competence as a learning objective in the foreign language classroom has considerably increased in the 1990s although there were attempts to include intercultural learning in curricula before then. The changing status of intercultural importance finds its expression in Lustig and Koester’s (2003) international and domestic imperatives for intercultural competence in the US as well as the concept of democratic citizenship in Europe (Byram 2003), just to name two examples. With diverse societies being the norm in post-industrial times the concept has found its way as a learning objective into curricula on a global scale, e.g. in Australia (Crozet, Liddicoat & Lo Bianco, 1999). The Common European Framework of Reference for Languages has received considerable attention, not only in Europe. It specifies the promotion of plurilingualism and pluriculturalism as its main objectives for European citizens:

“Plurilingualism has itself to be seen in the context of pluriculturalism. Language is not only a major aspect of culture, but also a means of access to cultural manifestations. (...) [I]n a person’s cultural competence, the various cultures (national, regional, social) to which that person has gained access do not simply co-exist side by side; they are compared, contrasted and actively interact to produce an enriched, integrated pluricultural competence (...).” (Council of Europe, 2001:6)

Neuner (2003) identifies an intercultural approach in foreign language teaching which has been present since the 1980s. It focuses on aspects such as language awareness, the discussion of cross-cultural experiences, the discussion of stereotypes and negotiation of meaning.

The ability to understand and relate to people from other countries or cultures has been discussed widely in the literature (Wiseman, 2003; Lustig & Koester, 2003; Samovar & Porter, 2004) and has been labelled differently, e.g. intercultural competence (Knapp & Knapp-Potthoff, 1990; Volkman, 2002, from the foreign language teaching perspective), intercultural communication competence (Chen & Starosta, 1996) and

intercultural sensitivity (Bennett, 1993; Hammer & Bennett, 1998) by scholars in communication studies or intercultural communicative competence (Byram, 1997) from an educational point of view with a special focus on the European foreign language classroom.

Most concepts of intercultural learning include an attitudinal or affective component (Abendroth-Timmer, 1998). The focus of the present paper is on the attitudinal component in telecollaborative environments where foreign language learners engage in computer-mediated intercultural communication, in this case mostly by e-mail.

Data has been drawn from three e-mail exchanges. Three different classes at a vocational school in Mainz, Germany exchanged e-mails with two groups of US-American undergraduate students of communication at a public university in Ohio and one group of undergraduate Japanese students of English. These exchanges took place between 2001 and 2002 on a one-to-one exchange basis. Additionally, preliminary findings from a telecollaborative seminar with US-American undergraduate students of communication at a Midwestern University and undergraduate teacher students at a German University of Education were used to support the data. The seminar took place in 2004.

The main question to be addressed in the paper is whether attitudinal components of intercultural communicative competence can be measured quantitatively in telecollaborative environments. Byram's (1997) model of Intercultural Communicative Competence (ICC) represents the theoretical basis of this paper.

## **2 Attitudinal factors in different concepts of intercultural competence**

As mentioned before, most concepts involving intercultural competence have an affective component that summarises e.g. attitudes. However, the terminology for labelling the affective dimension differs to a considerable extent. In some cases, it is called cultural or intercultural awareness whereas in others, sensitivity or attitudes are the terms used, which leads to confusion because the same terms are used to refer to different ideas. The models of Intercultural Sensitivity (Bennett, 1993) and of Intercultural Communication Competence (Chen & Starosta, 1996) will be briefly outlined before presenting in more detail Byram's (1997) ideas of attitudes in the framework of the Intercultural Communicative Competence model.

### ***2.1 Developmental model of intercultural sensitivity***

In Bennett's (1993) Developmental Model of Intercultural Sensitivity (DMIS), the term sensitivity is used to describe a comprehensive concept of intercultural competence. Hammer, Bennett and Wiseman (2003: 422) define sensitivity as "the ability to discriminate and experience relevant cultural differences". The model is based on the underlying assumption that a person's competence in intercultural relations increases as the experience of cultural difference becomes more complex and alters a cultural worldview. The model is developmental in nature with six stages of cultural orientation, each representing a particular worldview structure. A fundamental distinction is made between ethnocentric and the ethnorelative stages. However, Bennett (1993) underlines that the progression through the stages is not necessarily one-way or permanent;

progression can even be reversed. The phases range from the stage of Denial in which one's own culture is perceived as the only real one, through the Minimization Phase in which human universals rather than cultural differences are stressed, to stages of acknowledgement, acceptance and integration of cultural difference. To measure intercultural sensitivity, Hammer and Bennett (1998) have developed an instrument called the Intercultural Development Inventory (IDI); however, the separation of the cognitive, affective and behavioural components is not clear due to the multidimensional character of the developmental stages (Bennett 1993: 26) and therefore not suitable for an attempt to isolate the attitudinal component of Intercultural Competence. Bennett also suggests a tentative sequence with initial development understood as cognitive, and affective and behavioural reactions that follow and bring each other about in subsequent phases. This view clearly differs from other conceptualisations where knowledge and attitude factors are seen as preconditions of intercultural competence (e.g. Byram, 1997).

### ***2.2 Intercultural communication competence***

The term sensitivity or intercultural sensitivity forms part of Chen and Starosta's (1996) concept of intercultural communication competence, and is used to describe the affective component of that concept. Chen and Starosta (1996: 358) define intercultural communication competence as "the ability to negotiate cultural meanings and to execute appropriately effective communication behaviors that recognize the interactants' multiple identities in a specific environment." The procedural model of intercultural communication competence can be explained from affective, cognitive, and behavioural perspectives. Intercultural sensitivity is influenced by four personal attributes, namely self-concept, open-mindedness, being non-judgemental and social relaxation.

The cognitive basis of intercultural communication competence refers to intercultural awareness, which in turn consists of self-awareness and cultural awareness. Both are presented as cognitive processes, the individual's ability to be aware of him- or herself, and an understanding of cultures affecting people's ways of thinking and behaviour.

The behavioural component of the model is called intercultural adroitness, which stresses appropriate actions in intercultural communications, in other words communication skills. Communication skills are believed to consist of message skills, appropriate self-disclosure, behavioural flexibility, interaction management, and social skills.

Chen has developed an instrument to assess intercultural sensitivity, named the Intercultural Sensitivity Scale (ISS), which was also used for computer-mediated intercultural communication (Chen, 2000). Chen attempts to assess the affective component in a telecollaborative environment using the framework of his Intercultural Communication Competence concept and corresponding assessment instruments but he criticises the validity of the research, suggesting concentrating on the cognitive component of the concept instead for further research.

### ***2.3 Intercultural communicative competence***

Byram (1997) suggests a model of ICC that is geared towards the foreign language learner. It takes into account a communication situation which is not only characterised

by interlocutors from different cultural settings but also by at least one interlocutor who uses a foreign language to get his or her message across. Byram's model has been selected as the theoretical basis of the paper for various reasons. First, it is widely operationalised and has been put into practice (Byram, 2001) as well as applied in research (e.g. Müller-Hartmann, 1999; Belz, 2003; O'Dowd, 2003). Second, it addresses intercultural communication and learning in an educational context, in which the present paper is also located. Third, it accommodates numerous aspects of computer-mediated intercultural communication in educational foreign language learning environments.

According to Byram (1997) linguistic competence, sociolinguistic competence, discourse competence and cultural competence constitute Intercultural Communicative Competence (ICC). The cultural competence component comprises attitudes, knowledge and skills, expressed in terms of five *savoirs*.

*Savoir être* refers to attitudes of curiosity and openness and the willingness to challenge one's own meanings and behaviours as well as the willingness to value those of others. Byram views positive attitudes as a precondition for successful intercultural interaction, although he argues that this is not enough. They need to be attitudes of curiosity and openness with a readiness to suspend disbelief and judgement with regard to others' meanings, beliefs and behaviour. Also, a willingness to suspend belief in one's own meanings and behaviours is vital in order to be able to analyse others' viewpoints from their perspective. A reflective and analytical challenge is called for to suspend belief in one's own and value others' beliefs or behaviours. Attitudes are interdependent with other factors constituting intercultural communicative competence, but the precise nature of the relationships between cognitive and affective domains remains unclear (Byram *et al.* 1994: 39).

*Savoirs* comprise knowledge of social groups in one's own and the interlocutor's cultures and knowledge about processes of interaction. *Savoir comprendre*, the skills of interpreting and relating, and *savoir apprendre / faire*, the skills of discovering and interacting, constitute the domain of skills. The skills of discovering and / or interacting represent the ability to recognize significant phenomena in a foreign environment and to elicit meanings and connotations from them, whereas the skills of interacting mean being able to interact with particular interlocutors and to manage constraints of time, mutual perceptions and attitudes in a given situation. The skills of interpreting and relating refer to the ability to draw on existing knowledge and elicit meaning from a phenomenon, e.g. a document. *Savoir s'engager* refers to critical cultural awareness, more specifically the ability to evaluate critically cultural practices and products in one's own and other cultures.

Byram's notion of attitudes within his model will be outlined as learning objectives (Byram, 1997: 91ff.). The attitudes component comprises several learning objectives. First, a "willingness to engage with otherness in a relationship of equality" is mentioned (*ibid*), more precisely an interest in daily life and the daily experience of the interlocutor. Attitudes also have to do with shifting perspectives, namely the "interest in discovering other perspectives on interpretation of familiar and unfamiliar phenomena in both one's own and other cultures and cultural practices" (Byram, 1997: 92). This objective stresses the necessity of discovering the other's understanding of cultural phenomena. The learner is led to assume that cultural practices or behaviours are not understood in the same way, in other words empathy is needed. Being ready to shift

perspectives by critically reflecting on one's own cultural background is represented by the "willingness to question values or presuppositions in cultural practices and products in one's own environment" (*ibid*). The intercultural speaker actively seeks the other's perspective and chooses their interpretations or evaluations for phenomena in his or her own cultures.

It appears that the three above-mentioned objectives are hierarchical since they require an increasingly complex world view and a growing willingness to decentre as well as a growing capacity for empathy. The following two objectives described by Byram apply to periods of residence in other cultural environments and differ from the first three in that respect and in terms of possible assessment methods, since evidence for these objectives is not directly observable (Byram, 1997: 93). The "readiness to experience the different stages of adaptation to and interaction with another culture during a period of residence" (*ibid*) means that the intercultural speaker can gradually cope with different kinds of experience of otherness and that he or she is able to reflect on experiences and affective reactions to otherness.

"Readiness to engage with the conventions and rites of verbal and non-verbal communication and interaction" (Byram, 1997: 94) refers to the interlocutor noting and adopting specific behaviours that are commonly used in the respective social group but at the same time displaying a sensitivity for appropriateness, bearing in mind one's own otherness and finding a balance of adaptation and keeping one's distance as an outsider.

### 2.3.1 Telecollaboration

Byram's learning objectives about attitudes will be applied to telecollaborative environments in educational contexts. Telecollaboration is defined by Ware (2005: 64) as "a form of network-based language teaching that links students using Internet-mediated communication tools". E-mail projects and communication as a form of telecollaboration have been studied by scholars for some time now. Aspects that have been explored in studies centre around intercultural communication itself, the role of tasks and the role of teachers. The potential of computer-mediated intercultural communication for intercultural learning was explored by O'Dowd (2003) who attempted to identify characteristics of an e-mail exchange that are conducive to developing intercultural competence in his study of five Spanish-British dyads. Vogt (2001), in her study of an electronic exchange between four German upper-secondary EFL classrooms with other EFL learners from Thailand, South Korea and Japan, questions the assumption that intercultural communication in e-mail projects automatically leads to intercultural competence, in particular to positive attitudes.

Similarly, Ware (2005) analyses the factors that contribute to limited interaction in her study of twelve German undergraduate students and their nine US-based counterparts. Belz (2003), in her case study of one US-German dyad, identifies differences in communication patterns leading to tensions in the communication process and impeding the intercultural learning process. Müller-Hartmann (2000) analyses the role of tasks in three e-mail projects, his findings confirming the importance of a task-based approach for telecollaborative projects which aim at initiating intercultural learning processes. Müller-Hartmann and Belz (2003) present a piece of teacher research in their study of a telecollaborative project between a group of undergraduate students based in Germany and a group of undergraduate students of German at a US university, finding that socioinstitutional factors had an impact on teacher agency in the telecollaborative partnership.

In the following section Byram's (1997) learning objectives for the attitudinal component of ICC will be used as an underlying concept in order to attempt an answer to the research question of how you can assess and / or describe the development of attitudes with learners in e-mail exchanges.

### **3 Assessing attitudinal factors in computer-mediated communication**

#### *3.1 Outline of the study*

In order to illustrate points and to support arguments, data has been taken from a study that analysed three e-mail exchanges. From September 2001 to December 2002, three groups of German upper-secondary pupils at a vocational school in Mainz (n=64) were partnered with students from two undergraduate communication courses at a public Midwestern US university (n=57) and a group of undergraduate students of English at a Japanese university in Tokyo (n=30). The exchanges took place on a one-to-one basis. Participants had an average age of 16 to 20 (German partners) and 21 years (US partners and Japanese partners). With all German pupils in the study having English as a major subject, English was used as the language of communication. The e-mail projects were fully integrated into the classroom, i.e. class time was devoted to activities related to the project, such as discussions of the content of e-mails, analysis of language aspects and the collaborative product. General topics to be discussed were provided by the instructors but own choices, e.g. regarding subtopics, were possible. German pupils wrote interaction journals whose aim was to help learners reflect on their experiences and thoughts in the course of the exchange. The US students put down their reflections in an analysis paper at the end of the project. The Japanese students did not use introspective instruments but researched a cultural topic collaboratively, so there is no corresponding data. The partners wrote e-mail messages to each other about once a week during a period of approximately three months. In the course of the exchange classroom activities supported the negotiation of meaning process, e.g. by reflecting on critical incidents or making an information quilt, i.e. a wall chart on which pieces of information are put together by the learners to form a sort of quilt. Photos and parcels were sent to the respective partners where it was possible.<sup>1</sup>

The body of the data comprises 1073 e-mail messages, with 363 from the German-Japanese exchange and 710 from the two exchanges with the USA. Messages were summarised and content-analysed several times, using qualitative content analysis following Mayring (1999). 57 US analysis papers and 64 German interaction journals function as introspective research instruments. Selective transcripts of 19 lessons from the German classroom were used to integrate the local perspective and relate it to the intercultural communication process. Six longer and thirteen shorter sequences were chosen according to their relevance for the research questions, then the contents were analysed and categorised.

#### *3.2. Tracing attitudinal developments in telecollaboration: procedure*

In the following section the instruments and methods used in the study are outlined and

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1. Participants were asked for their consent to data being used for research. All names have been changed.

discussed with regard to the assessment of attitudes in computer-mediated intercultural communication by e-mail. Assessment instruments and methods include qualitative content analyses of e-mails, analysis of critical incidents in computer-mediated intercultural communication, essays, interaction journals and combinations of several instruments.

Qualitative content analysis typically considers the context of text components, takes into account latent meanings, integrates striking individual cases and incorporates interpretations of elements not directly observable in the text (Mayring, 1995, 1999).

Mayring's (1999) approach to qualitative content analysis consists in the development of a system of categories on the basis of text material. The material is dissected and analysed in a sequenced procedure. In our case, data analysis procedures largely followed Mayring (1999) but were analysed using a blend between expatiating and structuring analysis. E-mails as well as US analysis papers and interaction journals from the German-American projects were exchanged and analysed by the German and US instructors. The German and US instructors compared findings by categorising findings from the data and comparing and discussing categories for analysis to ensure inter-rater reliability. After summarising the text material, ambiguous or unclear passages were made comprehensible by supplementary data, e.g. from the partner's e-mails or by follow-up interviews conducted with the subject in question. Only relevant extracts of the abundant text material were chosen for subsequent analysis (see also Lamnek, 1995: 209). The material was then analysed and structured with regard to observable instances of implementation of Byram's (1997) learning objectives concerning attitudes. While Mayring outlines three different ways of structuring the material, namely topics and contents, recurring or striking characteristics, and using an ordinal scale, the focus in this study was on contents that represent an observable instance of

- a. the willingness to engage with others in a relationship of equality;
- b. the interest in discovering other perspectives of phenomena of one's own and other cultures;
- c. the willingness to question values or presuppositions in cultural practices and products in one's own environment;
- d. the readiness to experience the different stages of adaptation to and interaction with another culture during a period of residence;
- e. the readiness to engage with the conventions and rites of verbal and non-verbal communication and interaction.

Thus, the underlying theoretical model was Byram's model of ICC and more particularly its attitudinal component. The analysis of the data was undertaken in light of the research question of how you can assess and / or describe the development of attitudes with learners in e-mail projects.

### 3.3 Results

#### 3.3.1. Analysis of e-mails

Implementation of objective (a), the willingness to engage with others in a relationship of equality, can be specified by an interest in the partner's daily life and daily experience (Byram, 1997: 91ff.). This interest can be inferred from the detailed questions which partners ask each other, more particularly those that go beyond superficial questions



about favourite music or family size. Follow-up questions developing from a conversation are also indicative of real interest, as this example taken from the German-Japanese exchange illustrates:

(...) Is it right that the “Comming-aged-day” is the border between being a child and becoming an adult? At what age are you an adult in Japan?  
I liked what you said about “KIMONO” and “YUKATA”. Do these clothes looks like real traditionell clothes? (...)

The dyad had talked about an upcoming festival in Japan, the coming-of-age day which is celebrated when young people turn 20. Having had to guess its meaning, the German partner asks for further explanation of the concept by asking specific questions and commenting on previous information provided, thus proving her vivid interest.

The willingness to engage in a relationship of equality means that partners take part in a symmetrical communication situation with both interlocutors enjoying equal status. Ayse, a Turkish-German participant, exchanges views on arranged marriages in both cultural environments.

The concept had been discussed in the local classroom, and a few pupils had a very marked opinion about arranged marriages in general, which they voiced openly and partly in a pejorative way. Ayse, in her answer to her Japanese partner, tries to meet her partner at eye level.

(...) Of course, I hope love marriage, too. Some young people in Turkey couples [had a sort of] arranged marriage. For example my mum and my dad [had an] arranged marriage, but later they fell in love. I think they spent a very happy time together. They were married for 20 years, but last year my father died. In comparison to other marriage partners, who love marriage they had a good marriage, because the other partners get divorced after 10 years. I think, we cannot speak about arranged marriage [deprecatingly].

All German people [prefer] love marriage. I [haven't heard of] anyone who arranged [a] marriage [in Germany].

She states her preference but not without giving an instance of an arranged marriage in her own family. She points out the advantages and clearly states her opinion that you should not condemn arranged marriages *per se*.

Objective (b), the interest in discovering other perspectives of phenomena of one's own and other cultures (Byram, 1997: 92), is specified in the learner's assumption that phenomena are not universally understood and the necessity of discovering the other's understanding of them.

When explaining cultural phenomena, partners generally display empathy and assume that their interlocutors are not familiar with them, so in this sense they do not take for granted their familiarity with cultural concepts. However, a willingness to inform their partners about their own phenomena or practices can be discerned as a recurring element. The willingness to discover different perspectives is mostly expressed in questions such as “What do you think about that?”, “Is it true that Americans move a

lot?" to elicit the partner's personal response to a phenomenon related to their own or the partner's cultural environment. Also, interlocutors comment on cultural phenomena or information provided by their partners, for example "I think that you have an advantage because in America you can do your driver's licence with 16" when partners discuss the topic of age regulations for driving, voting and consuming alcohol. In a number of cases, interlocutors asked their partners to confirm information they had gathered about the other's culture(s) and, thus soliciting their partner's perspective, e.g. "I heard that many Japanese work a lot and a lot of [people] die [because of excessive labour]. Is this right?"

The willingness to question values or presuppositions in cultural practices and products in one's own environment (Byram, 1997: 92) is specified as the willingness to shift perspectives in that the interlocutor chooses the other's interpretation or evaluation of his or her own cultural phenomena. In the data available, critical reflection on one's own cultural phenomena is to be found, although the desire to provide factual information prevails. The willingness to question values or presuppositions in cultural practices and products in the partners' own environment is represented in quite a few instances, but in general there is no real integration of the other's perspective. A typical example of this is Caroline's mail to her partner from Tokyo in which she criticises some people's attitude towards work from her own perspective:

(...) In Japan, are there a lot of unemployed people? Generally the unemployment in Germany [is caused by] lacking mobility! For example: In the USA a household move[s] about ten times (...) because of finding a job! I think at this example you can see one quality of German people: the Leisure! I think the people in Japan are very busy? (...)

She expresses her dissatisfaction with the unemployment in her environment and self-critically analyses reasons, at the same time contrasting them with the Japanese as she imagines them, so she anticipates her partner's reaction and criticises the attitude towards work and leisure in her own environment. In other cases, an 'outside' interpretation of phenomena in the interlocutor's own environment is made more explicit but still rather related to critical views. Here is an example from Ohio, the interlocutor asking for his partner's opinion on the matter but at the same time trying to illuminate others' perspective:

(...) Is there [a WalMart] near you , and what is your thoughts on it? Don't worry I will not be offended by anything you think or say about the WalMart or the US for that matter. I can easily see how other countries would be offended by the US, the United States. Sometimes companies believe there formula for success can be used anywhere and try to push it on other countries, i.e. WalMart. And then other countries are upset at Americans. (...)

A development of positive attitudes is difficult to trace, particularly the transition from the willingness to discover (uncritically) other perspectives to the willingness to question one's own values or presuppositions, which involves the ability to reflect on one's own values. It is necessary for interlocutors to become aware of

phenomena related to their own particular culture, of potential discrepancies between perceptions and of a disposition and courage to put to discussion their view on phenomena. In our data, operationalisations of objectives (a) and (b) were more frequently found than of objective (c) in e-mail communication; however, one should be cautious in speaking of a development because there are not enough instances in the data which are indicative of “progress” in developing attitudes of openness and curiosity.

### 3.3.2 *Critical incidents in computer-mediated intercultural communication*

One alternative way of describing observable attitudes of participants is the analysis of critical incidents. According to Cushner and Brislin (1996), a critical incident involves a situation about cross-cultural misunderstanding. In computer mediated intercultural communication, it also represents a potential threat to the success of the communication situation which cannot be repaired quickly, e.g. by non-verbal hints like facial expressions or a quick request for clarification. Critical incidents have been used as a teaching tool in the ESL classroom, e.g. Stakhnevich (2002), and as a testing tool to measure intercultural sensitivity based on Bennett’s (1993) model (e.g. Göbel, Hesse & Jude (2003)). Arthur (2001) describes critical incidents as a research method for tracking cross-cultural transition experiences with individuals, albeit with a different application. In computer-mediated intercultural communication, analyses of critical incidents give insights into interlocutors’ attitudes whenever they are observable. One example to illustrate this point is taken from the exchange between a Moroccan-German pupil and an African-American student from Ohio. The African-American student had enquired about black people in Germany and particularly in her area. In her answer, the Moroccan-German partner writes:

In my town where I live (Wiesbaden) is a barrac where black (american) people live, so there are lots of black. But I am not allowed to chill out with them... I have a big brother and sometimes he looks that everything is going well with me because there are some dark points in my past... so he said the ghetto people are nothing for me...but in spite of that I know some black people...

She does not distance herself from her brother’s statement so that it conveys the impression that she equates African-American citizens with “ghetto people”, people of low socio-economic status. The attitude that may be inferred is one of superiority or at least she gives evidence of extreme thoughtlessness. The situation did not escalate because her partner chose to ignore the remark due to their previously good relationship and due to the fact that he had experienced her as being very frank in a positive way, as we can gather from the essay data. This was an isolated incident and having analysed the complete e-mail exchange, the pupil in question did not blunder repeatedly. However, repeated variations in the course of an e-mail exchange offer valuable clues to the development of attitudes. In terms of criterion-referenced assessment, critical incidents or analyses of those could be used as assessment instruments. Further applications of critical incidents as testing tools are feasible, e.g. in the classroom, but these are outside the scope of this paper (see e.g. Wight (1995) for an overview of applications in training and testing).

### 3.3.3 Essays

Byram (1997) holds that the assessment of Intercultural Communicative Competence cannot exclusively be done by psychometric objective tests because the test results do not always indicate whether a learner has met an objective, since the objectives defined by Byram for each *savoir* are not always observable. Therefore he suggests more complex methods, such as complex essay tasks, self-introspective or process-related methods such as a portfolio.

Depending on the task given, essays can function as introspective methods because they can make learners reflect on experience, and this includes intercultural experience. Therefore they are a suitable instrument for making internal developments explicit. Faccioli and Kjartansson (2003), however, object that with foreign language learners, the language ability is more often than not considered as more important than the reflection on intercultural learning or developing or changing attitudes. Research undertaken by Byram *et al.* (1994) on essays written in French as a foreign language on aspects of French culture confirms that other categories than cultural aspects are relevant for marking purposes. When essays are used to describe attitudes as a component of Intercultural Communicative Competence, it must be clear to learners and assessors alike that the focus is on intercultural aspects, not the assessment of logical skills or linguistic aspects.

The following examples have been drawn from the analysis papers written by US students at the end of the exchanges. They have been related to and analysed in view of Byram's learning objectives. In her analysis paper, one student discusses her difficulties in e-mailing her partner and justifies the resulting lack of frequency of e-mails going back and forth:

It became hard to communicate with the email partners at times because of our different school schedules. When we were in session they were in school and vice versa so that led to some long periods without communication. Also it seemed that many of the students did not have a lot of access to computers at school or in their homes. This made things difficult when they could only email at certain points. As well this also let me inside their culture and helped me to understand that not everyone has access to computers at home in this country. I tend to forget that not all people everywhere have the same things that we have here. While Germany is better than most, it is not the same as the US as far as technology in the home. (...)

In this particular instance, the student displays a biased view; a follow-up interview with the learner that was carried out by the US instructor corroborated this assumption. She considers herself to be superior in this technological aspect and therefore does not demonstrate a willingness to engage with otherness in a relationship of equality, so objective (a) (Byram 1997: 91) would not be achieved. She also attributes a single incident (difficulties in reaching her e-mail partner who actually had internet access at home) with one individual to a group of people; this generalisation runs the risk of becoming a stereotype.

In the following example, the US partner writes about his attempts at very detailed explanations for cultural concepts:

I did not feel that I could just use a one-sentence explanation like [for] someone in the US."

The partner assumes that cultural phenomena are not understood in the same way (objective b), that they are not self-evident but have to be presented in detail. He anticipates that his partner could have a very different perspective from which things are understood and that his own view is influenced by cultural norms and values. Therefore his statement can be taken as evidence of a willingness to discover other perspectives of phenomena in his own cultural environment.

One student reflects on the extent to which her intercultural experience has led her to question and change her own values in cultural practices in her own environment (Byram's objective c), in this particular case her way of approaching people after her intercultural communication experience.

Each of the people I have been interacting with this year have really made me examine how I approach people. I am a touchy-feely type of person and not all cultures find that acceptable. (...) I did notice some changes of my communication styles. At first I did not think I did change. When I now consider how I treat my international residents now compared to the beginning of the year, I do see some differences. I am more conscience of when I touch people and try to ask for hugs, rather than just give them. (...)

This particular student has a job as a Residence Advisor in student halls and has regular contact with international students after the end of the course. In this case, the e-mail partnership was accompanied by encounters with international students on campus as part of the course assignment. The student's statements make clear that she is not only willing to question her own practices when it comes to physical contact with or forms of address for intercultural interlocutors but she has already taken action and has revised those practices. This would not only mean a development in attitudes but also in skills; however, it would be difficult to isolate the attitudinal component from the skills component. The skill of interaction in Byram's model (1997: 38) presupposes both knowledge and attitudes and so this seems to be a stage of development that is quite advanced.

To retrace the development in terms of attitudes would be difficult, since the analysis paper as an essay has a retrospective character and does not reproduce the individual stages. This is one of the shortcomings of essays as introspective methods in assessing and describing attitudes. They represent a personalised approach in that they reflect the view of one interlocutor in the communication situation but do not necessarily reconstruct the procedural character of the interaction. As retrospective instruments, essays help to describe and assess the outcome of an interaction at a certain point after the exchange. The process of the interaction can generally not be fully reconstructed.

### *3.3.4 Interaction journals*

According to McDonough and McDonough (1997), diaries are personal, record an unlimited number of facets and allow the writers to structure, formulate, and react to an experience as the record is written. The experience is therefore available for reflection and analysis (1997: 122). Holly (1984) differentiates between logs as records of factual information, diaries as containing mainly subjective text, and journals that contain both 'objective' and 'subjective' data.

For the present study, the term journal was used because the learners divide the entry into a descriptive part that is more factual, and a reflective part in which they relate their impressions, thoughts and feeling concerning their intercultural interaction. The journal also aims at the interactional character of the communication situation. It is a way of structuring experience of and reflection on otherness and therefore is a help for learners to focus on those aspects.

Diaries or journals are seen as a suitable vehicle for process research; moreover, affective factors, among others, can be revealed which cannot be observed by tests or experiments (McDonough & McDonough, 1997). They are criticised for their lack of reliability and validity, although triangulation of data is suggested as a way out. Sercu (2002) recommends journals as teaching tools to develop the learners' capacity for reflection.

The advantages of interaction journals in computer-mediated intercultural communication are numerous. They provide a personalised approach like introspective essays but take a longitudinal view of the intercultural learning process. This process-oriented quality can help describe and assess attitudes at several points of the exchange, thus trying to retrace a development.

In the following section, the examples taken from interaction journals are related to Byram's learning objectives. The first example can be seen as an instance of the willingness to experience the daily life of other cultures and to try to establish a relationship of equality by sharing and responding to experiences of the interlocutor. Diana notes down her impressions after getting mails from her two partners from Ohio on 12 September 2001:

He wrote a lot about the massacre of the World Trade Center in the USA. I saw the news before, and so it was very intersted to see someone's opinion who is related to this happening. He was very sad and also angry. He wrote that his younger brother could be murdered. It was very hard to read that some of his family members had to be evacuated.

She shows a vivid interest in first-hand experience of the terrible event and commiserates with him on the potential danger for his family. The same attempt to share feelings is made with her second partner:

She also told me a lot of things about the tragedy. She said that she couldn't believe it and she is also very sad. She told me that she has the feeling that it will soon escalate into something worse. And when I now think about it, yes she is right.

On 14 November 2001, a plane crashed in New York again, making the general public fear the worst about new terrorist attacks.

D. talked about the other plane crash. She was very upset, but she was assuming that it was no terrorism. It must be terrible to live there at the moment. All the people are scared and sad. I hope all this will stop soon.

Diana still shows a vivid interest and attempts to view things from her perspective. You can discern a willingness to see things from the other's perspective, but a genuine shift

of perspective or the perception of a necessity for different perspectives as in objective (b) obviously does not take place because she sympathises with her partner and her partner's environment but there is no instance of a sustained shift of perspective.

A tentative effort to take the other's perspective to explain phenomena in other cultures is represented in Zehra's discussion of weddings. Her US-American partner had talked lengthily about her brother's wedding that was coming up. Zehra puts down her reactions and particularly comments on her partner's excitement:

Finally B. told me what was going on with the wedding of her brother, Well, she seems to be excited due to this wedding. Perhaps such an event is in the USA more important than in Germany.

In this case Zehra tries to explain a cultural practice, a wedding, from the other's perspective by suggesting that the reason why her partner is so excited and writes so much about the wedding is the significance of the phenomenon, which she supposes to be higher than in her own cultural environment. She adds "I don't know" to show the tentative nature of her explanation.

The willingness to question values or presuppositions in cultural practices and products in one's own environment becomes apparent in Leyla's entry in her interaction journal. She and her US partner had talked about the legal age for drinking in the US being 21 years, and this leads Leyla to comment on a cultural phenomenon in her own cultural environment, namely teenage binge drinking.

I think that law [would be good] in Germany. In my opinion people in the age of 16 or 17 drinks too much without seeing the consequent. Some people in Germany think that they cant have a party without alcohol. They argues they cant have fun without alcohol. But in my opinion that is a completely silly argument.

In her entry, she displays a willingness to choose an interpretation of the cultural phenomenon of teenage binge drinking by thinking through the potential benefits of legislation for alcohol consumption modelled on the USA.

The data drawn from pupils' interaction journals does not yield any insights into attitudes connected with objectives (d) and (e), the readiness to experience the different stages of adaptation or interaction during a period of residence and the readiness to engage with conventions of interaction. It would be a premature attribution if we said that the pupils have not developed these capacities yet; it may also be possible that their attention was not focused on the developmental aspect of an interaction. Evidence of the two objectives could not be found in the data available. In the data drawn from the exchange between student teachers from Heidelberg, Germany and students of communication from Bowling Green, OH, USA, an instance of readiness to engage with conventions of interaction can be found, more specifically sensitivity towards the expectations of others about appropriate behaviour (Byram, 1997: 94). Attention has to be drawn to the fact that this is only a preliminary finding as the data has not been systematically analysed yet.

Britta's US exchange partner is a student whose husband, a soldier, was serving in Iraq at the time of the exchange. On finding this out, Britta has numerous questions

about her personal view on the war since her partner is personally involved in it. In her interaction journal, Britta ponders the risk of offending her partner by asking too many personal questions or taking too firm a stand:

I think it is very interesting that T.'s husband is serving in the war in Iraq. I already have a lot of questions:

- (a) How does she think about the situation (the war) when even her husband is there?
- (b) Does she think it is worth to risk her husband's life for the war?
- (c) Is the war in her opinion a success? Does she think the US government behave in the right way?

Nevertheless, it is a difficult situation because I really do not want to offend her with my opinions about the war. (...)

Apart from showing a keen interest in everyday life and trying to see things from her perspective she also displays a sensitivity towards her partner's expectations of appropriate communication topics at the beginning of a relationship. Therefore she weighs up her marked interest in her partner's first-hand experience and views it against the consequences of potentially offensive questions and comments that are too personal at this point of the exchange.

So far, attitudes in interaction journals have been described at certain isolated points of the interaction. The following example attempts to trace a development of attitudes in the course of the communication. Sabine writes in her first entry: "It was very interesting to read how she lives and what she has done as a kid and what she wants to do now." and therefore shows her willingness to engage in interaction and her interest in detailed experiences such as her partner's childhood memories in Brunswick, USA. The second entry comments on her partner's thoughts about the terrorist attacks in September 2001 and displays not just a superficial interest but also a readiness to discover other people's feelings: "I think this was a very seriously mail and it was interesting to read what American people feel and what meanings they have. This mail makes you think (...)." The third entry demonstrates her sustained interest in her partner because she is interested in building a real, personal relationship in the course of the encounter:

She is really friendly and I hope our exchange goes on after the project and so I asked M. if she wants to keep e-mailing with me and I hope she will say yes.

After some weeks, commenting on the topic of church and religion, Sabine writes:

I didn't know that the differences between the American and German churches were so big. It must be interesting to be in such a service like these ones.

She has not quite reached objective (b), assuming that phenomena are not understood in the same way, but she is made aware of other phenomena; by saying it would be interesting to take part she expresses a readiness to discover other perspectives, which is related to an open and curious attitude. So a development can be traced in her attitudes



but we cannot presume without further analysis to what extent Sabine has developed these attitudes during the exchange and to what extent they are part of her personality. This question would need further research.

### *3.3.5 Combination of instruments*

A combination of the above-mentioned instruments is useful for reconstructing the complete interaction and for taking into account the actual e-mail communication as well as the thoughts, feelings and reflections that both interlocutors associate independently of each other. In this way insights into the communication situation are possible which are not always observable from the e-mail communication. Furthermore, a combination of instruments helps to trace a development of attitudes in a more precise way since several variables are considered.

The following example from one of the German-American exchanges illustrates this point. Melanie came out as a lesbian, and this disclosure was not acknowledged in her German partner's mails. Melanie did not feel that her partner was willing to establish a relationship of equality and engage in communication with her, so she was feeling insecure as to how to respond to her partner's non-reaction. Throughout their e-mail interaction the topic of her disclosure was not explicitly discussed. The German partner therefore did not develop a willingness to consider the phenomenon from her partner's perspective and did not show empathy as to how her partner would feel. A follow-up interview with the German partner revealed that she understood the disclosure but chose to ignore it because she thought it was not relevant. In the course of the interaction, the German partner does not undergo a development in attitudes, which can be seen from the interaction journal. She does show an interest in daily life and personal accounts, e.g. of the terrorist attack in the US and her partner's immediate experience:

But if you can communicate with somebody who get impression from the land where this happened you can feel with them more and more.

As I said before, it's always interesting to hear what has happened in the US after the happenings from the World Trade Center. How the people live with the situation and how their feelings are.

However, she does not feel it necessary to discover her partner's point of view regarding her otherness, i.e. her disclosure and her perspective as a lesbian, which clearly differs from her own. She nevertheless evaluates the exchange positively because it is stimulating for her: "You learn about another country, things and questions come to your mind".

Melanie's perspective becomes clear in her analysis paper, the introspective instrument used in the USA. She does not rate her exchange as successful because of her partner's failure to discover and acknowledge her own perspective and to act appropriately. Melanie voices her disappointment that her disclosure did not yield an acknowledgement. In this case, integrating several instruments disproves the seeming success of the interaction, and a lack of development can be traced which might have remained hidden otherwise.

So in trying to describe instances of achieved learning objectives with regard to the

model of ICC, one can discern participants' interest in their partner by asking detailed questions and follow-up questions developing from a conversation. An interest in different perspectives is evident in e-mail conversation through a willingness to tell partners about their own phenomena and to invite them to comment. The willingness to question values or presuppositions is manifested by the participants' desire to provide factual information about their own phenomena. However, in some instances a willingness to question one's own values is observable but no real integration of the other's perspective ensues. In the e-mail data, more operationalisations of the first two learning objectives can be discerned. Critical incidents may function as clues to the development of attitudes.

Due to their retrospective character, essays reconstruct the procedural character of an interaction to a lesser extent than interaction journals. In both data sets, however, instances of similar objectives were to be found. While operationalisations of objectives (a) to (c) could be found in the data, instances of objectives (d) or (e) were not. This is partly due to the mediated character of the interaction and the fact that partners remain in their habitual cultural environment while engaging in intercultural communication. Contact is limited and mediated.

Being procedural in nature, interaction journals allow the researcher or teacher to trace developments. A combination of instruments, however, could achieve a more reliable analysis of the complete interaction on both sides and could greatly help teachers in evaluating their learners' progress. Similarly, Henerson *et al.* (1987: 37) suggest a variety of methods in order to evaluate attitudes if attitude objectives constitute an important part of an educational programme.

#### 4 Conclusion and outlook

The purpose of this paper was to discuss the question of measuring and assessing attitudes in computer-mediated intercultural communication. Based on Byram's model of Intercultural Communicative Competence, learning objectives for attitudes were summarised and analysed with regard to computer-mediated intercultural communication in e-mail projects. Specifications and implementation of learning objectives were then applied to data from three e-mail exchanges. Different instruments to describe and assess attitudes in CMIC were put to discussion on the basis of Byram's criteria for learning objectives in this field. A triangulation of instruments was argued for, in order to cater for the multiple variables in interaction and in the description and assessment of attitudes.

Regarding the initial question of measuring attitudinal factors in computer-mediated intercultural communication, the question remains open as to how to quantify attitudes in telecollaboration. Henerson *et al.* (1987) put forward that attitude is an abstract construct. Therefore it is only possible to infer that a person has attitudes by observable data such as words and actions (1987: 12). Measuring attitudes directly is impossible, a conclusion which the findings from the present study corroborate. However, the instruments outlined above may help teachers to describe evidence of attitudes in interaction, and trace developments where possible. These procedures are probably more helpful in a classroom evaluation situation than the suggestions put forward by Byram (1997: 105). He recommends the assessment of descriptions of performance to

be assessed against descriptions of what is satisfactory performance. This suggestion is not really viable for open assignments such as e-mail projects since it would be next to impossible to provide detailed descriptions of satisfactory performance for all potential situations.

Attempts to scale ICC have been made, e.g. in the Swiss research project that also helped create scales for the Common European Framework of Reference but were unsuccessful (e.g. Schneider & North, 2000), and the cultural component of plurilingual and pluricultural competence currently seems to be considered in terms of self-assessment in the European context. However, if intercultural competence including an attitudinal component is (rightly) considered as a vital part of language teaching and learning, learners would need at least some expert feedback on their progress in this respect. Even if a direct measurement is impossible, teachers are still responsible for providing this feedback, and the instruments described above may help them to trace developments and progress with regard to intercultural competence, including the attitudinal component.

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