Implementing Linguistic Landscape investigations with M-learning for Intercultural Competence Development

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ABSTRACT

Portable multimedia devices shape the intensity of intercultural contacts not only through content consumption but also through content creation. Enabling learners to participate in content exchange via the Web 2.0 paradigm (audiences as both media consumers and media creators) can be employed to create new forms of acquiring knowledge. This study demonstrates an application of m-learning in a situated in-the-field examination of cultural diversity with the Linguistic Landscape approach. The application is shown from the pedagogical perspective of authentic, informal learning activities conducted in the framework of connectivism. The examination of cultural diversity is conducted in the context of a local environment, i.e. a location familiar to learners. This paper presents a scenario of m-learning activities intended to demonstrate that cultural awareness is often biased by subjective perspectives and stereotypes. Autonomous discovery of this phenomenon results in elevation of learners’ openness toward other cultures, which contributes to intercultural competence development.

INTRODUCTION

The current pace of globalization and, at the same time, glocalization indicates that cultural diversity carries an enormous inherent potential for progress and expansion in the future. Development of intercultural competence has already been perceived for some time (CEDRPC, 2006; LACE, 2007; RHLEFM, 2008; CEDEFOP, 2009) as a basic condition for peaceful and prosperous coexistence at both global and local levels. An ability to deal with cultural diversity is no longer required only of business professionals working in international settings, but has become a key qualification required of individuals to act productively in the modern world. This assumption has already been confirmed in research (Deardorff & Hunter, 2006; Hulstrand, 2008) pointing out that the ability to handle interaction in culturally diverse environments is a major skill employers seek. As put by Spitzberg and Changnon (2009, p. 4), “With ample opportunities for employment overseas, it becomes important for internationally competitive business to hire interculturally competent employees, if only for the future success of the business.”

Cultural diversity is manifested through linguistic presence. An inextricable link between cultural and linguistic diversity is stated in the Universal Declaration of Cultural Diversity (UNESCO, 2002) and the Convention on the Protection and
Promotion of the Diversity of Cultural Expressions (UNESCO, 2005). A linguistic, hence cultural, diversity can be studied efficiently with the Linguistic Landscape methodology, which is a rapidly growing field of research that has recently gained enormous popularity in a variety of disciplines. It can be essentially defined as a systematic examination of written displays of minority languages in the public space (Shohamy & Gorter, 2009).

The research presented in this paper is based on an assertion that “people who live in a particular country do not know intuitively or otherwise the whole of the culture of that country because there are in fact many cultures within a country” (Byram, Nichols & Stevens, 2001, p. 17). For that reason, the exploration of cultural diversity, as discussed in this study, can be situated in the context of an environment local to the participants. The hypothesis behind this study is that mobile learning activities conducted with proper interaction, collaboration, and interpretation of results can contribute important insights into the process of intercultural competence development.

INFORMAL, PERSONALIZED, SITUATED M-LEARNING

Mobile Learning (henceforth m-learning) is often associated with learning delivered by mobile (handheld) devices, such as smartphones, tablets, portable music players, etc., usually connected wirelessly to the Internet. Although such devices are central to conducting m-learning activities, technocentric conceptualizations of m-learning have been recently viewed as rather superficial (Kukulska-Hulme, 2010; JISC, 2011). Defining mobile education in terms of utilized devices seems to be constraining, since it is limited to current technological instantiations, which, at the pace of current technological innovation, tend to become obsolete before gaining widespread use in education.

Other proponents of m-learning (Winters, 2006; Sharples, Milrad, Sánchez & Vavoula, 2009) conceptualize m-learning in terms of the mobility of learning. This aspect is highly important, since extending learners’ mobility changes both the nature of learning and the variety of ways in which it can be delivered. However, as noted by Traxler (2009, p. 15), the nature of learning mobility can be viewed differently by different people. For some learners it may be associated with reading on a laptop computer while commuting to school; for others it may be hands-free listening to audiobooks or podcasts while exercising.

Because the above interpretations somewhat constrain the understanding of m-learning, it has become apparent that the full conceptualization of this field is still emerging. The present distinction between m-learning and e-learning appears to be somewhat blurred. As noted by Traxler (2009, p.14), it may be temporary, since with the advent of portable devices, wireless connectivity, and extended battery life, these two concepts may soon merge into one. Consequently, Traxler (2009) proposes a definition that views m-learning from the underlying learner experience. It distinguishes m-learning from other forms of electronic education by putting an emphasis on
ownership, informality, mobility, and contexts that will always be inaccessible to conventional tethered e-learning.

As pointed out by Kukulska-Hulme (2010, p. 181), m-learning is more specific than e-learning in its focus on mobility, which greatly extends the control of time and location that learners have over their learning activity by broadening learning opportunities in comparison to the traditional desktop-bound e-learning. Because m-learning is closely tied to e-learning as well as distance education, any attempts to develop its definition and implications must take into account that it occurs differently in different educational contexts. Kukulska-Hulme and Traxler (2007) undertook an extensive analysis of research conducted in different learning contexts (including a large number of pilots, case studies, and trials) to specify emerging categories of m-learning. One distinguished category involves an informal, personalized, situated m-learning, which takes place when “mobile, wireless and handheld technologies are enhanced with additional functionality, e.g. location awareness or video-capture, and deployed to deliver educational experiences that would otherwise be difficult or impossible” (Kukulska-Hulme & Traxler, 2007, p. 182). This study focuses on this specific category, demonstrating its application in the context of intercultural competence development.

**Pedagogical characteristics of m-learning**

Among different characteristics of m-learning, one that is particularly significant to this study is the aspect of situated learning, as proposed by Lave and Wenger (1991). It implies that in the course of educational activity learning takes place in appropriate and meaningful contexts. Because situated m-learning supports context-specific and immediate learning that situates and connects learners (Traxler 2009, p. 18), this aspect is perfectly suited to the linguistic landscape methodology. It enables students to act as apprentices in the process of hands-on exploration of the local cultural diversity, which results in their increased participation in the learning community.

This study puts a strong emphasis on informal education, as distinguished by Livingstone (1999), which can be essentially defined as learning involving the pursuit of knowledge that occurs without the presence of externally imposed curricular criteria, but is conducted under the guidance of an institutionally-recognized instructor. Moreover, this study demonstrates a transition from the knowledge production paradigm to the knowledge navigation paradigm (Brown T., 2005), where both formal and informal approaches to learning are mixed, and the traditional teacher’s role changes to that of a coach or mentor. As emphasized by Vavoula and Sharples (2009), blurring boundaries between formal and informal education adds certain value, because in some learning situations it makes sense to incorporate both elements of formality and informality.

Another attribute of m-learning particularly relevant to linguistic landscape investigations is the aspect of authentic learning, which implies that learning is centered around authentic tasks that enable students “to explore, discuss, and meaningfully connect concepts and relationships that are relevant to the real-world and are
meaningful to the students” (Donovan, Bransford & Pellegrino, 1999). As shown in this study, while investigating the linguistic landscape of their local environment learners become directly involved in the inquiry of cultural diversity, which provides them with opportunities to pursue meaningful problems and become engaged in the social discourse.

Finally, the implementation of m-learning discussed in this paper falls into the pedagogical framework of connectivism (Siemens, 2005), in which learning is focused on connecting specialized information sets collected by individuals involved in the learning process. The connections created in that process enable learners to gain new knowledge, which expands their current state of knowing. In this study, the experience of individuals involved in an investigation of cultural diversity is fed back into a shared linguistic landscape to create new knowledge that provides further learning to all students involved in the process. This cycle of knowledge development enables learners to gain new knowledge through the connections they have formed while examining the local cultural diversity with the linguistic landscape methodology.

LINGUISTIC LANDSCAPE

The concept of Linguistic Landscape (LL) was initially used in sociolinguistics by Landry and Bourhis (1997, p. 25), who described it as follows: “The language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings combines to form the linguistic landscape of a given territory, region, or urban agglomeration.” This description is nowadays regarded (e.g. Shohamy & Gorter, 2009; Gorter, Marten & van Mensel, 2012) as the reference point for subsequent developments in the field. The Linguistic Landscape, essentially understood as counting languages on written signs on the streets inside and outside various types of buildings and subjecting them to different levels of analysis, frequently embraces also qualitative data in the form of background interviews and thorough examinations of collected language samples. Combined with other sources of data, such as information on spoken language traditions or language legislation, a systematic analysis of the linguistic landscape becomes more comprehensive as it takes into account ways in which it reflects language demographics, attitudes and policies (Gorter et al., 2012, pp. 3–4). In this manner, the linguistic landscape research contributes to a better understanding of the cultural diversity dynamics in a particular area.

An important aspect of linguistic landscape research involves minority languages as a focus of attention. One major distinction made by Gorter et al. (2012, pp. 5–6) concerns autochthonous (or traditional) and migrant (or new) minority languages, although, as emphasized by Extra and Gorter (2008, p. 9), these groups have much more in common than is usually noticed. Another important distinction (Gorter et al. 2012, p. 6) relates to the difference between unique minority languages, i.e. languages which exist only as minority languages (e.g. Basque or Welsh), and local-only minority languages, which are majority languages in another state (e.g. Polish in Lithuania). As emphasized
by the above-cited scholars, such distinctions are not always easily applicable in real-life situations, hence they remain, to some extent, arbitrary.

Another central area of discussion in current linguistic landscape research concerns the unit of analysis. Although all LL studies take into consideration language signs, there are different views on what should be considered a valid language sign for the linguistic landscape. Although Backhaus (2007, p. 66) defines it quite broadly as “any piece of written text within a spatially definable frame”, traditionally most LL studies are based on static linguistic signs. As argued by Gorter et al (2012, p. 6), this perspective may be somewhat outdated nowadays when, especially in urban regions, we are often surrounded by flat screen displays and other dynamic visual signs that have gained enormous popularity.

Yet another important aspect of LL studies entails multilingualism, which in the era of dynamic globalization and glocalization is often manifested through the presence of minority languages (in all senses discussed above) in the linguistic landscape of a given region (Gorter, 2006, pp. 81–82). Since any linguistic landscape is an entirely human-made phenomenon, it evidently pertains to a cultural reality of a given location. For that reason, it can be used to investigate how linguistic signs reflect language demographics, attitudes, and policies of a given region in order to discover its underlying cultural diversity. As demonstrated in this paper, autonomous discovery of the local cultural diversity is a good starting point for further intercultural competence development.

**INTERCULTURAL COMPETENCE DEVELOPMENT**

Terms such as intercultural competence, intercultural effectiveness, and intercultural adaptation can be traced back to the 1970s and 1980s. At that time various efforts were undertaken to develop a list of intercultural competence characteristics, which mainly showed that any comprehensive measures applied in this context must be multidimensional in nature (Spitzberg & Changnon, 2009). Despite numerous calls for intercultural competence development, the full conceptualization of Intercultural Competence (IC) has not been completely agreed between various disciplines, terminologies, and theoretical frameworks. This observation inspired Darla Deardorff (2004; 2008; 2009) to conduct a comprehensive survey in order to identify the components that should be incorporated in this concept. Her outcome-based definition, which has achieved wide consensus among intercultural scholars, views intercultural competence as “effective and appropriate communication and behavior in intercultural situations based on one’s intercultural knowledge, skills and attitudes” (Deardorff, 2008, p. 39).

Deardorff’s definition is accompanied by an extensive, multidimensional, cyclical model that visualizes the development of intercultural competence from a personal to an interpersonal level of interactions. The model shows the process of IC development can be viewed as a movement from individual internal outcomes, characterized by personal intercultural reflection and attitudes, to external outcomes,
which result in effective interaction in intercultural contexts. Altogether Deardorff identifies 22 elements that were agreed upon by the international scholars and professionals in the field of intercultural competence, including knowledge, skills, attitudes, comprehension, tolerance, etc.

The model presumes that the development of IC skills is an on-going learning process that involves, among other crucial elements, curiosity and discovery, which are necessary to transform one’s attitude, knowledge and skills to become sensitive to cultural differences in situations where language functions as a means of interaction and communication. This is consistent with Byram’s view (Byram, Nichols & Stevens, 2001; Byram, Gribkova & Starkey, 2002), which puts the skill of discovery and interaction, i.e. “the ability to acquire new knowledge of a culture and cultural practices and the ability to operate knowledge, attitudes and skills under the constraints of real-time communication and interaction” (Byram et al. 2002, p. 14), among basic skills involved in the process. Therefore, a fundamental element in the IC development is an opportunity to discover and evaluate as well as to analyze and interpret various phenomena related to other cultures. The acquisition of intercultural competence takes place through discovery, interaction, and interpretation of other cultures’ manifestations.

**LINGUISTIC LANDSCAPE EXPLORATION WITH M-LEARNING**

This study demonstrates an example of m-learning activities intended to elevate intercultural awareness of their participants through empirical discovery, analysis, and interpretation of a linguistic landscape. The investigation was conducted at the Institute of English Studies of the University of Lodz in October 2012. The group that took part in the research consisted of 20 students from an MA program in English Philology. Lodz is the third-largest city in Poland, located in the central part of the country with a population of over 700,000 citizens. Over the last few years, the city has seen many foreign companies opening offices in the region. Moreover, it is an important academic center with three major state-owned universities, and a number of smaller centers of higher education. (see Wikipedia: Lodz). Consequently, the city shows numerous traces of cultural diversity in its linguistic landscape.

The investigation was conducted in the context of a local environment, i.e. a location familiar to participants (cf. Waliński, in press, for a similar study conducted in a foreign environment). The location for the cultural diversity examination was limited to a 700 meter long stretch of the main street (Piotrkowska) restricted by two cross-streets. Students’ familiarity with the location facilitated mapping spotted language signs, and prevented participants from wandering off the exploration site.

The activity session was divided into two stages which altogether took 4 teaching hours and were implemented with the following scenario:
(1) Initial tutoring and instruction, including a discussion on cultural diversity in the region; collection of students’ predictions about foreign languages manifested in the site of exploration (30 minutes).

(2) Explanation of the linguistic landscape methodology and the aim of activities; assignment of exploration quadrants to students (15 minutes).

(3) Empirical exploration and data collection conducted with personal smartphones (60 minutes).

(4) Mapping the linguistic landscape onto a common shared map in Google Maps; sharing impressions from exploration (45 minutes).

(5) Comparison of earlier predictions with empirical data acquired through hands-on examination, including a discussion on the differences between the subjective intuitive perceptions of cultural diversity and the objective empirical findings (30 minutes).

The study concerned only migrant minority languages whose visibility stems from mixing different cultures in the modern Europe. The participants were encouraged to look for all foreign language signs they could possibly recognize. As advanced philology students they were expected to have a fairly extensive knowledge of various languages and cultures. The unit of analysis for the LL examination was specified broadly as “any visible foreign language sign that could be spotted”, including both outdoor and indoor locations in the vicinity of the street. The participants were encouraged to look inside cafés, restaurants, shops, etc. to broaden opportunities for discovering linguistic diversity in the short period of time that could be devoted to exploration.

The data collection was conducted with a simple, yet effective methodology. Pictures of spotted language signs were taken with smartphone cameras, and their locations with short descriptions were carefully noted by students. It should be emphasized that only personal mobile phones were used for data collection. No additional technical equipment is necessary to conduct activities of this type. Normally, geotagging of pictures, i.e. automatic addition of geographical location metadata to photographs, can be applied to achieve the same results with less hassle. However, it was not used for mapping linguistic signs in this particular study, because some participants had older devices lacking that functionality.

The transfer of pictures with foreign language signs and their respective locations to a single commonly shared map of the linguistic landscape was achieved with the use of Google Maps – a popular web service provided free of charge by Google (see maps.google.com). It enables marking locations on electronic maps and, what is particularly important in this case, allows for accompanying each marked location with a picture. It also allows for public sharing of such maps.
Initial tutoring and exploration

At the beginning of the session the aims of the activity were explained to the students, who were then asked to think about their personal perspectives on the cultural diversity in Lodz as their local environment. Then they were asked to prepare lists of five foreign languages that are most likely to be expected in the central part of the city, i.e. the area of exploration, which was used to identify the students’ starting level of cultural awareness. It is noteworthy that all participants who took part in the study had previously studied in Lodz for at least 4 years, and they had general familiarity with the location they were about to explore. For the exploration activities the students were divided into 10 pairs, each of which were requested to explore a different quadrant assigned as an area specified by address numbers on the left or right side of the street. The students were encouraged to continue their exploration until at least 10 public inscriptions in foreign languages in different spots were discovered. They were given an hour for autonomous exploration. During that time the instructor used the students’ lists to compile a ranking of languages expected to feature in the exploration site.

Data collection and mapping

When the exploration time had ended the teams returned to continue the session. The pictures taken with mobile phones were collected and mapped with the help of the instructor in Google Maps. The data collection and mapping took 45 minutes. During the mapping stage informal discussions were held with the returning teams, which allowed students to share their impressions from the exploration. All participants enjoyed the opportunity of active, informal, hands-on learning about cultures manifested in their city. A tangible outcome from the exploration activities was a shared electronic map with foreign language signs accompanied by pictures and short explanatory notes about each sign. In the final part of the session, the students had an opportunity to compare their earlier predictions with the linguistic landscape that emerged from the data obtained empirically, which enabled them to expand their perspectives on the local cultural diversity.

Observations from the in-the-field examination

The activities demonstrated some evident discrepancies between what students had expected based on their subjective intuitions and what they had subsequently discovered through the situated connected learning based on the authentic exploration. The following 11 languages were included in the predictions: English (20 predictions); Spanish (17); German (15); Italian (15); French (13); Chinese (8); Turkish (7); Japanese (2); Czech (1); Russian (1); Vietnamese (1). The linguistic landscape revealed 9 languages in the region of exploration, including: English (45 signs); French (12); German (7); Turkish (4); Chinese (3); Japanese (2); Italian (2); Greek (1); Dutch (1). The listing shows that top positions in the students’ lists were occupied by popular European languages, i.e. English, French, German, Italian, and Spanish. The participants rightly
expected English to be ubiquitous in the linguistic landscape of the city (cf. Bolton, 2012). Obviously, it was important and recognizable in the surroundings for the English Philology students who took part in the study. Moreover, it seems that French and German also occupy prominent positions in their mindsets, since these languages were included in numerous predictions and spotted in numerous language signs.

However, some other languages observed in the area differed from the students’ expectations as to their prevalence. Firstly, the expected visibility of Spanish was not confirmed in the exploration site at all. Moreover, Italian was not as strongly visible as had been expected. When asked why they see these languages as important in the city landscape some students replied that they study these languages either in mandatory university courses or of their own accord in language schools. One person admitted that she had been practicing flamenco dancing for a couple of years. These discrepancies indicate that our perception of the local cultural diversity is significantly biased by personal, highly subjective representations: what we recognize as important is what we already know.

Moreover, no signs of Czech, Russian, and Vietnamese were spotted in the exploration site but traces of Greek and Dutch were found instead, which demonstrates that the objective reality does not necessarily overlap with subjective expectations in each case. A further indication that we perceive local cultural diversity from the point of view of our personal cognitive representations is a conspicuous absence (both in predictions and submitted pictures) of less popular European languages, e.g. Norwegian, Portuguese, Romanian, etc. They were neither included in predictions nor spotted in the exploration. However, it does not necessarily mean that they are not present in the exploration site, but rather may indicate that they are not widely recognized, and for that reason they may escape perception.

Certainly, the above study is too limited (short time, low number of participants, small area of exploration) to discuss general cognitive schemas that pertain to cultural diversity perception or any quantitative/qualitative evaluation of the cultural diversity in the city. However, these findings fulfill the general aim of the activities intended to demonstrate that our awareness of local cultural diversity may be biased by subjective perspectives and stereotypes. When these observations were summarized in the final discussion, the participants admitted that it brought their attention to foreign cultures that they had previously neglected to discern in the surroundings. It relates, for example, to the Turkish elements in the linguistic landscape, as well as to different Asian cultures, which sometimes tend to be superficially approached under the umbrella notion of “Chinese” (cf. Waliński, in press). Moreover, the students learned that some cultures that they perceive as common from their personal perspectives are not necessarily strongly manifested in the local linguistic landscape. In the outcome, their perception of the local cultural diversity had changed. As pointed out by Deardorff (2008, p. 36), attitudes of respect, openness, curiosity, and discovery for acquiring and processing knowledge about other cultures are fundamental to the development of the much desired internal outcomes characterized by personal stance and intercultural reflection.
A broadening of cultural awareness is a sound starting point for further intercultural competence development.

**CONCLUSION**

This study demonstrates that the situated and connected hands-on exploration of a linguistic landscape with portable multimedia devices provides an opportunity for authentic empirical discovery of languages that are becoming locally relevant in the increasingly globalizing and glocalizing world. It exposes cultures relatively underappreciated by learners due to subjective perspectives and stereotypes, which contributes to the internal outcomes in the intercultural competence development process. Conducting such m-learning activities with proper interaction, collaboration, and interpretation of results elevates learners’ sensitivity to foreign cultures and broadens their cultural awareness by demonstrating that perception of foreign cultures is frequently influenced by subjective biases.

Taken together, the results indicate that cultures subjectively recognized as important not only tend to occupy higher positions in cognitive representations of cultural diversity, but are also more easily discernable for us in the surrounding linguistic reality. For the same reason, cultures that are not fully recognized in cognition become, at least to some extent, neglected in our perspectives on cultural diversity, even if they are strongly manifested in the linguistic landscape. This observation goes along the lines of Piaget’s theory of schemata (Inhelder & Piaget, 1958), Papert’s theory of constructionism (Harel & Papert, 1991), constructivistic assertions that learning is based both upon experience of external objects and former knowledge (Jonassen, 1991). It is also congruent with the cognitive “Me First” principle of world perception (Cooper & Ross, 1975), as well as findings on the level of mental construal of distant and near phenomena (Trope & Liberman, 2010). In more general terms, the results indicate that our perception of cultural diversity in the local environment is significantly biased by our subjective intuitions: typically people make inferences about cultural diversity spontaneously, without much awareness or effort (cf. Kahneman, 2011; Uleman, Adil Saribay & Gonzalez, 2008). Hence, autonomous discovery of the local cultural diversity provides authentic environmental cues for shaping openness and curiosity toward other cultures.

A key aspect of m-learning activities conducted with the above-presented scenario is the resulting contextualization of learning (Biggs & Tang, 2011). As discussed in this paper, it is achievable to a much greater extent with m-learning than would ever be possible with traditional teaching or desk-bound e-learning. It demonstrates that m-learning creates new forms of acquiring knowledge through tasks built around contextualization, data capture and sharing, as well as location-awareness (cf. Brown E., 2010), which exemplifies the following benefits typically attributed to m-learning (JISC, 2011):
• Integration of abstract (representational) and concrete (environmentally-situated) knowledge;
• Contextualization of learning through location-aware features;
• Reflection in close proximity to the learning event;
• Supporting the learning processes with authentic, situated data;
• Active learning.

Finally, the study shows that m-learning embraces a wide range of different educational paradigms, which can be implemented differently in different educational contexts. It is not the technology itself, but how we use it to create enhanced learning experiences that is crucial for successful implementation of m-learning in real-life educational settings. Implementation of linguistic landscape examinations with portable multimedia devices adds another dimension to the learning experience. It demonstrates how relatively unproblematic it is to employ m-learning for an effective and entertaining learning experience used for pursuit of meaningful problems, which are not easily detectable otherwise, and expands the potential of m-learning applications to the increasingly important domain of intercultural competence teaching and learning.

REFERENCES


