

# **MEDIA CREATION AND SHARING IN INFORMAL, SITUATED, AUTHENTIC MOBILE LEARNING FOR LOCAL CULTURAL DIVERSITY INVESTIGATION**

Jacek Walinski

*Institute of English Studies, University of Lodz  
Al. Kosciuszki 65, 90-514 Lodz, Poland*

## **ABSTRACT**

New media shape the intensity of intercultural contacts not only through content consumption but also through content creation with modern technologies. Enabling citizens to participate in the content exchange via the Web 2.0 paradigm (audiences as both media consumers and media creators, which is prevalent in modern online services) results in greater than ever before heterogeneity of modern societies. This study demonstrates an application of portable multimedia devices (smartphones) for content creation and sharing in the context of situated, in-the-field cultural diversity investigation aimed at intercultural competence development in the context of local environment, i.e. a location familiar to students. The paper shows how m-learning can be employed to create new forms of acquiring knowledge by application of mobile devices in Linguistic Landscape examination of multilingualism. The application is shown from the pedagogical perspective of situated, authentic, informal learning tasks conducted in the framework of connectivism. This study presents a ready-made scenario of m-learning activities that demonstrate that cultural awareness is often biased by personal perspectives and stereotypes. Conducting such activities results in the change of learners' attitudes toward other cultures, which is a sound starting point for further intercultural competence development.

## **KEYWORDS**

Mobile learning, intercultural competence development, situated learning, informal learning, linguistic landscape

## **1. INTRODUCTION**

Current pace of globalization demonstrates that cultural diversity carries an enormous inherent potential for progress and expansion in the future. The *development of intercultural competence* has already been perceived for some time (LACE 2006, CEDRPC 2006, RHLEFM 2008, CEDEFOP 2009) as a basic condition for peaceful and prosperous coexistence at both the local and global level. The 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 observation has already been confirmed in research (Deardorff and 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 (2010, 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. The inextricable link between cultural and linguistic diversity is stated in the *Universal Declaration of Cultural Diversity* (UNESCO 2001) and the *Convention on the Protection and Promotion of the Diversity of Cultural Expressions* (UNESCO 2005). The linguistic, hence cultural, diversity can be studied efficiently with the Linguistic Landscape methodology, which is a rapidly growing area of research that has recently gained enormous popularity in a variety of disciplines. It can be essentially defined as systematic examination of written displays of minority languages in the public space (Shohamy and Gorter 2009).

The research discussed in this paper is based on Byram's 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 et al. 2002, p.17). For that reason, the exploration of cultural

diversity discussed in this study is situated in the context of environment local to the participants. This paper demonstrates how application of mobile learning activities conducted with proper interaction, collaboration, and interpretation of results contributes to the development of intercultural competence.

## 2. INFORMAL, PERSONALIZED, SITUATED MOBILE LEARNING

The term *Mobile Learning* (m-learning) is associated with learning delivered by mobile (handheld) devices, such as smartphones, tablets, portable music players, etc., usually connected wirelessly to the Internet. Although those devices are central to conducting mobile learning, such technocentric conceptualizations has been recently viewed (Kukulka-Hulme 2010, JISC 2011) as rather superficial, since various definitions of mobile education in terms of utilized devices seem to be constraining and limited to current technological instantiations. At the pace of current technological innovation they quickly become obsolete before gaining widespread use in education.

Other proponents of mobile learning (Winters 2006, Sharples 2007) conceptualize it in terms of the mobility of learning. This is a highly important aspect of m-learning, 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 learners. For some people it may be associated with reading with a laptop computer on a train while commuting to school; for others it may be hands-free listening to audiobooks or podcasts while exercising, etc.

Because the above interpretations somehow limit the understanding of m-learning, it has become apparent that the full conceptualization of m-learning is still emerging, and the current distinction between *m-learning* and *e-learning* is somehow blurred. As noted by Traxler (2009, p.14) this distinction 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 (Ibid.) proposes a definition which views mobile learning from the underlying learner experience. It distinguishes m-learning from other forms of electronic education by putting emphasis on ownership, informality, mobility, and contexts that will always be inaccessible to conventional tethered e-learning.

As pointed out by Kukulka-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. This substantially broadens learning opportunities in comparison to the traditional desktop-bound e-learning. Because mobile learning is closely related 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. Kukulka-Hulme and Traxler (2007, p. 182) undertook an analysis of extensive body of research conducted in different learning contexts (including a large number of pilots, case studies, and trials) to specify emerging categories of mobile learning. One distinguished category involves the *informal, personalized, situated mobile learning* which occurs when "mobile, wireless and handheld technologies, are enhanced with additional functionality, for example, location awareness or video-capture, and deployed to deliver educational experiences that would otherwise be difficult or impossible" (Ibid.). This study focuses on this specific category, taking into consideration its particular features in the context of cultural diversity examination with the linguistic landscape methodology.

Among different characteristics of mobile 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 mobile learning supports context-specific and immediate learning that situates and connects learners (Traxler 2009, p.18), this aspect of m-learning is perfectly suited to the linguistic landscape methodology. This enables students to act as apprentices in the process of hands-on exploration of local cultural diversity, which results in their increased participation in the learning community.

Furthermore, this study puts a strong emphasis on *informal education*, as distinguished by Livingstone (1999, p.4), which can be essentially defined as learning activities involving the pursuit of knowledge or skill which occurs without the presence of externally imposed curricular criteria and is conducted under the guidance of institutionally-recognized instructor. This study demonstrates the transition from the *knowledge production* paradigm to the *knowledge navigation* paradigm (Brown 2005), where formal and informal learning techniques are mixed and the traditional teacher's role changes to that of a coach and mentor. As

emphasized by Vavoula and Sharples (2008), blurring of 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 mobile learning particularly relevant to linguistic landscape investigation is the aspect of *authentic learning*. It implies that learning should be based 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 et al. 1999). As shown in this study while investigating the linguistic landscape of their local city students are directly involved in the exploration and inquiry of cultural diversity, by which they gain opportunities to pursue meaningful problems and become engaged in social discourse.

Finally, the application discussed in this paper falls into the pedagogical framework of *connectivism* (Siemens 2004) where learning is focused on connecting specialized information sets collected by individuals involved in the learning process. “The connections that are created in this process enable learners to gain new knowledge, which is more than their current state of knowing.” (Ibid.) In this study the experience of individuals involved in the investigation of cultural diversity of their city 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.

### 3. 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. Gorter et al. 2012) as the reference point for many of current developments in this field. Linguistic Landscape, i.e. counting languages on written signs on the streets inside and outside various types of buildings and subjecting them to different levels of linguistic analysis, often 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 of a region or language legislation, the systematic analysis of linguistic landscape becomes more comprehensive as it takes into account ways in which the linguistic landscape reflects language demographics, attitudes and policies (Gorter et al. 2012, pp. 3-4). In this manner linguistic landscape research contributes to a better understanding of the dynamics of cultural diversity changes in a particular area.

An important aspect of linguistic landscape research is the *minority language* in the focus of attention. It can be approached from different perspectives. One major distinction made by Gorter (2006, pp.5-6) concerns *autochthonous* (or traditional) and *migrant* (or new) minority languages, although as stressed 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) is the difference between *unique* minority languages, i.e., languages which exist only as minority languages (such as Basque or Welsh), and *local-only* minority languages which are majority languages in another state (such as Polish in Lithuania). As emphasized by the above cited authors, such distinctions are not always easily applicable in real-life situations, hence remaining arbitrary to some extent.

Another central area of discussion in the 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 a linguistic landscape. Although Backhaus (2007, p. 66) defines it quite broadly as “any piece of written text within a spatially definable frame”, traditionally most linguistic landscape studies are based on static linguistic signs. As argued by Gorter (et al. 2012, p. 6) this perspective may be somehow outdated nowadays when, especially in urban regions, we are often surrounded by flat screen displays and other dynamic visual signs that have recently gained enormous popularity.

An important position in LL studies is occupied by research of *multilingualism*, which in the era of dynamic globalization and localization 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

linguistic landscape is an entirely human-made phenomenon it evidently pertains to cultural reality of a given location. For that reason, it can be used to investigate how linguistic landscape reflects language demographics, use, attitudes, and policies of a given location to discover its underlying cultural diversity. This makes a valid starting point for the cycle of intercultural competence development.

#### 4. INTERCULTURAL COMPETENCE DEVELOPMENT

As summarized by Spitzberg and Changnon (2010, p. 9.) terms such as *intercultural competence*, *intercultural effectiveness*, and *intercultural adaptation* trace back to the 1970s and 1980s. At that time various efforts were undertaken to develop a list of intercultural competence characteristics. They mainly showed that any comprehensive measures applied in this context should be multidimensional in nature. 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 Deardorff (2004, 2006) to conduct a comprehensive study in order to identify the components that should be incorporated in this notion. Her outcome-based definition views intercultural competence as “the ability to communicate effectively and appropriately in intercultural situations based on one’s intercultural knowledge, skills and attitudes” (Deardorff 2006, p. 247). It has achieved wide consensus among intercultural scholars.

Deardorff’s definition is accompanied by an extensive, multidimensional, cyclical model that visualizes development of intercultural competence from the personal to interpersonal level of interactions. The model shows a continuing process of intercultural competence development, which is viewed as the 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’s study (Ibid.) identifies 22 elements of intercultural competence, including knowledge, skills, attitudes, comprehension, tolerance, etc., which were agreed upon by the international scholars and professionals in the field.

The model presumes that the development of IC skills is an on-going learning process that involves, among other crucial elements, curiosity and discovery (Ibid., p. 255) 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 congruent with Byram’s view (2001, 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 intercultural competence development

Therefore, a fundamental element in intercultural competence development is an opportunity to *discover and evaluate* as well as to *analyze and interpret* various phenomena that are related to other cultures. The acquisition of intercultural competence, including *knowledge, comprehension, and skills* takes place through discovery, interaction, and interpretation of other cultures manifestations. They form a key component in the practice of intercultural competence development.

#### 5. M-LEARNING ACTIVITIES

This study demonstrates an example of mobile learning activities intended to develop intercultural competence through empirical discovery, analysis, and interpretation of a linguistic landscape. The investigation was conducted in the context of local environment, i.e. a location familiar to participants, 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 of English Philology in the final year of their MA program. Lodz is the third-largest city in Poland located in the central part of the country. It has 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, Lodz is an important academic center with three major state-owned universities, and a number of smaller centers of higher education. (Wikipedia: Lodz). Consequently, the city centre could be reasonably expected to show some visible traces of cultural diversity in its linguistic landscape. The location for cultural diversity exploration was limited to 700 meters long region of the main Piotrkowska street restricted by two

cross-streets (Pilsudskiego and Struga) at the opposite location ends. The students' relative familiarity with that location helped them in mapping spotted language signs, and prevented them from wandering off the exploration site.

The object of study concerned only migrant minority languages whose visibility stems from mixing different cultures in modern Europe. Consequently, exploration efforts dismissed any historical dialects existing in the region. The participants were encouraged to look for all foreign language signs that 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 LL methodology in the research was specified quite 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 their opportunities for discovering linguistic diversity in a short period of time that could be devoted to the exploration.

The data collection was conducted with a simple, effective methodology. Pictures of spotted language signs were taken with cell phone cameras, and their locations with short descriptions were carefully noted by students. It should be emphasized that only personal mobile phones were used for picture taking, therefore no additional technical equipment is necessary to conduct similar activities in other contexts. Geotagging of pictures, i.e. automatic addition of geographical location metadata to photographs, was not used for mapping of linguistic signs in this particular study (because some participants had older cell phones without this functionality), but potentially it can be applied to achieve the same results with less trouble.

Transfer of foreign language sign pictures and their respective locations to a single, commonly shared linguistic landscape was achieved with the use of *Google Maps* – highly popular web service provided free of charge by Google. It enables marking locations on electronic maps, and what is particularly importantly in this case, allows for accompanying each marked location with a picture. It also allows for public sharing of such maps.

The activity session was divided into two stages which altogether took 4 teaching hours. The first part was devoted to the initial tutoring and instruction, which was followed by data collection (2 teaching hours). The remaining time of the session was devoted to picture transfer and analysis of the emergent linguistic landscape. Both at the beginning and at the end discussion sessions were held. The initial discussion focused on predictions on the cultural diversity of Lodz. It was used to identify students' starting cultural awareness. The final discussion was based on analyzing the emergent linguistic landscape. The participants had an opportunity to compare their previous predictions with the actual cultural diversity evidenced in the linguistic landscape. It was used to identify whether students' perspectives on the local cultural diversity in their surroundings had changed, i.e. whether their intercultural competence had been elevated.

## **5.1 Stage 1: Initial Tutoring, Exploration, and Data Collection**

At the beginning of the session the aims of research were explained to students in a 15 minute presentation. Next 15 minute slot was devoted to a discussion about students perspectives on cultural diversity in Lodz as their local environment. The students were asked to think about different languages that are apparent in the city landscape and to prepare lists of most conspicuous foreign languages in the region. 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 team was requested to explore a different part of city centre. The different quadrants for individual teams were assigned as areas specified by address numbers on the left and right side of the main street. The participants were encouraged to continue their exploration until at least 10 public inscriptions in foreign languages in different spots were discovered. They were given 60 minutes for exploration.

## **5.2 Stage 2: Discussion and New Perspectives**

When the exploration time had ended the teams returned to the institute. The pictures taken with mobile phones in the exploration were collected and mapped by the instructor in Google Maps. The data collection and mapping of the linguistic landscape took 45 minutes. A tangible outcome of the experiment was a shared map that included linguistic sign locations accompanied by pictures and short explanatory notes about each sign, which reflected the linguistic landscape. In the final 45 minutes of the session, the students had an

opportunity to compare their earlier predictions with the linguistic landscape that emerged from the data obtained empirically.

## 6. OBSERVATIONS

The first noteworthy observation that emerges from the experiment is that there are some evident discrepancies between what students predict and the results of empirical findings. The following 11 languages were included in students' initial predictions: English (20), Italian (15), German (13), French (13), Chinese (8), Turkish (7), Spanish (7), Japanese (2), Czech (1), Russian (1), Vietnamese (1). The linguistic landscape revealed that actually 9 languages were present in the region, including: English (45), French (12), German (7), Turkish (4), Chinese (3), Japanese (2), Italian (2), Greek (1), Dutch (1).

The above listing shows that although all participants rightly predicted that English should be omnipresent in the linguistic landscape of the city, some other languages observed in the area differed from students' predictions as to their occurrence and prevalence. For example, top positions in students' predictions were occupied by other popular European languages, i.e., Italian, German, and French. The linguistic landscape revealed that although the presence of German and French was manifested in the location, Italian was not as strongly visible as it had been expected. Moreover, the expected visibility of Spanish was not confirmed in the exploration at all. Furthermore, no signs of Czech, Russian, and Vietnamese were spotted, but traces of Greek and Dutch were found instead.

The above differences indicate that our perception of the local cultural diversity is significantly biased by personal cognitive representation. The outcomes indicate that what we identify as important in the local environment is what we recognize. English was obviously important and recognizable in the surroundings for English Philology students. Moreover, it seems that French and German occupy prominent positions in the mindsets of students who took part in the study, since they were both included in numerous predictions and spotted in numerous language signs. This indicates that our personal attitudes exert a significant influence on the sensitivity of perception. However, the objective reality of local surroundings sometimes does not meet our cognitive expectations. This is exemplified by the lower than expected visibility of Italian, and the absence of Spanish language manifestations in the location. A further indication that we perceive local cultural diversity from the point of view of our personal cognitive representation is 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 mean that they are not present in the centre of Lodz, but rather indicates that they are not widely recognized, and for that reason they escape our perception.

This leads to the conclusion that cultures that are not fully recognized in cognition become, to some extent, neglected in perspectives on cultural diversity, even if they actually occupy prominent positions in the linguistic landscape. For the same reason, cultures *subjectively recognized as important* not only tend to occupy higher positions in cognitive representations of cultural diversity, but are more easily discernable for us in the surrounding linguistic reality. This conclusion goes along the lines of Piaget's theory of schemata (Inhelder and Piaget 1958), Papert's theory of constructionism (Harel and Papert 1991), constructivistic assertions that learning is based both upon experience of external objects and former knowledge (Jonassen 1991). It is also congruent with recent developments of cognitive science on the level of mental construal of distant and near phenomena (Trope and Liberman, 2010).

Certainly, the above observations are too limited (short time, low number of participants, small area of exploration) to indicate any general cognitive schemas that pertain to cultural diversity perception or any quantitative/qualitative evaluation of the cultural diversity in Lodz. The activities merely evidenced that there exists an observable discrepancy between the subjective predictions and the objective reality revealed through hands-on empirical examination. This fulfils the aim of activities, which were intended to demonstrate that awareness of local cultural diversity depends on personal perspectives and stereotypes.

When the above observations were summarized in the final discussion, the participants admitted that their awareness of the local cultural diversity had changed. Such broadening of cultural diversity awareness is a sound starting point for further intercultural competence development. As pointed out by Deardorff (2006, p. 255) attitudes of openness, respect, curiosity and discovery for acquiring and processing knowledge about

other cultures are fundamental to the development of the much desired *internal outcomes* of intercultural competence.

## 7. CONCLUSIONS

A combination of linguistic landscape methodology with mobile learning provides empirical evidence on the variety of languages that are becoming locally relevant in the increasing cultural diversity of the globalizing world. What is particularly valid in the application of mobile learning to the investigation of local cultural diversity is the resulting contextualization of learning (Biggs 2003). Such an in-the-field exploration of the linguistic landscape as discussed in this paper provides authentic environmental cues for better understanding of the cultural diversity phenomenon. As demonstrated in this research the contextualization of learning is achievable to a much greater extent with mobile learning than would ever be possible with the traditional teaching or desk-bound e-learning. The research also demonstrates that mobile learning creates new forms of acquiring knowledge through tasks built around data capture, location-awareness, and connected learning, which brings numerous tangible benefits usually attributed (JISC 2011) to m-learning:

- 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.

This study provides a ready made scenario of authentic, informal, situated m-learning activities in the framework of connectionism which can be employed for intercultural competence development. It demonstrates that it is not technology itself, but how we use it that is crucial for successful implementation of mobile learning in real-life educational settings (Traxler 2009). The use of mobile devices in the linguistic landscape approach adds another dimension to learning activities and expands their potential for applications in foreign language (and culture) teaching and learning practice. The study demonstrates how relatively unproblematic it is to employ mobile learning for an effective and entertaining learning experience. The next logical step in the research is to attest similar scenarios with other types of learning data, e.g. sound recordings, video streams, in other contexts and environments.

## REFERENCES

- Ally, M. (ed.), 2009. *Mobile Learning: Transforming the Delivery of Education and Training*. AU Press, Edmonton.
- Backhaus, P., 2007. *Linguistic Landscapes: A Comparative Study of Urban Multilingualism in Tokyo*. Multilingual Matters, Clevedon.
- Biggs, J., 2003. *Teaching for Quality Learning at University (2nd edition)*. Open University Press, Buckingham.
- Bransford, J. et al., 2000. *How People Learn: Brain, Mind, Experience, and School*. National Academy Press, Washington, DC.
- Brown, T., 2005. *Beyond constructivism: Exploring future learning paradigms*. Available at: [http://www.dreamland.co.nz/educationtoday/Tom\\_Brown\\_Beyond\\_Constructivism.pdf](http://www.dreamland.co.nz/educationtoday/Tom_Brown_Beyond_Constructivism.pdf)
- Byram, M. et al., 2002. *Developing the intercultural dimension in language teaching* Council of Europe, Strasbourg.
- Byram, M., et al., 2001. *Developing intercultural competence in practice*. Multilingual Matters, New York.
- CEDEFOP, 2009. European Centre for the Development of Vocational Training. *Skills for Europe's Future: Anticipating Occupational Skills Needs*. Office for Official Publications of the European Communities, Luxembourg.
- CEDRPC, 2006. Committee for Economic Development Research and Policy Committee. *Education for global leadership: The importance of international studies and foreign language education for U.S. economic and national security*. Committee for Economic Development, Washington, DC.
- Deardorff, D.K., 2004. *The Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization at Institutions of Higher Education in the US*. Doctoral dissertation. NCSU, Raleigh, NC.
- Deardorff, D.K., 2006. 'Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization'. *Journal of Studies in International Education*, 10 (3), pp. 241-266.
- Deardorff, D.K., (ed.), 2010. *The SAGE Handbook of Intercultural Competence*. SAGE Publications, Los Angeles.

- Deardorff, D.K., and Hunter, W., 2006. 'Educating global-ready graduates'. *International Educator*, 15(3), 72–83.
- Donovan, M. S. et al., 1999. *How People Learn: Bridging Research and Practice*. National Academies Press, Washington, DC.
- Extra, G., and Gorter, D. (eds.), 2008. *Multilingual Europe: Facts and Policies*. Mouton de Gruyter, Berlin.
- Gorter, D., 2006. Further Possibilities for Linguistic Landscape Research. In: D. Gorter (ed.) *Linguistic Landscape: A New Approach to Multilingualism*, Multilingual Matters, Clevedon, pp. 81-89.
- Gorter, D., et al. (eds.), 2012. *Minority Languages in the Linguistic Landscape*. Palgrave Macmillan, Hampshire.
- Harel, I., and Papert, S. 1991. *Constructionism*. Ablex, Norwood, NJ.
- Hulstrand, J., 2008. 'Building a fluent workforce'. *International Educator*, 17(5), pp. 24–31.
- Inhelder, B., and Piaget, J., 1958. *The growth of logical thinking from childhood to adolescence: An essay on the construction of formal operational structures*. Routledge, London.
- JISC, 2011. JISC InfoNet. *Mobile Learning infoKit*. JISC Advance, UK.
- Jonassen, D.H., 1991. 'Evaluating constructivistic learning'. *Educational Technology*, 31, pp. 28-33.
- Kukulska-Hulme, A., 2010. 'Mobile learning as a catalyst for change'. *Open Learning: The Journal of Open and Distance Learning*, 25(3), pp. 181–185.
- Kukulska-Hulme, A., and Traxler, J., 2007. 'Designing for mobile and wireless learning'. In: H. Beetham and R. Sharpe (eds.) *Rethinking Pedagogy for a Digital Age: Designing and Delivering E-Learning*. Routledge, London.
- LACE, 2006. Languages and Cultures in Europe. *Study of the intercultural skills taught in foreign languages courses at each stage of compulsory education and training in the European Union*. Final Report. EAC/25/06, 14 Dec 2006.
- Landry, R., and Bourhis R.Y., 1997. 'Linguistic landscape and ethnolinguistic vitality: An empirical study'. *Journal of Language and Social Psychology*, 16(1), pp. 23–49.
- Lave, J., and Wenger, E., 1991. *Situated learning: Legitimate peripheral participation*. CUP, Cambridge.
- Livingstone, D.W., 2001. Adults' Informal Learning: Definitions, Findings, Gaps and Future Research. Available at: <https://tspace.library.utoronto.ca/bitstream/1807/2735/2/21adultsinformallearning.pdf>
- RHLEFM, 2008. Report of the High Level Expert Forum on Mobility. *Making learning mobility an opportunity for all*. Available at: [http://ec.europa.eu/education/doc/2008/mobilityreport\\_en.pdf](http://ec.europa.eu/education/doc/2008/mobilityreport_en.pdf)
- Sharples, M., 2007. 'Mobile Learning: Small devices, Big issues'. In: M. Sharples et al. (eds.) *Technology-Enhanced Learning, Part IV*.
- Shohamy, E., and Gorter, D. (eds.), 2009. *Linguistic Landscape: Expanding the Scenery*. Routledge, London.
- Shohamy, E., et al. (eds.), 2010. *Linguistic Landscape in the City*. Multilingual Matters, Bristol.
- Siemens, G., 2004. *Connectivism: A learning theory for the digital age*. Elearnspace. Available at: <http://www.elearnspace.org/Articles/connectivism.htm>
- Spitzberg, B.H., and Changnon, G., 2010. 'Conceptualizing Intercultural Competence'. In: D. Deardorff (ed.) *The SAGE Handbook of Intercultural Competence*. SAGE Publications, Los Angeles.
- Traxler, J. 2009. 'Current state of Mobile Learning'. In: M. Ally (ed.) *Mobile Learning: Transforming the Delivery of Education and Training*. AU Press, Edmonton.
- Trope, Y., & Liberman, N. (2010). Construal-Level Theory of Psychological Distance. *Psychological Review*, 117, 440–463.
- UNESCO, 2001. *Universal Declaration on Cultural Diversity*. UNESCO Records of the General Conference, 31st Session, Paris.
- UNESCO, 2005. *Convention on the Protection and Promotion of the Diversity of Cultural Expressions*. UNESCO Records of the General Conference, 33rd Session, Paris.
- Vavoula, G., and Sharples, M., 2009. 'Challenges in Evaluating Mobile Learning'. In: J. Traxler et al. (eds.) *Proceedings of the mLearn 2008 Conference*, University of Wolverhampton, pp. 296-303.
- Winters, N., 2006. 'What is mobile learning?' In: M. Sharples (ed.) *Big issues in mobile learning: Report of a workshop by the kaleidoscope network of excellence mobile learning initiative*. University of Nottingham, UK, pp. 5-9.