



115

# How do French Engineers Learn from their International Experience? A Dialogue between Engineers and Researchers

**C. Morace<sup>1</sup>**

Associate-Professor  
ENSTA Bretagne CNAM CRF  
Brest, France  
christophe.morace@ensta-bretagne.fr

---

**A. Gourvès-Hayward**

Associate-Professor  
Telecom-Bretagne  
Brest, France  
alison.gourves@telecom-bretagne.eu

---

**Conference Topic:** Gender and Diversity in Engineering Education

**Keywords:** Intercultural Learning, International Mobility, Challenges, Dialogic research.

For French and French-trained engineers, gaining international experience in an increasingly diverse and fluctuating world is posited as indispensable, at an institutional, national and European level. However, it is no longer taken for granted that the engineer will automatically develop both technological knowledge and intercultural and linguistic skills through this international experience. The ideal of transforming students' international experience into "international connectivity, social cohesion and intercultural learning" has not generally been achieved (De Vita 2005). Many international studies show numerous barriers to the positive experience of study abroad, such as financial, linguistic or academic difficulties, high stress levels, problems of cross-cultural adaptation and social isolation. (Murphy-Lejeune 2003; Coleman 2007; Dunne 2009; Kinginger 2009; O'Reilly et al. 2010).

Many studies have also shown the pertinence of international experience and intercultural competence for practicing engineers (Ravesteijn et al. 2006). However, the success of international assignments can vary according to multiple factors at an individual, organisational and national level (Meier 2004; Browaeys & Price 2008). Individual differences include educational, generational and personality differences and differing levels of intercultural and communication skills (Thomas & Inkson 2003; Trompenaars & Voerman 2009).

<sup>1</sup> C. Morace, christophe.morace@ensta-bretagne.fr



As researchers in Intercultural Management and Communication, our main concern is the transformation of this practical experience into intercultural skills, attitudes and knowledge (Byram 1997; Demorgon 2010; Gourvès-Hayward & Morace 2010). Our previous research has shown that, without the necessary conceptual tools, both student and practicing engineers will gain more effective intercultural learning if faced with challenges and constraints. However, as we have seen, international experience may also end in disaster if the barriers and challenges are too demanding.

In this paper, we present the results of in-depth semi-structured interviews with 31 French engineers working as international trainers and 11 Francophone engineering students, following study abroad programmes in the UK and Ireland. Our first focus will be on how these engineers and future engineers narrate, interpret and give meaning to their experience and how this corresponds, or not, to our stance as researchers in Intercultural Management and Communication. Our final aim is to integrate the results of this dialogue between student engineers, engineers and researchers into our emerging intercultural learning model, in order to include the specificities and demands of the engineering profession. ■

## REFERENCES

- [ 1 ] De Vita, G. (2005), Fostering intercultural learning through a multi-cultural classroom, in Carroll J. and Ryan J. (eds) *Teaching International Students*. Routledge, Oxford.
- [ 2 ] Murphy-Lejeune, E. (2003), *L'étudiant européen voyageur : un nouvel étranger*. Didier, Paris.
- [ 3 ] Coleman, J. (2007), *Study Abroad Research: Good Practices*. Multilingual Matters, Clevedon.
- [ 4 ] Dunne, C. (2009), Host Students' Perspectives of Intercultural Contact in an Irish University. *Journal of Studies in International Education*, Vol. 13, No.2 pp. 222-239.
- [ 5 ] Kinginger, C. (2009), *Language Learning and Study Abroad. A Critical Reading of Research*. Palgrave Kinginger, Basingstoke.
- [ 6 ] O'Reilly et al. (2010), The psychological and sociocultural adaption of short-term international students in Ireland. *Journal of College Student Development*, Vol. 51, No.5, p.584-598.
- [ 7 ] Ravesteijn W. et al. (2006), Engineering the future:the social necessity of communicative engineers. *European Journal of Engineering Education*, Vol. 31, No. 1, pp. 63-71.
- [ 8 ] Meier, O. (2004), *Management Interculturel*. Dunod, Paris.
- [ 9 ] Browaeyns, M.J., Price, P. (2008), *Understanding Cross-Cultural Management*. Prentice Hall, Harlow.
- [ 10 ] Thomas, D.C., Inkson, K. (2003), *Cultural Intelligence; People Skills for Global Business*. Berrett-Koehler, San Francisco.
- [ 11 ] Trompenaars, F., Voerman, E. (2009), *Servant-Leadership across cultures*. Infinite Ideas, Oxford.
- [ 12 ] Byram, M. (1997), *Teaching and Assessing Intercultural Communicative Competence*. Clevedon, Avon.
- [ 13 ] Demorgon, J. (2010), Complexité des cultures et de l'interculturel. *Contre les pensées uniques*. Anthropos Economica, Paris.
- [ 14 ] Gourvès-Hayward, A. & Morace, C. (2010), The challenges of globalization in French engineering and management schools: A multiperspectivist model for intercultural learning. *International Journal of Intercultural Relations*. Elsevier, Oxford, Saint-Louis, Singapore.