Promoting learner autonomy through multiliteracy skills development in cross-institutional exchanges

PROMOTING LEARNER AUTONOMY THROUGH MULTILITERACY SKILLS DEVELOPMENT IN CROSS-INSTITUTIONAL EXCHANGES

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This contribution presents findings from two empirical case studies, which followed a task-based telecollaborative learning format. Participants included student teacher trainees, tutors, [1] and language learners from colleges/universities in Germany, Poland, the United Kingdom, and the United States. The projects aimed at promoting learner autonomy through awareness raising of modes and meaning-making online and multiliteracy skills development based on hands-on analysis of web resources and social networking tools.

It was hoped that this awareness would foster the teachers' own autonomy in virtual learning environments and enable them to design tasks which—in turn—would promote learner autonomy as understood by Palfreyman: the informed use of a range of interacting resources in context (2006). We argue that this awareness is reflected in enhanced multimodal communicative competence, "the ability to understand the combined potential of various modes for making meaning" (Royce, 2002, p. 92), and multiliteracy, with the latter allowing teachers and learners to realize the potential of blended and online only settings for language acquisition purposes. Ideally then, while becoming gradually more versed in multimodality and multiliteracy, learners can also take over more control and self-direct their own learning when working online (Benson, 2001) which are also characteristics of autonomy.

Keywords: Collaborative Learning, ICT Literacies, Learner Autonomy, Multimodal Texts

INTRODUCTION

It has been argued that the use of Web 2.0 tools and environments such as wikis, blogs, and forums in the language classroom not only offers unlimited authentic sources and target language speaker interaction (e.g., Guth & Helm, 2010; O'Dowd, 2007; Pegrum, 2009; Richardson, 2006) but can also increase learner autonomy (Hampel & Hauck, 2006). Drawing on Kress (2000), Hampel and Hauck suggest that online environments can be conceptualized as "packaged resource kit[s]," language learners as "agents" or "designers" and the learning process as "a process of design" (2006, p. 11). Still, these tools and environments put new demands on teachers and learners in terms of multimodal communicative competence (Royce, 2002) and multiliteracies (Cope & Kalantzis, 2000; Kress, 2003). Consequently, language teachers have to become agents and designers, and thus must acquire the necessary skills and competences themselves before they can support learner autonomy in Web 2.0 contexts as understood by Palfreyman (2006). One particularly promising field is "telecollaboration 2.0" (Guth & Helm, 2010), which stresses dialogue building and the use of commonly available social networking tools, encompassing the development of language proficiency, intercultural communicative competence, and multiliteracies.

In the following, we will discuss findings from two case studies which involved four groups of telecollaborative partners from the Open University, UK (OU), Teachers College, Columbia University, USA (TC), the Pädagogische Hochschule Heidelberg, Germany (PHH), and the College of Foreign Languages Czestochowa, Poland (WSL). The aim of both case studies (2008–2009 and 2009–2010) was twofold: to raise participants' multimodal awareness through a task-based approach, by asking them to identify online communication modes and how they support or constrain meaning-making, and to guide

teachers in designing tasks which take account of multimodality in online contexts.
The research questions for both case studies were as follows:

1. To which extent does the task design help participants develop learner autonomy through understanding and working with the mediating effect of online tools?
2. In what ways do participants display teaching competences when designing multimedia tasks to develop language learner autonomy?

In this paper, we first outline our understanding of the interrelationship between multimodal communicative competence, multiliteracy, and learner autonomy. Next, we briefly describe Hampel and Stickler's (2005) "pyramid of skills" for tutoring in online and blended settings, which we use as the framework for the skills and competences explored. Then, we present the participants, project phases, and task and research designs. Afterwards, we describe our approach to data collection and analysis; finally, we finish by discussing our findings and highlighting our main conclusions.

Multimodal Communicative Competence, Multiliteracy, and Learner Autonomy

The last decade has seen several literacy models that include the use of technology—from computer or information literacy to electronic literacy to multiliteracy. While computer literacy merely covered the mastery of the machine, electronic literacy "considers how people use computers to interpret and express meaning" (Warschauer & Shetzer, 2000, p. 173), or as Pegrum puts it, "literacy in a diverse range of media and cultural frameworks" (2009, p. 36). The New London Group's concept of multiliteracy (Cope & Kalantzis, 2000) is the most comprehensive literacy model to date reflecting the constant interplay between individual human agency and social, economic, historical, and political contexts that determine the various discourses resulting from it. A potentially global participation enables learners to engage in multifaceted discourses which literacy development needs to incorporate. Learners are confronted with a host of new challenges as they have to deal with the multimodal nature of this text universe. Thus, multimodal competence or multimodality (Kress, 2003) is at the core of this new kind of literacy which the New Media Consortium defines as "a set of abilities and skills where aural, visual, and digital literacy overlap," including "the ability to understand and use the power of images and sounds, to manipulate and transform digital media, to distribute them pervasively, and to easily adapt them to new forms" (2005, p. 8).

Central to the concept of multimodality is that media offer the possibility to combine a variety of different modes in the making of texts (*text* understood as any artifact produced with the help of representational resources) and that the computer allows us to combine these modes easily to make meaning. One might therefore assume that social networking tools and environments replicate more conventional face-to-face classrooms by incorporating a whole range of seemingly familiar modes such as text, audio, and graphics, etcetera. Yet, as Kress states, it is vital to gain a precise and explicit understanding of the meaning-potentials of the resources and "to attend to the *materiality* of the resources, the material *stuff* that we use for making meaning" (2003, p. 32). In a Web 2.0 context the "material stuff" is the computer with its new possibilities for representation, communication, and text production including how modes function and can be combined. At the same time, these multimodal texts are culturally grounded. Unsurprisingly, the need for multimodal competence when working online also has an impact on online learner autonomy.

Web 2.0 tools and environments—which have become increasingly popular both in language learning and teaching in general and in telecollaborative exchanges in particular—empower users to design, edit, and publish their own multimodal texts bringing together, as Kress summarizes, "resources for representation and their potential with the resources of production and the resources of dissemination" (2003, p. 23). By increasing learners' awareness and by developing their ability to transform the resources according to their personal, social, cognitive, and affective needs and interests, tasks demands and institutional circumstances, we can actively support them in becoming competent users of multimodal environments, or as mentioned earlier, "agents" and "designers" (Kress, 2000). The learning process could then be

characterized as a process of design, in which the degree of multimodal communicative competence and the degree of learner control and thus autonomy—or, as Kress claims: "agency of a real kind" (2000, p. 340)—are likely to be interdependent (Hampel & Hauck, 2006). Kress describes this interrelationship as follows:

> […] the work of design: the intentional deployment of resources in specific configurations to implement the purpose of the designers. […] The work of the text maker is taken as transformative of the resources and of the maker of the text. It gives agency of a real kind to the text maker. (2000, p. 340)

Consequently, becoming aware of constraints and possibilities in terms of online modes and meaning-making and engaging in systematic development of multiliteracy skills can potentially increase learner autonomy understood—in line with Palfreyman (2006)—as the informed use of multimodal environments. The autonomous learner, then, is the one who—in line with Kress—can "choose, not merely with full competence within one mode but with full awareness of the affordances of many modes and of the media and their sites of appearance" (2003, p. 49). This involves critical use of modes (competence in code and mode switching and familiarity with new codes, such as online speech, online writing, and image), dealing with affective demands (engagement with unfamiliar tools leading to affective challenges such as language anxiety and cognitive overload) and intercultural differences (the fact that modes, making meaning, and communicating online are influenced by cultural conventions) (Hampel & Hauck, 2006). Meeting these challenges requires the training of teachers in the design of activities that make efficient use of multiple modalities to ensure that learners stretch and adapt all elements available to them in any given online environment (Hampel & Hauck, 2006). Such training can potentially contribute to what Fuchs (2006), drawing on Willis (2001), calls *professional literacy*, and would allow them to systematically work up their way on Hampel and Stickler's (2005) "pyramid of skills" for tutoring online.

Competence Models and Teacher Education

For Hampel and Stickler (2005), the first three levels of their "pyramid of skills" (http://www.llas.ac.uk/resources/gpg/2530) for teaching in online or blended contexts cover basic ICT competences, specific technical competences when using bespoke applications, and the skill of dealing with constraints and possibilities of the medium corresponding to the aforementioned stages of computer, electronic, and multi-literacy. Level three is particularly relevant to the case studies here as "teachers need to be able to harness the potential of the medium for language learning" while having to deal with learners' emotional responses to any given online environment and having to make "students aware that certain things cannot be done in a particular environment but that it is possible to make up for this in other ways" (Hampel, 2009, pp. 39–40). At levels 4 and 5, teachers should be able to turn "an online environment into a platform where communicative competence can be developed" which "is dependent on a sense of community and trust" (Hampel & Stickler, 2005, p. 318). Levels 6 and 7 of the skills pyramid relate to teachers' creative skills and their ability to choose the right tool for the job and develop their own teaching style. The discussion of our findings refers to the first five levels. The following section describes the participants, project phases, and task and research designs.

RESEARCH DESIGN

Participants

Tables 1 and 2 show the participants in case studies 1 and 2.

Table 1. Participants Case Study 1

Country	United States	Germany	Poland	United Kingdom
Institution	TEACHERS COLLEGE COLUMBIA UNIVERSITY	Pädagogische Hochschule Heidelberg	WYŻSZA SZKOŁA LINGWISTYCZNA W CZĘSTOCHOWIE FILOLOGIA PEDAGOGIKA	The Open University
Number of participants (n = 78)	26	21	13	18
Participant Description	Pre-service teachers (master degree candidates, TESOL/Applied Linguistics program)	Pre-service teachers (state exam EFL candidates, primary/secondary school)	Language learners (German B1/B2)	Language learners (German B2)
Nature of Course	TESOL, classroom practices	Task-based language learning and media literacy	German language course	German language course
Modality	FTF	FTF	FTF	online only

Table 2. Participants Case Study 2

Country	United States	Germany	Poland	United Kingdom
Institution	TEACHERS COLLEGE COLUMBIA UNIVERSITY	Pädagogische Hochschule Heidelberg	WYŻSZA SZKOŁA LINGWISTYCZNA W CZĘSTOCHOWIE FILOLOGIA PEDAGOGIKA	The Open University
Number of participants (n = 101)	53	20	18	10
Participant Description	Pre-service teacher (master degree candidates – TESOL/Applied Linguistics program)	Pre-service teacher (state exam EFL candidates – primary/secondary school)	Pre- and in-service teacher (extramural)	In-service teacher (EFL, ESL, EAP)
Nature of Course	TESOL- classroom practices (FTF)	Task-based language learning and media literacy (FTF)	ICT in ELT (blended)	Staff development (online only)

Project Phases and Task Design

Each case study spread over 10 weeks respectively and was split into three phases: The Introductory Phase (2 weeks), the Project Phase (7 weeks), and the Evaluation Phase (1 week). The working language was English (German for the language learners in study 1).

For the teachers, the project design combined pedagogical and technical training (e.g., Hampel, 2009),

online tutoring skills and e-literacy skills development (Hampel & Hauck, 2006), and was inspired by Hoven's (2006) experiential modelling: participants were exploring modes available online and their impact on meaning-making and communication by engaging in hands-on analysis of web resources and social networking tools. Moreover, we adapted O'Dowd and Ware's categories of tasks for telecollaborative projects, which increase in levels of complexity from *monologic information exchange*, to *comparison and analysis*, to *collaborative task* (2009, pp. 175–178). Specific examples are outlined below.

Case Study 1

Teacher trainees in Germany and in the United States worked both in local and in telecollaborative groups while the language learners at OU and WSL worked in telecollaborative groups only. Task 1 (Appendix A) was inspired by Lamy and Hampel (2007), who suggest that first the modes involved in making up a multimodal environment should be identified and then the meaning-making and communication possibilities they afford the learner—both as single and as combined modes—should be considered. Furthermore, Task 1 was informed by Halliday's (1989) social-semiotic framework and Kress and van Leeuwen's (2001) understanding of multimodality, which includes the affordances of modes for making meaning through the new media. This comparison and analysis task required learners to exchange information, but also to go a step further and carry out comparisons or critical analyses of cultural products. Participants focused on the modes featured on a web resource of their choice and on how these modes convey information. The aim was to learn about their cross-institutional partners' various backgrounds while becoming increasingly aware of how the information was communicated through the site. Task 2 (Appendix B), a collaborative task, asked participants to exchange and compare information and to work together to produce a joint product. The teacher trainees were a week ahead of the language learners at the OU and WSL. Thus, the former selected and the PHH trainees translated some of the tasks they had designed in their telecollaborative teams, and the students at OU and WSL carried them out.

Case Study 2

Teachers worked both in local and telecollaborative groups. As only few postings to the Task 1 group forums in Study 1 (Appendix A) explicitly referred to modes and meaning-making, we reassessed the task design for Study 2. Learners were provided with a fully worked model of a website analysis and asked to be more explicit about meaning-making features of the web resource they examined.

Furthermore, we dedicated Task 1 of Study 2 (Appendix C) to multiliteracy skills development in more general terms based on Pegrum (2009) before focusing on multimodality in Task 2 (Appendix D). Task 3 (Appendix E) then continued with this focus on modes.[2] Based on the use of the tool analyzed in Task 1, participants were asked to design an intercultural learning task which considered their English learners' multimodal competence.

DATA COLLECTION AND ANALYSIS

Our case studies share characteristics of action research (e.g., Nunan & Bailey, 2009) and exploratory practice (Allwright & Hanks, 2009), and our role was that of participant observer.

In line with Nunan and Bailey (2009), we understand action research as a systematic, iterative process which in this study comprises of (1) defining the aim (i.e., investigating the interrelationship between task design, learner autonomy, and teaching and media competences); (2) planning a four-way project cycle; (3) carrying out the telecollaborative exchange; (4) observing the apparent outcomes of the project cycle; (5) reflecting on the outcomes and on alternative approaches to carrying out the investigation; and (6) repeating these steps again in the second cycle upon having refined the task design, by putting a stronger focus on multimodal competence development. While being low-scale in terms of size and interference in classroom processes, action research nevertheless "involves systematic collection of data […] and

analysis of qualitative data and description of events and processes" (Benson, 2001, p. 282). This approach is reflected in the presentation and discussion of our findings and builds on various research studies on telecollaboration in pre-service teacher education which have also drawn on this research paradigm (e.g., Belz & Müller-Hartmann, 2003; Fuchs, 2006; O'Dowd, 2007).

Allwright and Hanks (2009), however, have criticized the action research approach in that it is too limiting and have suggested a move to exploratory practice or inclusive practitioner research instead:

> Third-party research in general cannot meet our purposes, and practitioner research, the form of AR [action research], has not yet taken us far enough away from the third-party model to overcome these limitations. […] The first two parties for research on education are the teachers and the learners. (Allwright & Hanks, 2009, p. 145).

Exploratory research attempts to bridge the teacher-researcher gap and to help teachers counter burnout by focusing primarily on teachers (although with a recent shift to learners to acknowledge their centrality), by trying to make teaching more interesting for teachers, and by emphasizing principles over practice (Allwright & Hanks, 2009). These authors further insist that language learning and teaching and research are social processes and thus call for learners as "key practitioners" without excluding teachers. Instead, both should be considered "'practitioner colleagues' with the teacher playing a collegial role in helping learners develop as researchers of their own practices and as practitioners of learning" (p. 146). This collegial role was taken on both by the authors of this contribution and the in- and pre-service teachers who took part in both project cycles with all three groups reflecting on their practice (see indicators for research questions 1 and 2 below).

The case study approach was chosen as it grasps the complexity of telecollaborative projects. A case study investigates a single instance or phenomenon in context and focuses primarily on gaining understanding of a context, (i.e., on the *what it is* and *what it does*) and not on generalizing results (see Nunan, 1992). A case study is primarily "theory-building" or "data in search of a hypothesis." This means that "[…] generalizations and hypotheses emerge during the course of the data collection and interpretation, rather than being predetermined by the researcher" (Nunan, 1992, p. 56). Case studies are "methodologically speaking […] a 'hybrid' in that almost any data collection and analytical methods can be used" (Nunan & Bailey, 2009, p. 157). They are characterized by the fact that "a case is a 'bounded instance' […] whether those boundaries are physical (a certain school site), or temporal" (p. 161) such as in these semester-long telecollaborations. The phenomenon in the case study "is studied in context, focusing on observation, description, inference and interpretation, all important facts of ethnographic and practitioner research" (p. 162).

Other case study characteristics are longitudinality, multiple perspectives (by researchers and participants), and the triangulation of data. The latter involved in both case studies gathering information through qualitative and descriptive quantitative data from pre- and post-course questionnaires, CMC transcripts (forum postings, wikis), learner portfolios, and journal entries. In doing so, we attempted to get multiple viewpoints and a more in-depth understanding of the phenomenon under investigation (e.g. Nunan, 1992). This is in line with the call for "more description of the learners, settings, and events in [CALL] contexts" (Huh & Hu, 2005, p. 17); and we especially "need a better understanding of how exactly all of these factors interact and operate in real pedagogical contexts" (Chambers & Bax, 2006, pp. 466–67; see also Müller-Hartmann & Schocker-v. Ditfurth, 2008; Hampel & Hauck, 2006). This kind of research can offer

> a broad and balanced analysis of the various factors and their interaction, it could have a local impact, in that it could lead to the better use of CALL in the research settings themselves. It could also have a wider impact, in that it could illuminate the ways in which these factors could be

managed in other contexts (Chambers & Bax, 2006, p. 467).

The action research cycles helped us understand and adjust our own practice. At the same time, we model for our learners how reflective pedagogical tools (e.g., journals and portfolios) can serve as tools for research by engaging them in exploratory practice.

Table 3 shows the data collection instruments for both case studies (see Appendix F for a more detailed description). Additionally, the CMC data in both studies came from participants' posts in the Moodle forums, blogs, and wikis.

Table 3. Data Collection Instruments

Data Collection Instrument	Case Study 1 (2008-2009)	Case Study 2 (2009-2010)
	n = 101	*n* = 78
Pre-Project Questionnaire (Pre-Q)	*n* = 26	*n* = 62
	(PHH: 15; OU: 8; TC: 3)	(PHH: 15; TC: 22; OU: 12; WSL: 13)
Needs Analysis (NA)	*n* = 25	*n* = 53
	(TC: 25)	(TC: 53)
Journal Entries (JE)	*n* = 25	
	(TC: 25)	
Portfolios (PF)	*n* = 4	*n* = 5
	(PHH: 4)	(PHH: 5)
Post-Project Questionnaire (Post-Q)	*n* = 28	*n* = 42
	(PHH: 18; OU: 8; TC: 2)	(PHH: 20; OU: 8; WSL: 14)
Post-Project Telephone Interviews		*n* = 5
		(OU: 5)

The authors and teacher-researchers at the OU, PHH, and at TC collaborated in designing their data collection instruments for the first action research cycle (ARC) (case study 1) and in refining instruments for the second ARC (case study 2). After the second ARC, they each coded their students' data with reference to the research questions (see Introduction). The following indicators (IN) provided the basis for analyzing the data in terms of learner autonomy.

For research question 1:

- Indicator 1.1 Teachers describe the tool's multimodal potential
- Indicator 1.2 Teachers describe the tool's potential for communication and interactivity, i.e. its meaning-making potential, covering constraints and affordances
- Indicator 1.3 Teachers describe the tool's potential to support EFL/ESL learner autonomy

For research question 2:

- Indicator 2.1 Teachers show an awareness of the importance of developing learner autonomy when working online
- Indicator 2.2 Teachers show an awareness of the importance of multimodality when trying to

develop their learners' autonomy

Indicator 2.3 Teachers design tasks that a) help learners understand and handle the tools involved, and that b) allow learners to develop autonomy

The analysis was done by inserting color codes and comments, and by highlighting sections of the data, (e.g., CMC transcripts, needs analyses, journal entries, questionnaires, portfolios). Next, we cross-checked our colleagues' data sets against our own by coding and commenting further until categories emerged from the data, which were then discussed in multiple online meetings.

FINDINGS AND DISCUSSION

This section provides an in-depth analysis of one cross-institutional group in both ARC 1 and 2. To describe the competences participants developed during the course of the two ARCs, we use the aforementioned competences framework (Hampel & Stickler, 2005). Data were kept in their original form. Participants' names are pseudonyms. We suggest looking at the respective tasks of ARCs 1 (Appendices A and B) and 2 (Appendices C, D and E) before reading the data analysis.

Action Research Cycle: Case Study 1

The following is an analysis of the cross-institutional group comprising Rita, Colleen, and Susan (TC) and Silke (PHH).

In the introductory activity, participants exchanged information about their teaching experience. While Colleen and Susan have had little teaching experience, Rita has already taught various age groups in different cultural contexts. Silke has taught at secondary and graduate levels. Rita has already taken technology courses and appears to have more proficiency using computer tools than Silke (Pre-Q/A[3]) and the other group members. Silke's main motivation is getting first-hand experience with telecollaboration projects, while Rita is more interested in doing a "project completely based in an online space" (Pre-Q/D). In her Needs Analysis Rita reiterates this goal. Both Rita and Silke are interested in the potential of learning new ways of teaching a foreign language (Silke: Pre-Q/D) and "to use computer mediated communication, both inside and outside the classroom" (Rita: Pre-Q/D).

Evaluating and Comparing Websites and Determining their Interactivity

With regard to research question (RQ) 1, participants' evaluations of the two sites (Task 1.1) stays on a descriptive level, pointing to the various links of a German site (http://www.uni.edu/becker/German2.html) and the video material on a Chinese site (http://www.chinaontv.com/) without evaluating the multimodal potential of the sites (IN 1.1). However, in Task 1.2, which focuses on the interactivity of the site and the role of the user (IN 1.2), all group members make suggestions for pedagogical improvements, displaying competences as to the possibilities and constraints of the tool's meaning-making potential (the 3rd level of Hampel and Stickler's skills pyramid). Rita's ideas for the German site include putting the feedback button on the top of the page, asking people to send feedback to the designer to make the website "more interactive and dynamic" (Rita, F-10/25/08). The group wants to get more peer-to-peer and intercultural interaction out of the site by advising "the two designers to give their audience more opportunity to contact each other and share their ideas" (Colleen, F-11/01/08). In her journal, Rita suggests making the site interactive and dynamic by using a blog. However, she takes a critical stance, pin-pointing the tool's constraints (IN 1.2): "[M]ore often than not we get pulled into constructing the blog as more of a journal or a flat piece of writing, perhaps simply because we are not yet accustomed to the possibility of writing as being an interactive process. I think if nothing else, weblogs are worth exploring for this feature. Anything with the potential (whether or not it is always recognized) to promote continued communication and interaction between students is beneficial" (JE3-10/27/08).

This illustrates Kress' (2003) point that authorship is no longer rare, making for greater democracy and a leveling of authority, or, in Richardson's words, "[b]logs engage readers with ideas and questions and links. (…) They demand interaction" (2006, p. 18). Moreover, "[a]s students participate, they also take ownership of the space, and (…) this can lead to a greater sense of participation" (p. 28). Hence, Pegrum's (2009, p. 38) call for "participatory literacy" as part of the skillset necessary to become more autonomous when operating online. While Rita does not refer to autonomy development yet, Colleen, with regard to the Chinese site, makes the connection between multimodal competence and learner autonomy (IN 1.3) when she observes:

> There is a greater chance to be an active viewer. Especially in the Culture section, there are many videos that allow the user to click through animated pages, read information on Chinese culture, and watch video clips. The user is responsible for controlling the pace and the direction the information will take. […] If the learner has the necessary competence s/he can be more active, hence more autonomous in choosing and checking out content (F-11/01/08).

Silke stresses though that "[t]he page itself is not that useful to use in a classroom, because it is way too overloaded with information, students could click for hours without actually working" (F-11/04/08), pointing out the danger of cognitive overload through hypertext links. Both, thus describe the need for "hypertext literacy … [the] ability to understand the rhetorical effects of links […] and to respond to their navigational effects" (Pegrum, 2009, p. 38), and demonstrate their competences as to understanding the affordances and constraints of the medium (Level 3 of the skills pyramid). Participant contributions, like Colleen's observation above, led to our decision to front-load more general literacy skills development in ARC 2 (Task 1). Next, students analyzed a web resource in terms of modes and potential for meaning-making (Task 2).

Providing a Rationale for Negotiating and Choosing a Multimodal Website for EFL/ESL Learners

In Task 1.3 participants discuss constraints and affordances and the pedagogical potential of their two chosen sites and thus focus on how to search information on complex websites. To offset the cognitive overload, Silke refers to the teacher's role of designing tasks to support her learners' autonomy (INs 1.3 and 2.1):

> […] What is very good about the page is that they already divided the links into categories. So I could choose a topic for a session and give the students some of my chosen weblinks. Then they can work on their own, or in pairs, working with the websites (F-11/04/08).

Rita also focuses on students' "search literacy" (Pegrum, 2009, p. 36) to support autonomy development: "I also see this page working for a group activity, like a web quest, in that the students could do a bit of research on their own […] without having to go all over the Internet" allowing them "to play with the computer and the Internet" (F-11/10/08). Rita agrees with Silke, especially for students with "very little experience using computers or the Internet" (F-11/10/08). The quotes support IN 1.3 (the website's potential to support EFL/ESL learners' autonomy). INs 2.1 and 2.2 (awareness of the importance of autonomy and multimodality) are also supported since participants focus on task design to support autonomy already in this task.

Developing ESL/EFL Learners' Skills Through a Technology-Based Task

With regard to RQ 2, the rationale of Task 2 was for participants to focus on using technology to enhance skills development without an explicit emphasis on the importance of multimodality in this process. This led to an underestimation of the role of multimodality in the task design (IN 2.2). The group chose the wiki tool in Moodle to negotiate the design of the collaborative writing task. A discussion of tools though only started when they realized that posting their final task design in the wiki "might look messy with all

our notes back and forth" (Rita, W-11/23/08). Sabrina writes that she is "really confused by this wiki thing too," and thinks that "it would have been better to do this in the forum" (W-11/24/08). Susan finally makes the connection between their own experiences in the wiki trying to write a collaborative task, and having their learners later do the task in a wiki as well (IN 2.2): "it seems as if the other group are going to be using the wiki to complete the activity, so could we have them peer edit/review on the wiki and publish on the knoll [*sic*] after they're finished?" (W-11/24/08). Susan brings up the Knol as an additional tool, which the TC group had found and posted earlier in the forum (F-11/10/08). Here, they show their competence as autonomous teachers who want to support their learners' autonomy (INs 2.1 and 2.2). This also becomes evident in their search for a new tool: "Anyone can create a knoll [*sic*] article but unlike the Wikipedia, authors of knolls [*sic*] can take credit for their writing […]. The important thing here is that students can take credit for their work and become the author of a written piece of work" (TC group, F-11/10/08) (IN 1.3). This illustrates yet again Kress's (2003) observation about authorship and leveling of authority afforded by the new media.

Hence the group demonstrates skills at level 5 of the pyramid (facilitating communicative competence through task design); nonetheless, they do not provide a rationale for using the wiki for the drafts and the Knol for publishing. This led to changes in ARC 2. Still, competence was developed in terms of task sequencing and task instructions, another crucial aspect of task design. Silke writes:

> [W]hat was completely new for me was to set up tasks that should be carried out online or with the help of online tools like wiki. […] It [The task] had to be carried out in a week or two and so had to be thought through accurately and of some kind of higher level, so it would take more than a day to carry it out (Silke, PF entry).

She seems to have developed competences both in terms of task design (task sequencing—project task) and how tasks can be combined with technology. Silke also reflects on the teacher and the learner role and compares both of them and she understands the importance of task instructions: "Sometimes […] we had problems to figure out what exactly we were supposed to do. Experiences like this made clear to me how important the formulation of a task is" (Silke, PF entry).

The great majority of participant contributions related to Task 1 in case study 1 were concerned with what the selected sites facilitate teachers and learners in doing and what the challenges were. The number of postings from the final part of Task 1 (part 3, step 1) which make explicit reference to modes and meaning was unexpectedly small. To better support multimodal skills development, we re-assessed the task design in ARC 2 by having teachers look at specific tools to develop e-literacy skills first. Throughout the task design we put a stronger focus on multimodal competence development. In Task 2, we provided participants with a fully worked example of a website analysis based on Halliday's framework to model for them exactly what was expected. Teachers had to describe why and how they would use these websites in their teaching. The aim was to support teachers in gauging the effects of technological mediation on language teaching and in finding out how the potential of the online environment can be used to enhance communication and interaction, thereby fostering their own and their learners' autonomy. The frame spelled out in detail our expectations concerning the different modes. Task 3 ensured that teachers chose a tool they had worked on before to enable them to transfer their multimodal competences from Tasks 1 and 2 to task design in Task 3.

Action Research Cycle: Case Study 2

Here, we present an analysis of the cross-institutional group comprising Megan (OU), Malgorzata (WSL) Katja, and Ina (PHH). In our analysis of the forum contributions to Task 1, we also consider postings from other participants as they were able to post in other group forums as well.

Malgorzata has tutored children and hopes that the project will help her become more proficient in using

technology in ELT. Katja has limited teaching experience and wants to learn how to get young language learners/special needs students motivated through using technology. Ina's background is similar to that of Katja's but she has already taken a course on teaching with technology. She feels that she has learned a lot (about wikis, interactive whiteboards, and blogs) and thinks the project is a unique opportunity for trying out technology in ELT. Ina also hopes to learn about telecollaboration and looks forward to share experiences with students from other countries. Megan, an in-service tutor with several years of experience in FTF and blended ELT settings, has worked with discussion forums (Pre-Q/5,8,9,10). While none has much experience with social networking tools, Megan has used wikis in educational contexts (Pre-Q/7), and Katja and Ina have used chat/forums/IM/Skype for private purposes. Malgorzata has used chat/forums for teaching (Pre-Q/7).

Evaluating Technology Tools and their Potential to Foster Multiliteracy Skills

For RQ 1, Tasks 1.1 and 1.2 required students to analyze a tool of their choice based on Pegrum's (2009) criteria. In Task 1.3, participants commented on other groups' results regarding Tasks 1.1 and 1.2.

Except for Malgorzata, who looked at forums, all group members analyzed the wiki. Like other teachers, Malgorzata used forums mainly to look for resources and she is eager "to provide knowledge in a way easily adaptable by children" (F-31/10/09). This prompts the following reply by Megan, who uses forums regularly:

> […] you took a much wider view of a forum than I had considered by considering forums that are available to all or to bigger groups. At the OU we work on forums and they are usually restricted either to a small tutor group, a group of tutors or a course which makes it a much different experience […]. On the forums we use you can add pictures to your texts which also adds a different dimension (F-2/11/09).

Megan picks up on Malgorzata's idea to cater for young learners suggesting that adding pictures to complement text might be useful. Malgorzata's reply provides evidence of her awareness of the medium's potential such as turning a forum into a platform where communicative competence can be developed (IN 1.1):

> [I]f I had a chance to [use a forum as a teaching tool] my students would be very interested in the possibility of working this way, especially one of them. He talks with people from other countries using chats and is fascinated with vocabulary he can discover […] (F-8/11/09).

In her answer to Task 1, Malgorzata also observes the following (F-31/10/09): "As forum is based on writing I think that visual modes of communication such as pictures would facilitate the points. We can send them via e-mail to chosen forum participants or post as links." Malgorzata uses this point to justify the need for multimodal literacy skills when working with forums (IN 1.1).

Another group chose to examine the wiki. Markus disagrees with Megan and Angela's contribution, in particular with their "vote against "technological literacy" in relation to the use of wikis (F-29/10/09). He concedes that "you don't need programming literacy like html to create a wiki, but you need to be able to use text software for example." Yet, he agrees with the remainder of their analysis saying that he "[…] can follow [their] idea that wikis support the democratisation of learning processes" (IN 2.2). Nonetheless, Markus stresses that the implementation of wikis in the classroom is still "hard to realize," a point which highlights the fact that teacher or learner competence of the new media nor their ability to use them constructively should not be assumed as a given. Markus' post also demonstrates empathy with learners who are not ready to embrace a more collaborative writing process with non-linear texts that tools such as wikis facilitate. In her reply, Angela adjusts her initial decision acknowledging that she had

> fallen into the trap of forgetting how this tool, or any new tool, can be difficult for those who are not used to using computers. […] Ideally a wiki should be introduced to students through very simple tasks to allow them to familiarise themselves with the tool (F-30/10/09). (IN 2.1)

Megan therefore suggests to "introduce wikis right from the beginning of the course and [to] make the task non-threatening so that the learners are not worried about making changes on each other's work" and admits that she "would find it a bit intimidating to change someone else's work" (F-30/10/09). Words like "non-threatening," "not worried," and "intimidating" clearly indicate an awareness of the affective demands of social networking tools (IN 2.2) and corroborate Hampel's (2009) point about dealing with learners' emotional responses to different online environments (3rd level of the skills pyramid).

As Angela does, Ina and Katja point out "teachers need to make sure that pupils acquire basic knowledge about how to use this tool" (F-2/11/09; see also Rita in ARC 1). And—like Megan—they also refer to the fact that the use of wikis, being a text-based tool, should be enhanced by integrating visuals—"uploading appropriate pictures and diagrams—" (F-2/11/09), a fact Megan mentions in relation to forums (see above) (IN 2.2).

In their answer to Task 1.3, Ina and Katja also observe that "pupils are mainly working together" in a wiki and that the "teacher's role is to support and guide them, but the emphasis is on collaborative work" (F-29/10/09) which shows their awareness of the importance of developing learners' autonomy (IN 2.1). The group underlines that this tool requires intensive exchanges between users to support "the process of drafting, revising and editing" and "to prevent misunderstandings," "in order to create a meaningful final product all agree with" (F-29/10/09). They clearly see the affordances of a wiki in relation to the joint production of a text and its meaning-making potential (IN 1.2).

Megan also sees the wiki's potential for fostering learner autonomy (Pre-Q/7) through leveling of authority (Kress 2003), describing it as "a democratic tool […] to share power" where "the teacher needs to give it over fully—not have control" and where there is a "focus on the group" which will need to "negotiate" content "through an editing process" (INs 2.1 and 2.2). At the same time she highlights a pedagogical problem, that "often it ends up more like a blog than a piece of work that is co-authored as learners just add to it rather than add and edit" (F-30/10/09) (IN 1.2).

The examples show that unlike in ARC 1, Task 1 here led to an intensive discussion of the need for multimodal literacy. This stresses the necessity to develop teachers' technical competences (levels 1 and 2 of the skills pyramid). Teachers show skills in terms of the affordances and constraints of the forum and the wiki. Through the negotiation in the forum, other participants become aware of these skills as well (level 3 of the skills pyramid). The revised Task 1 also triggers pedagogical discussions that already provide indicators for RQ 2 (see Megan above).

Evaluating a Website with Focus on Mode and Commenting on the Analysis

Task 2, an awareness raising task, serves as a basis for teachers to choose a website for analysis again inspired by Halliday's social-semiotic framework, with the area of mode spelled out in detail. The group chooses the Lonely Planet site for Portugal (http://www.lonelyplanet.com/portugal), which is "mostly in written and image mode" (Megan, F-20/11/09, IN 1.1). The site is linked to a series of blogs, and Megan concludes that it "aims at users who like to share their experience and who are willing to explore different countries as well as cultures." Megan also observes that, thanks to English subtitles and "many beautiful and interesting pictures within these videos, it is possible to understand the gist." She is obviously aware of the complementary function of modes in relation to making meaning, i.e., how visuals and written text facilitate the reader's/viewer's understanding of audio input (IN 1.1).

Malgorzata draws the group's attention to design features and their affordances:

> [The] Logo is simple and easy to remember. It contains […] a circle resembling a globe which suggest that the website is about travelling. […] The texts are written in legible font and characteristic words (e.g. places) are highlighted in blue so a guest can directly move to information connected with a given concept (F-21/11/09).

She analyzes the site's various written modes—descriptive text provided by Lonely Planet compared to blog entries, for example. Malgorzata differentiates between the "very demanding" descriptions, "connected with a lot of effort to read and understand" and "[t]he blogs or posts of travellers [which] are written more simple including their feelings and emotions. These texts support the lonely planet texts and help to understand them better" thus making them more understandable for language learners (IN 1.1).

The focus in Task 2 is clearly different from Task 3 because the former does not ask teachers to design an activity for English learners (ARC 1), but focuses exclusively on further awareness raising of the multimodal potential of websites. The discussion in ARC 1 though showed that Task 2, in which teachers consider their future teaching context, can develop awareness of the pedagogical potential of online tools and support for developing autonomy (ARC 1), thus supporting teachers' competence development early in the project.

Using Technology Tools for Intercultural Task Design for ESL/EFL

Task 2 in ARC 1 was revised as Task 3 and now focuses on designing an intercultural task by using one of the tools/resources teachers discussed and analyzed in Tasks 1 and 2. This triggered interesting data since teachers use one of the tools they have analyzed earlier. The task purpose is thus not just intercultural learning, but also "developing (an aspect of) multimodal literacy."

Unlike in ARC 1, the group discusses the potential and affordances of different tools from the very beginning since it is a built-in task requirement. Ina considers the blog's affordances—asynchronicity and its multimodal potential—and argues for using the tool for Task 3: "Blogs require a discussion beforehand, a draft of the text and an agreement of the final product. Furthermore, it is possible to integrate (necessary in primary) pictures. Consequently, all 4 [*sic*] skills are trained as well as different types of literacy for a real purpose and it helps them to develop and improve in their L2 quickly" (F-6/12/09) (IN 2.2).

In Task 3, the group demonstrates that they have realized the tool's potential by integrating various communication modes such as pictures, video, audio files. Moreover, they make insightful suggestions as to the level of interactivity and intercultural learning provided for learners (i.e., for secondary learners: creating cultural pages with factual errors the partner group has to correct by posting a revised version; for primary learners: learning and performing a Christmas song, video-recording it and uploading it to the blog so that the other class can learn it). Here, the group shows strong competences on levels 5 of the skills pyramid, facilitating communicative competence through task design (INs 2.3a and b). The issue of developing autonomy also comes up in their reflections. Commenting on her future students, Ina says that she "will need to be aware about the fact that they need enough freedom to try things out and to reach their own boundaries to learn by problem-solving and active examination with the respective topic and participants" (PF/7). This is a strong IN for 2.2 and 2.3b, which is further consolidated by the following statement: "This project helped me to realise and understand that students will grow within projects like that because they will have to accept responsibility in this quite autonomous process of interaction and understand the importance of their own work and contributions" (Ina PF/9).

When looking at the task sequence of ARC 2 it becomes clear, as Ina summarizes, that the group has "developed an idea about teaching with the help of new media mainly through learning by doing" (PF/7), or, in Hoven's (2006) words, experiential modeling. Based on the insight gained from the two case studies presented above, the final section offers some preliminary conclusions.

CONCLUSIONS

In this article, we took the interrelationship between multimodal communicative competence, multiliteracy skills and autonomy as our starting point to analyze the competencies that (future) language teachers require to develop first their own and then their learners' autonomy in online and blended settings. Our data suggest that experiential modeling (Hoven, 2006) and exploratory practice (Allwright & Hanks, 2009) allow language teachers—both as learners and teachers—to find out about modes, meaning making, and online communication, and help them become familiar with the mediating role of Web 2.0 tools and environments. This approach can also contribute to learner autonomy as conceptualized by Palfreyman: the informed use of a range of interacting resources in context (2006). The ARC results show though that task design in this context should follow a certain sequence: First, tasks should focus on gaining an understanding of the e-literacy skills required when working with tools such as forums, wikis, and social bookmarking sites for language learning and teaching purposes. Ideally, this understanding should enable teachers to provide a rationale for using bespoke tools. Next, tasks should raise their awareness of a tool's specific affordances, i.e. the constraints and possibilities of the modes available for meaning making and communication (Hampel & Hauck, 2006). This will allow the teachers to move to the next level of Hampel and Stickler's (2005) skills pyramid by fostering their multimodal communicative competence and thus their professional literacy (Willis, 2001). These steps are a prerequisite for the subsequent phase in which teachers themselves design tasks with the goal of fostering, in turn, their learners' multimodal competence and autonomy since merely equipping learners with creative and democratic representational online resources will not necessarily result in higher student control over the learning process or the development of autonomy (Hampel & Hauck, 2006).

This approach should become a learning goal itself both in pre- and in-service teacher training and formal language instruction. Then, while becoming gradually more versed in multimodality and multiliteracy, teachers as learners can take more control over and self-direct their learning in online environments (Benson, 2001), thus becoming more autonomous and gradually gaining the competence to design tasks that also enhance their learners' autonomy.

APPENDIX A. Case Study 1: Task Instructions

Task 1.1

In your local teams, choose an educational website about one of the cultures represented in your partner group to trigger a stimulating cross-cultural discussion in the telecollaborative teams.

Evaluate the website's goals and content:

1. What is the site about?
2. What can you say about the site's reliability?
3. What activities are provided?
4. Are there any cultural values and beliefs embedded in the materials presented?
5. Post the link to the site you have chosen and answers to the questions 1-4 above to your Group Forum.
6. Check your group members' answers.
7. Post at least one comment on your group members' links and comment on other participants' contributions.

Task 1.2

Compare the two websites of your telecollaborative group by answering these questions:

Post your answers to your Group Forum.

1. Who is the intended audience of the site?
2. Is the site for individual use/pairs?
3. How interactive are the sites? Do they mainly provide information, or, is there an opportunity to contribute to the site(s)?
4. What is the user's status?

Task 1.3

Step 1:
With your local partner, choose one site for use with your ESL/EFL students. Provide a brief rationale including the issue of multimodality and a sample activity.
Step 2:
Post Step 1 in your Group Forum.
Step 3:
Comment on your cooperative partners' website choice: Are there any additional suggestions you have in terms of the site's potential use?

APPENDIX B. Case Study 1: Task Instructions

Task 2 Rationale

Here we will focus on using technology to enhance the development of specific skills, namely reading and writing. We ask you to develop a *short* collaborative writing task for one of the other participating groups. Each group will then execute the task given to them. Finally, your group will reflect in class on the success of the task you had designed and passed on.

Please proceed as follows:

Review chapters 20 & 21 in Brown.
In your telecollaborative group, choose a topic related to intercultural learning and the implications for language teaching for a collaborative writing task.
Provide a one-paragraph rationale for the task.
Design a *short* collaborative writing task which includes a pre-writing, drafting, and revision stage. This task should be completed by another group via the wiki function.
Provide a concise description of the steps and the page limit for this task. Max. 1,000 words.
Include a short assessment component for the writing task.

APPENDIX C. Case Study 2: Task Instructions

Task 1.1: E-Literacy Skills

Which of the following are required to use the tool you chose, which can it help develop? Why?

Literacy	**Competencies**	**Is this literacy required?**	
		Yes	**No**
Technological literacy	programming skills		

Search literacy	understanding the criteria for search engine results		
Multi-modal literacy	interpreting the relationship and interaction between different formats of digital media and modes of communication		
Remix literacy	using digital tools to create new combinations of pre-existing material		

(Adapted from Pegrum, 2009)

Task 1.2: E-Professional Skills

1. Have you already used the chosen tool yourself

   a. in private contexts? If yes, explain briefly.
   b. in teaching contexts? If yes, explain briefly.

2. How does this tool allow you to have access to, understand and interpret texts, sound, images, etc. from users of other cultures?

3. How does this tool allow you to communicate information about your own cultural context(s), present your ideas, thoughts and personal identity?

4. In the process of "negotiation of meaning" learners assist one another in order to achieve mutual understanding. How does this tool support this process?

5. Which of the communication modes (written, visual, oral, aural) provided by the tool facilitate points 2 to 4 in the most efficient way? Why?

6. How can this tool be combined with other tools to extend the possibilities of creating a space for online exchange and collaboration?

7. In what ways have other teachers you know used this tool? Where can you find support from fellow teachers or mentors on the Internet?

8. How do you define your role as a teacher with regard to implementing this tool in your teaching? How is this different from face-to-face teaching?

Task1.3:

Please respond to at least two other contributions by commenting on the other groups' tools:

Do you agree with their evaluation? Why/why not?

How could you use this tool to promote multiliteracy skills in your teaching?

APPENDIX D. Case Study 2: Task Instructions

Task 2.1

Field:

In your teams, choose on one of the following websites:

http://www.hermitagemuseum.org/html_En/index.html

http://www.lonelyplanet.com/europe

Evaluate your site of choice by addressing these questions:
1. What is the site about?

2. What activities are provided?

3. How reliable is the website? Justify your answer.

4. What cultural values and beliefs are embedded in the materials?

Tenor:

1. Who is the intended audience of the site?
2. Is the site for individual use/pairs?
3. How interactive is the site?
4. What is the user's status?

Mode:

Analyze the various communication modes/channels available on the website you have chosen:

1. spoken mode
2. written mode
3. image mode
4. gestural mode

Which modes are represented and which functions do they have?

Post the answers to your group Forum.

Post at least one comment on the other groups' findings in one of the other forums for each part of the task.

APPENDIX E. Case Study 2: Task Instructions

Task 3

In your collaborative teams design a task for **the use of any of the tools from Task 1** and which allows your respective learners to engage in intercultural learning with a partner group.

Please organize your task in the following way:

1) Context

What kind of learners do you teach?

2) Purpose

What can learners do after the task concerning intercultural learning and developing multimodal literacy?

3) Procedure

What activities do your learners engage in?

4) Outcome (product)

What kind of product does the task have?

Provide feedback on the task designed by at least one other participant group.

APPENDIX F. Data Collection Instruments for Case Study 1

Pre-Project Questionnaire

This questionnaire elicited information about participants' profiles, their computer skills, language learning preferences, prior group work, cross-cultural experiences, and project expectations.

Needs Analysis

Participants in the U.S. filled out a needs analysis at the beginning of the term.

CMC Data

The collaboration was based on asynchronous CMC (group forum, wiki, blog) through a customized version of the free course management system Moodle hosted on the OU server.

Forums

Each telecollaborative group had a Moodle Forum to complete Task 1,1-3 and Task 2.

Wikis

Each telecollaborative group had their own Moodle Wiki to complete Task 2.

Blogs

At the outset of the project, all participants responded to the following MLA quote with a personal experience that would support the statement, implications of this statement for them as foreign language teachers, and the role of technology in achieving this goal: "As recent world events have demonstrated, deep cultural knowledge and linguistic competence are equally necessary if one wishes to understand people and their communities." (Modern Language Association, May 2007, http://www.mla.org/flreport). Additionally, students responded to their peers' posts.

Journal Entries

TC students submitted 3 journal entries via email throughout the semester as part of the regular class assignments. In their entries (only shared with the TC instructor), students were encouraged to reflect on course-related issues as well as their experiences in the collaborative project.

Portfolios

At the end of the term, those PHH students who needed credit in the course compiled a portfolio for evaluating their virtual exchanges with the U.S. students. The purpose was for students to reflect on the ways the exchange contributed to the PHH students' professional development.

Post-Project Questionnaire

All participants filled out a questionnaire reflecting on the collaboration with their cross-institutional partners. Open-ended questions asked participants how satisfied they were with the outcomes of the two tasks, how they could apply what they had learned (through positive/negative experiences) to their classroom teaching, and if they had concrete suggestions for future projects with regard to technological, institutional, and/or linguistic challenges.

Data Collection Instruments for Case Study 2

The following instruments were the same as in Case Study 1: Pre-Project Questionnaires (all), Needs Analysis (TC), Moodle Forums (all), Portfolios (PHH), Post-Project Questionnaires (all). Additionally,

the OU conducted Post-Project Interviews with 5 participants.

Pre-Project Questionnaire

The questionnaire consisted of 6 multiple choice (MC) items eliciting information about participants' multiliteracy skills and familiarity with various ACMC/SCMC tools. Students also replied to two open-ended questions about unfamiliar technology tools and competences of online teachers.

Forums

Each cross-institutional group had their own Moodle Forum to complete Task 1 and 2.

Post-Project Questionnaire

The questionnaire consisted of 13 MC and ten open-ended questions reflecting on the following activities:

Analyzing a web tool
Analyzing a website
Designing an activity
Participating in group forums
Evaluating the work of other groups

Post-Project Interviews

OU students participated in Elluminate phone interviews answering questions about their motivation to participate in the project, their learning gains, awareness of multiliteracies and meaning-making in online learning.

NOTES

1. In the following teacher trainees and tutors will be subsumed under the term teachers if not otherwise noted.
2. Tasks 1–3 and their sub-tasks are included in Appendices A–E.
3. Abbreviations for data collection instruments are as follows:

   F = Forum (plus date)

   JE = Journal Entry (plus entry number plus date)

   PF = Portfolio

   Pre-Q = Pre-Course Question (plus question number, e.g., "C")

   Post-Q = Post-Course Question (plus question number, e.g., "D")

   W = Wiki (plus date)

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