Affordances of ICTs: An environmental study of a French language unit offered at university level

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Abstract

This project investigates the integration of Information Communication Technologies (ICTs) into educational settings by closely looking at the uptake of the perceived affordances offered by ICTs by students enrolled in a French language course at Queensland University of Technology. This cross-disciplinary research uses the theoretical concepts of: Ecological Psychology (Gibson, 1979; Good, 2007; Reed, 1996); Ecological Linguistics (Greeno, 1994; Leather & van Dam, 2003; van Lier 2000, 2003, 2004a, 2004b); Design (Norman, 1988, 1999); Software Design/ Human-Computer Interaction (Hartson, 2003; McGrenere & Ho, 2000); Learning Design (Conole & Dyke, 2004a, 2004b; Laurillard et al. 2000); Education (Kirschner, 2002; Salomon, 1993; Wijekumar et al., 2006) and Educational Psychology (Greeno, 1994).

In order to investigate this subject, the following research questions, rooted in the theoretical foundations of the thesis, were formulated: (1) What are the learners’ attitudes towards the ICT tools used in the project?; (2) What are the affordances offered by ICTs used in a specific French language course at university level from the perspective of the teacher and from the perspective of language learners?; (3) What affordances offered by ICT tools used by the teacher within the specific teaching and learning environment have been taken up by learners?; and (4) What factors influence the uptake by learners of the affordances created by ICT tools used by the teacher within the specific teaching and learning environment?

The teaching phase of this project, conducted between 2006 and 2008, used Action Research procedures (Hopkins, 2002; McNiff & Whitehead, 2002; van Lier 1994) as a research framework. The data were collected using the following combination of qualitative and quantitative methods: (1) questionnaires administered to students (Hopkins, 2002; McNiff & Whitehead, 2002) using Likert-scale questions, open questions, yes/no questions; (2) partnership classroom observations of research participants conducted by Research Participant Advocates (Hopkins, 2002; McNiff & Whitehead, 2002); and (3) a focus group with volunteering students who participated in the unit (semi-structured interview) (Hopkins, 2002; McNiff & Whitehead, 2002).

The data analysis confirms the importance of a careful examination of the teaching and learning environment and reveals differences in the ways in which the opportunities for an action offered by the ICTs were perceived by teacher and students, which impacted on the uptake of affordances. The author applied the model of affordance, as described by Good (2007), to explain these differences and to investigate their consequences. In conclusion, the teacher-researcher considers that the discrepancies in perceiving the affordances result from the disparities between the
frames of reference and the functional contexts of the teacher-researcher and students.

Based on the results of the data analysis, a series of recommendations is formulated supporting calls for careful analysis of frames of reference and the functional contexts of all participants in the learning and teaching process. The author also suggests a modified model of affordance, outlining the important characteristics of its constituents.
Declaration by author

This thesis is composed of my original work, and contains no material previously published or written by another person except where due reference has been made in the text. I have clearly stated the contribution by others to jointly-authored works that I have included in my thesis.

I have clearly stated the contribution of others to my thesis as a whole, including statistical assistance, survey design, data analysis, significant technical procedures, professional editorial advice, and any other original research work used or reported in my thesis. The content of my thesis is the result of work I have carried out since the commencement of my research higher degree candidature and does not include a substantial part of work that has been submitted to qualify for the award of any other degree or diploma in any university or other tertiary institution. I have clearly stated which parts of my thesis, if any, have been submitted to qualify for another award.

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Publications during candidature


Publications included in this thesis

None

Contributions by others to the thesis

My supervisors, Dr Barbara Hanna and Dr Beatrice Atherton each contributed to the conception and design of the project as well as to editing the thesis.

Dr Michel Wauthion from the Université de la Nouvelle Calédonie contributed to the completion of the research project by enabling the online collaboration between Australian and New Caledonian students.

My colleague, Ms Michele Dennigan contributed to the thesis by proof reading and editing prior to submission.

Statement of parts of the thesis submitted to qualify for the award of another degree

None
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affordance, ICTs, action research, ecological linguistics, methodology of second/foreign language teaching

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FoR code: 2003, Language Studies, 15%
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## List of Abbreviations used in the thesis

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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>CALL</td>
<td>Computer-Assisted Language Learning</td>
</tr>
<tr>
<td>CMS</td>
<td>Course Management System</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td>L2</td>
<td>Second Language, language other than first language (L1 or ‘mother tongue’), learnt after L1</td>
</tr>
<tr>
<td>LMS</td>
<td>Learning Management System</td>
</tr>
<tr>
<td>SLA</td>
<td>Second Language Acquisition</td>
</tr>
<tr>
<td>QUT</td>
<td>Queensland University of Technology</td>
</tr>
<tr>
<td>UNC</td>
<td>University of New Caledonia/ Université de la Nouvelle Calédonie</td>
</tr>
<tr>
<td>ZPD</td>
<td>Zone of Proximal Development</td>
</tr>
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1.0 Introduction

The aim of this research project is to investigate the relationship between the affordances offered by Information Communications Technologies (ICTs), the learner and the teaching and learning environment of a Second/Foreign Language course at university level. The research uses the notion of affordance as a lens through which the integration of the technological artefacts in that course’s pedagogy is investigated and analysed.

With the rapid expansion of Information Communication Technologies (ICTs), questions of their integration into Second/Foreign Language curricula become more significant each year. Researchers and practitioners continue to explore the potential of ICTs, some authors suggesting that “current uses of technologies often do not take full advantage of the medium” (Conole & Dyke, 2004a, p. 121). Conole and Dyke are but two of many researchers raising questions about the ways in which new technologies are integrated into Second/Foreign Language programmes in order to promote learning. For instance, Chapelle (2001) argues that, from the perspective of Computer Applications in Second Language Acquisition (CASLA), the question of the optimal conditions for the use of new technologies in teaching and learning should be addressed by investigating the design of computer-assisted activities:

What is needed are theoretically and empirically based criteria for choosing among the potential design options and methods for evaluating their effectiveness for promoting learners’ communicative L2 [second language] ability. (p. 42)

Another prominent researcher, Uschi Felix (2007), reporting on her study which investigated the effectiveness of ICT tools, draws attention to the importance of correlating the perception of the task, attitudes towards ICT tools and degree of project integration. This masters’ project is an attempt to respond to these calls by investigating the ways in which French language students, enrolled in a unit at university level, used a set of ICT tools selected by their teacher.

Calls for more research on the application of ICTs in the Foreign/Second Language context are not new: with each new technological artefact, the same questions about innovative ways of integrating the tool come to the fore. Educational institutions have always welcomed the application of new technologies. Cuban (1986, 1993) conducted a study on the implementation, from 1920 until the late twentieth century, of new technologies into classrooms in the United States of America. The author concludes that new technologies have always been received with much enthusiasm and seen
as a means of revolutionising teaching and learning. Cuban further observes that the “blue-sky promises of the new technology” (Cuban 1993, p. 187) always end up in some kind of disenchantment which, with time, transforms into a ‘normalisation’ phase, after which the emergence of another new technology once again stimulates a phase of excitement.\(^1\)

While Cuban’s comments apply to education in general, this cycle of high hopes, disenchantment and normalisation also occurs within the domain of Second/Foreign Language teaching and learning (Bax, 2003, 2011; Salaberry, 2001). Reflecting on the use of new technological artefacts in Second/Foreign Language teaching, based on the analysis of research articles published in *The Modern Language Journal* from 1916 to the present day, Salaberry (2001) argues that the new technologies, although “revolutionary in the overall context of human interaction” (p. 39) have not been able to achieve a similarly decisive degree of “pedagogical benefit in the realm of second language teaching” (p. 39). Therefore, in the same study Salaberry identifies the question of the successful integration of new technologies into the curriculum as one of four main streams of research into the pedagogical effectiveness of different technologies.

Today's educational institutions, fully aware of the importance of the use of ICT tools for learning and teaching, are becoming more technologically advanced and better equipped. The requirement of being technologically advanced is particularly salient in the case of higher education institutions. For instance, the “Horizon Report: 2012 Higher Education Edition”, a collaborative effort produced by New Media Consortium and the EDUCAUSE Learning Initiative identified “technologies to watch” (p. 3): six emerging technologies or practices that “are likely to enter mainstream use with their focus sectors within three adoption horizons over the next five years” (p. 3). Although some of these technologies are already widely used (for example software applications and tablet computing), others might be used in more restricted ways (for instance in game-based learning, learning analytics), while yet others are in an early stage of development and are expected to be adopted within the next four to five years (for instance gesture-based computing, the Internet of things), the overall push for full integration of ICT tools into the educational context is unquestionable.

From the point of view of educators, one task is to assess to what extent the very nature of education has been transformed through the use of new technologies and how this transformation impacts on the processes of learning and teaching. For this reason, the main objective of this project is to help language educators to increase their understanding of the ways in which learners are using ICT tools available within the context of Second/Foreign Language teaching and learning and, if

\(^1\) The notion of normalisation will be discussed later in this section.
necessary, to provide some guidance for a more systematic integration of new technologies into their practice.

One important factor influencing change in the nature of education is the position of educators with respect to the challenges related to the implementation of new technological artefacts. In the literature examining the relationship between ICTs and education, there is evidence that while some variables have little impact on teachers’ attitudes towards new technologies (Cuban, 1999, 2001), others, such as lack of time or limited resources, can be more significant and influence the integration of ICT tools (Egbert, Paulus & Nakamichi, 2002). For instance, Cuban, the author of *Oversold and Underused: Computers in the classroom* (Cuban, 2001) in this work on implementation and use of ICTs within education in the United States of America observes that, contrary to frequent and over-hasty suggestions, neither gender, age, length of service, attitudes to technology (technophobia/technophilia) nor lack of teachers’ formal training constitute roadblocks to the use of computers in the classroom. For example, Cuban reports that a very high percentage of teachers are frequent users of computers at home, using them for class preparation, writing exams, searching for information and research (Cuban, 1999; 2001). The author of this masters project agrees with Cuban and not only rejects such precipitate conclusions about what educators’ positions might be, but has also undertaken the task of investigating them. For this reason, one of the analytical foci of this project is that of the frames of reference of all participants in the learning and teaching processes, including students.

Since it is widely claimed in the literature that all three elements, teachers (Cuban, 1999; 2001; McGee & Diaz, 2007), students (Oblinger & Oblinger, 2005; Oliver & Goerke, 2007) and higher education institutions (McGee & Diaz, 2007) are frequent users of computers, one might expect that the implementation and use of new technologies in an educational setting should not constitute any difficulty and, indeed, should run smoothly. However, the development of ICTs has profoundly influenced the teaching and learning environment; on the one hand, by demanding that educational institutions modify their practices (for example, by changing how teaching and learning are managed, introducing innovative pedagogy, providing ongoing support) and, on the other hand, by creating the potential to promote students’ critical engagement (Moore et al. 2008, pp. 5-6). These researchers strongly argue that, within the context of Computer-Assisted Language Learning (CALL), questions regarding theoretical background, pedagogical approaches and methodology need to be re-formulated from the perspective of a new, technology-enriched, environment.

As research on online language learning has advanced, the interest of researchers within the field of CALL has shifted from, in Bax’s terms, *Restricted CALL* - an early stage of CALL focusing
on the efficiency of computer-generated activities for the acquisition of language features – to *Open CALL* – focusing on the communicative context of telecollaboration (Bax, 2003). More recently, within the domain of *Open CALL*, the importance of the co-construction of contexts by learners taking part in intercultural, telecollaborative activities has come to be a subject of interest for researchers (Belz, 2002, 2003, 2005; Belz & Thorne, 2006; Furstenberg, Levet, English & Maillet, 2001; Kern, Ware & Warschauer, 2004; Kötter, 2003; Kramsch & Thorne, 2002; O’Dowd, 2003, 2005; Ware & Kramsch, 2005; Ware & O’Dowd, 2008). According to Bax (2003), 21st Century CALL is at its integrative stage (*Integrated CALL*), that is, the stage of *normalisation* of practice by completely integrating ICT tools into language learning programmes. In 2003, Bax understood *normalisation* as:

> [T]he stage when a technology is invisible, hardly even recognised as a technology, taken for granted in everyday life. [… O]ne criterion of CALL’s successful integration into language learning will be that it ceases to exist as a separate concept and field of discussion. CALL practitioners should be aiming at their own extinction. (p. 23)

Eight years later, Bax (2011) in his article “Normalisation Revisited: The Effective Use of Technology in Language Education” revised and redeveloped the concept of *normalisation* through the lens of neo-Vygotskyan sociocultural theory. Bax criticised the over-simplistic opinion, often expressed not only in mainstream media but also in scientific publications, that a technology is a ‘Sole Agent’ responsible for its successful integration into educational settings. He points towards the complexity of surrounding reality and states that the ways in which humans deal with new phenomena, either artefacts (including ICTs) or ideas, depend on many inter-connected elements. Based on this observation, Bax broadens the range of factors influencing the integration of ICTs into language learning:

Similarly, when we consider how technologies can become normalised in education in general and language education in particular, we must do so from a standpoint which allows us to take full account of as wide a range of social and other factors as possible. This in turn means that when we ask ourselves how a technology can become normalised, it is advisable to seek to answer that question in terms of a broader range of factors as opposed to a narrower one, taking account of a number of
interlocking factors, sociocultural as well as technical. (p.4)

In this article, Bax (2011, p. 7) describes the framework within which the act of using a technological artefact occurs. Such an act is: (a) culturally based; (b) a social process; (c) developed through communication; (d) understood through culturally formed settings, and (e) developed through assistance or instruction.

Further on in the text, Bax argues for establishing a ‘Research Program’ to support and promote normalisation when it is seen as desirable. In 2003 he was already calling for ethnographic studies to investigate exactly what is happening when CALL is used in a particular Second/Foreign Language teaching context. He concluded:

I argue that we need more in-depth ethnographic studies of individual environments to elucidate the relationship between the factors just mentioned. We also need action research in individual environments to identify barriers to normalisation and ways of overcoming them. (pp. 26-27)

His revised position on normalisation puts even greater emphasis on the need for a multidisciplinary approach to enquiry as the most effective way to meet current research challenges.

This masters’ thesis presents such a cross-disciplinary investigation, partially responding to Bax’s call from 2003, and partially anticipating his re-positioning formulated in 2011. The project uses the theoretical backgrounds of Ecological Psychology (Gibson, 1979; Good, 2007; Reed, 1996) and Ecological Linguistics (Greeno, 1994; Leather & van Dam, 2003; van Lier 2000, 2003, 2004a, 2004b), to inquire into the process of employing an ICT tool. In particular, the model of affordance, a key concept in such fields as Ecological Psychology (Gibson, 1979; Good, 2007; Reed, 1996), Design (Norman, 1988, 1999), Software Design/ Human-Computer Interaction (Hartson, 2003; McGrenere & Ho, 2000), Learning Design (Conole & Dyke, 2004a, 2004b; Laurillard et al. 2000), Education (Kirschner, 2002; Salomon, 1993; Wijekumar et al., 2006), Educational Psychology (Greeno, 1994) and Ecological Linguistics (van Lier, 2000, 2003, 2004a, 2004b) is used to look closely at the act of employing a technological artefact. An environment-focused approach has the potential to explore, in detail, the relationship between the teaching and learning environment, learners’ behaviour and the uptake of affordances within a defined context of a Second/Foreign language curriculum. Drawing upon the theoretical background of the thesis, the following research questions were formulated:
1) What are learners’ attitudes towards the ICT tools used in the project?
2) What are the affordances offered by ICTs used in a specific French language course at university level from the perspective of the teacher and from the perspective of language learners?
3) What affordances offered by ICT tools used by the teacher within the specific teaching and learning environment have been taken up by learners?
4) What factors influence the uptake by learners of the affordances created by ICT tools used by the teacher within the specific teaching and learning environment?

Responding to Bax’s call for multidisciplinary, more contextualised studies of particular learning and teaching environments, this longitudinal project attempts to describe and analyse the teacher-researcher’s experience in integrating technological artefacts into HHB066, a French language unit offered at Queensland University of Technology. Action Research procedures (Hopkins, 2002; McNiff & Whitehead, 2002; van Lier 1994) were chosen as the most appropriate research methods for this investigation. It is important to note that Action Research was later also recommended by Bax as the most suitable methodological approach for studies on integration of ICTs into pedagogy (2011):

Given the complexity of such social and educational settings, and the fact it is difficult to untangle the host of variables which can impact on the normalisation of a new technology, one approach might be an Action Research mode, in which the change agent seeks to implement a new technology by one mechanism, using one approach, and then carefully observes the impact of change, inviting contributions from stakeholders, and then attempting a further step in response. (p.12)

The author of this master’s thesis and Bax, although working independently, reached the same conclusion.

The data collection was conducted over three consecutive years from 2006 to 2008, within HHB066, a French language unit taught to students at Queensland University of Technology (QUT). The HHB066 cohort comprised students whose proficiency level in French could be described as at B1-B2 level, according to the Common European Framework of Reference for Languages (Council of Europe, 2001). The unit content comprised in-depth study of argumentation
across a range of areas (the arts, social issues, science and ethics, politics) and genres (argumentative essays, interviews, discussion forums, oral debates) and included an online collaboration between QUT students and their French-speaking peers from the University of New Caledonia (UNC). The primary objective of the online collaboration was to enhance the development of the students’ argumentation, collaboration and negotiation skills in French, as well as to augment those skills needed to use new technologies in an educational environment. Overall, within HHB066, students used a rich variety of both synchronous and asynchronous ICTs, amongst which the following three will be examined in this master’s project: the Blackboard Learning Management System (LMS), Wiki and online links.

Drawing upon the theoretical approaches adopted for the project, the data were collected using the following methods: (1) questionnaires administered to students (Hopkins, 2002; McNiff & Whitehead, 2002) using Likert-scale questions, open questions, yes/no questions; (2) partnership classroom observations of research participants conducted by Research Participant Advocates (Hopkins, 2002; McNiff & Whitehead, 2002); and (3) a focus group with volunteering students who participated in the unit (semi-structured interview) (Hopkins, 2002; McNiff & Whitehead, 2002).

1.1 Summary

In this introduction, the rationale for the project has been provided and the research has been contextualised within the field of Foreign Language Teaching Methodology. The next chapter reviews the relevant literature and will be followed by the Research Methodology in chapter three, which will explain, in detail, the methodological approach and instruments used to conduct the research, as well as providing an explanation of the project’s structure, including unit content, scheduled tasks, and the technological artefacts used. Next, the Data Analysis chapter will discuss the material gathered and present findings, including a detailed description of the elements comprising the three constituents of the model of affordance, the frame of reference, functional context and affordance. This will provide the basis for structuring a modified model of affordance in the final conclusion.
2.0 Literature review

This chapter will present and critique the current literature related to the project. Firstly, Ecological Linguistics and the concept of affordance, the theoretical background of this research, will be presented. Subsequently, the applications of this notion within the fields of CALL and methodology of teaching will be discussed.

2.1 The theoretical framework of Ecological Linguistics

The science of ecology developed within the field of biology in order to study the interrelations between living organisms (plants and animals) and their environments (Haugen, 1972). The term ‘ecology’ was chosen by German biologist Ernst Hackel in 1866 to “refer to the study of the relationships between an organism and all other organisms with which it comes in contact” (van Lier, 2004a, p. 128). The term and its domain of inquiry spread quickly among biologists and sociologists who extended the scope of research into the interrelations between human societies and their environments (Haugen, 1972). Haugen (1972) reported that, from the point of view of linguistics, the study of interrelations between language and its environment had been conducted for a long time within various fields, amongst which he counted psycholinguistics, ethnolinguistics, linguistic anthropology, sociolinguistics or the sociology of language. Since language had already been studied from these different angles, Haugen (1972) argued for research within one broad discipline – language ecology:

Language ecology may be defined as the study of interactions between any given language and its environment. [...] The true environment of a language is the society that uses it as one of its codes. Language exists only in the minds of its users, and it only functions in relating these users to one another and to nature, i.e. their social and natural environment. Part of its ecology is therefore psychological: its interaction with other languages in the minds of bi- and multilingual speakers. Another part of its ecology is sociological: its interaction with the society in which it functions as a medium of communication. The ecology of language is determined primarily by the people who learn it, use it, and transmit it to others. (p. 57)

Since then, the concept of language ecology has been used in multiple areas of humanities such as Social Sciences (Bateson, 1979) Psychology (Gibson, 1979; Good, 2007; Reed, 1996), Human Development (Bronfenbrenner, 1979, 1993), Language Studies (Fill & Mühlhäusler, 2001; Haugen,
The proliferation of research and rising interest in an ecological perspective has allowed researchers to make an important distinction between ‘deep’ and ‘shallow’ ecology. ‘Shallow’ ecology resulted from an anthropocentric view of the world whereas ‘deep’ ecology promoted an ecocentric view of the nature of the world. Nowadays, research within the humanities is shifting from the anthropocentric view of the world towards an ecocentric or geocentric view. What is the difference and why it is important for language studies?

2.1.1 An anthropocentric versus an ecocentric view of the world: different views of the nature of knowledge

The anthropocentric perspective, a direct heir of Descartes’ rationalism, sees mankind and human activity as a centrepiece of the living world. Humankind has the natural right to subjugate, control and exploit all earthly resources. Fettes (2003), writing from the position of a naturalist theory of language acquisition, stressed the importance of such a perspective for theories of human cognition and development of knowledge. From the Cartesian, rationalist, perspective, human knowledge is defined as “unshakable conviction” (Newman, 2005 n.p.) and cognition is entirely mediated by ideas which are “strictly speaking, the only objects of perception, or conscious awareness” (Newman, 2005, n.p.). Therefore, knowledge could be represented in the form of thought, which Descartes considered not as an act, but as ‘res cogitans,’ abstract substances of thoughts, which could fill the human brain.

By contrast, the ecocentric or geocentric perspective sees mankind as a part of a greater natural order, a complex living system, ‘Gaia’, the living earth (Capra, 1996; Fettes, 2003; Goldsmith, 1998; Reed, 1996; van Lier, 2004a). According to van Lier (2004a), Norwegian philosopher Arne Naess called the ecocentric perspective a deep ecology, in opposition to the shallow ecology which studies ways of controlling ecosystems and managing them.

Fettes (2003) explains that from the perspective of deep ecology, all species living in the environment (not only humans) achieve an ecological knowledge through processes of adaptation and modification over time. Knowledge is, therefore, achieved, not given. The researcher argues that a mind is an “integrative process of coordinating organism with environment” (p. 33) and is constantly “seeking for, interpreting and responding to adaptively significant forms of order in the world (p. 33). Drawing upon this point of view, ecological psychology sees the process of acquiring knowledge as a constant, dynamic, and historical discovery of an individual’s world through his/her
Fettes (2003) explains:

Knowledge […] consists in a range of potential capacities for engaging with the world that are rooted in an individual's phenotype, habitat and personal history. (p. 34, my emphasis)

From this perspective and contrary to the Cartesian tradition, knowledge is not a thought, an idea, but, rather, it is a potential capacity of an individual gained through interaction with the environment. Fettes (2003) explains that this potential capacity is mediated by the brain and not stored within it. Knowledge is, therefore, dynamic, labile and not static or rigid. He argues that knowledge, seen from this naturalist point of view, is active, realist and non-propositional. Active, because it results from a lifelong effort of each organism to construct meaning and value; realist, because it results from an interaction with the environment; non-propositional, because it exists independently of language. This key perspective of learning and language acquisition theory clearly demonstrates that learning is consequential, and highly interconnected with the environment. Fettes (2003) further argues:

In a very real sense, part of what we call “thinking” or “knowing” takes place outside us, in the cues our habitat provides to guide our awareness, or that we place there ourselves. Take the cues away and eventually the capacities that depend on them will be lost. (p. 24)

This conclusion has potentially significant consequences for theories of learning and, overall, for education. The importance of the environment is arguably much stronger than commonly thought. The relationship between the learner and the environment, seen from the ecological point of view, is dynamic, and it has, using a psychological term, a mutualist character. Good described a mutualist perspective on psychology as one in which “mind, body and environment cannot be understood in isolation, but are constructions from the flow of purposive activity in the world” (Good 2007, p. 269). From this point of view the environment shapes the learner’s knowledge as much as the learner shapes his/her environment.

The previous chapter (section 1.0) described the effects of environmental change on pedagogy as related to the introduction of ICTs. It has been observed that advances in technology produce changes in the teaching and learning environment, for example, by pushing for redesign of
learning spaces. These changes influence pedagogy, which adapts to the new environment by integrating ICTs into teaching and learning practices. Such integration requires educators to re-think their pedagogy. In short, change is circular and bidirectional. The environment forces changes in pedagogy and pedagogy forces changes in the environment. If the environment shapes the learner’s knowledge as much as the learner shapes his/her environment, then research investigating the relationship of affordances offered by ICT artefacts and their uptake by learners has the potential to contribute to the development of methodologies of teaching.

2.1.2 An ecological approach to the process of language learning (including Second and Foreign Language learning)

The ecological perspective on language acquisition and language learning, known as Ecological Linguistics, sees the act of human learning as a complex process that occurs at three interrelated and interdependent levels: cognitive, social and environmental (Dong-Shin, 2006; van Lier, 2004a, 2004b). Within this domain, the main objective of research is to develop a broad methodology that focuses on human activity within the environmental context of the classroom. This perspective sees the process of language learning as a unity composed of four core elements (van Lier, 2004b): (1) perception and action in semiotic contexts (in short – the phenomenon of affordance); (2) the emergence of linguistic abilities in meaningful activity; (3) the dynamics of social interaction; and (4) the quality of the educational experience.

2.1.2.1 The concept of affordance


It was Gibson who, writing on the psychology of the visual perception of motion and movement, first developed a new theoretical perspective on the relationship between action and perception, underlining the importance of information available in the environment (Greeno, 1994). From an ecological point of view, perception and action are related and they form a unity (Gibson, 1979). Gibson rejects the predominant dichotomy of external-physical and internal-mental processes. Instead, he suggests an interactionist alternative which concentrates on agent-situation interactions. Perception, inseparably tied to an action, is composed of both exteroception and proprioception. While exteroception is directed outside the body and is understood as perceiving
phenomena that are external to one’s body, proprioception is directed inside oneself and means perceiving oneself and one’s actions. Both modalities are united and they create affordances. Therefore, affordances are bi-directional, being directed towards both the perceiver and the environment. Greeno (1994), also a psychologist, reporting on Gibson’s view on affordances writes:

In any interaction involving an agent with some other system, conditions that enable that interaction include some properties of the agent along with some properties of the other system. [...] The term affordance refers to whatever it is about the environment that contributes to the kind of interaction that occurs. One also needs a term that refers to whatever it is about the agent that contributes to the kind of interaction that occurs. I prefer the term ability [...] for that concept. (p. 338)

Affordances and abilities (or effectivities or aptitudes) are, in this view, inherently relational. An affordance relates attributes of something in the environment to an interactive activity by an agent who has some ability, and an ability relates attributes of an agent to an interactive activity with something in the environment that has some affordance. The relativity of affordances and abilities is fundamental. Neither an affordance nor an ability is specifiable in the absence of specifying the other (Greeno, 1994).

How does the concept of affordance relate to teaching and learning? The following diagram (Figure 1) illustrates van Lier’s (2004a) view of the relationship between affordance and context:

![Figure 1: The affordance in context](van Lier 2004a, p. 96).

Reflecting on the concept of affordance within the context of language learning, van Lier (2004a) writes:

Affordances are those relationships that provide a ‘match’ between something in the environment (whether it’s a chair or an utterance) and the learner. The affordance fuels perception and activity, and brings about meanings – further affordances and signs, and further high-level activity as well as more differentiated perception. (p. 96)
Language learning heavily depends on the way in which the learner, an active participant, learns how to perceive language through a meaningful activity. Affordances allow the learner to improve his/her linguistic abilities by acting and interacting within the linguistic environment. Although interesting and stressing the importance of the relationship between the learner and learning environment, this description does not provide an explanation of the process of ‘matching’ between learner and the environment. More recently, Good (2007) has explained in more detail the concept of affordance from the psychological perspective, as a unit of analysis that should be seen as being “nested” (Good 2007, p. 277) within the broader concept of functional context. The functional context is also included in a broader concept – the frame of reference. The diagram below (Figure 2), represents the teacher-researcher’s interpretation of the concept of affordance developed by Good:

![Diagram](image)

**Figure 2:** The teacher-researcher’s interpretation of the notion of affordance as developed by Good.

Good uses the example of himself standing on a chair to reach for a book from a bookshelf to illustrate the concept of affordance. According to Turvey, in Good, an affordance is constructed on “intrinsic rather than extrinsic measures” (Good, 2007, p. 277). In this example, on the one hand, the intrinsic measures or capacities of a chair are its physical properties allowing someone to stand on it (the legs of the chair, the horizontal sitting area). On the other hand, the intrinsic measures (or abilities, using the Gibsonian term) or capacities of the researcher willing to reach for a book, are his size, weight, or sense of balance. Therefore, according to Good, his frame of reference is established by the physical presence of both the researcher and the object (a chair), and by their intrinsic properties. But a chair is also a cultural artefact, a fact that makes some affordances more salient than others for members of culture familiar with this artefact. Hence, the frame of reference is established also by cultural properties of the artefact (chair) and the cultural identity of the
researcher. From Good’s perspective the functional contexts of this situation are “reaching up to get a book” and “being a university lecturer” (Good, 2007, p. 277). In other words, according to him, the functional context contextualises a specific situation. The above-mentioned affordances, along with the lecturer’s abilities (related to his size, height, sense of balance and allowing him to perform certain actions), make an action possible.

This complex structure of affordance as a potential for an action created within a particular environment is mirrored within the social context. In social interactions, such as those in a Second/Foreign Language classroom for example, a gesture or an utterance offers an affordance which can be taken up by an agent through interaction in which he or she engages. Language learning heavily depends on the way in which the student, an active participant, acquires knowledge on how to perceive language through a meaningful activity. Affordances allow the learner to improve his/her linguistic abilities by acting and interacting within the linguistic environment.

Affordances may vary depending on the artefact and on the environment within which it is used (Hutchby, 2001). For instance, different ICTs offer different potentials for an action influencing, even restricting (Hutchby, 2001), ways of employing technological artefacts. In his analysis of communicative affordances, Hutchby observes that “affordances may thus differ from species to species and from context to context. However, they cannot be seen as freely variable” (Hutchby, 2001, p. 26). Affordances, then, are to some extent limited by the nature of an artefact (in the case of this study an ICT tool) and the context within which it operates (frame of reference in conjunction with functional context). The role of humans (students, teachers) is to discover what they can do with, through and around artefacts. But this binary relationship between users and artefacts is also bidirectional. This means that artefacts, via their affordances, have the potential to influence their users (Kress 2003).

In the context of this research project, on the one hand, the ICTs used by the teacher-researcher offer a certain range of affordances to the user-learners. On the other, these user-learners, students at an Australian university, are part of a generation which already has significant experience with ICT tools within both non-educational and educational contexts. Therefore, this experience conditions their perception of affordances and, in turn, their uptake of them.

It is important to recognise that, so far, mutual influence has been studied to a limited extent and, therefore, there is a dearth of relevant literature. Within the domain of CALL, the notion of affordance, defined very broadly as a potential for an action (any action: intercultural, linguistic), has been studied mainly with regard to the intercultural implications of social interaction via the Internet such as telecollaboration (Belz, 2002, 2003, 2005; Belz & Thorne, 2006; Furstenberg et al.,
Nevertheless, an interesting contribution to the discussion regarding the relationship and mutual influence between all participants in the teaching and learning process assisted by ICT tools has been made by Thorne (2003) in his article ‘Artifacts and cultures-of-use in intercultural communication.’ He points to the discrepancy between educators’ choices of ICT tools used for enhancing learning and learners’ perceptions of the usefulness of these tools. The failure to take the learners’ generational shift into account might result in an inadequate choice of ICT tools and, in consequence, lead to the disruption or failure of communicative activities, and, therefore, of learning. Reflecting on the importance of experience in using ICT tools, Thorne (2003) writes:

[…] Internet communication tools are not neutral media. Rather, individual and collective experience is shown to influence the ways students engage in Internet-mediated communication with consequential outcomes for both the processes and products of language development. (p. 38)

This observation emphasises the importance of ICT tools, their choice, their usefulness for educational purposes and their use within a particular set of teaching and learning conditions. If ICT tools are not neutral media for the processes of teaching and learning, then their nature and the impact they have on teaching and learning should be investigated. In other words, research should explore inquire about the affordances created by the ICT tools commonly used for teaching and learning, and their perception by those who make choices to include them in teaching (educators) and those who are impacted by those choices (learners).

2.1.2.2 Emergence

The second constitutive element of the process of language learning described from the perspective of Ecological Linguistics, and relevant to this thesis, is the emergence of linguistic abilities in meaningful activity. The notion of emergence is closely related to that of affordance because its focal point is the development of complex linguistic abilities (van Lier, 2004a). The section below will explain the notion of emergence.

From the perspective of Gestalt psychology, the whole is not only bigger than the sum of its parts, but it is also more intelligent. In the natural environment emergence occurs when simple structures (organisms, elements) at a lower level of development come together and collectively produce higher, more sophisticated systems. A classic example that illustrates this view, often
quoted in the literature, is a colony of ants (Johnson, 2001): one ant has limited potential, but together they are able to construct impressive structures.

In language studies, researchers from various domains of linguistics have described examples of emergence that can be observed throughout different stages of development of children’s language, such as the emergence of the phonological system (van Lier, 2004a). Van Lier (2004a) concludes that, in general, it is possible to say that any natural language “is emergent, not fixed, in flux rather than static” (p. 85). Furthermore, this development does not happen at a steady pace, but suddenly, interspersing periods of stability with change, rearranging linguistic resources and skills (van Lier, 2004b).

The awareness of the existence of the phenomenon of emergence has important consequences for language learning and teaching (including that of a Second/Foreign Language), such as the choice of delivery mode, teaching method or improved communication with a learner. For instance, from the emergentist perspective, grammar is not a prerequisite of communication, but it is, rather, a byproduct of communication (Hopper, 1998). Thus, grammaticalization (the acquisition of grammar), is a result of both cognitive and social activities that use language in a meaningful manner within appropriate environmental settings.

The phenomenon of emergence may also impact on the integration of ICT tools in the classroom. Let us summarize. Emergence includes the development of linguistic abilities, and the final act of the process of emergence – the acquisition of linguistic features – seems to occur quickly (instantaneously). The teaching and learning environment influences the choice of pedagogy, which should facilitate the process of learning. The environment is filled with ICT tools, each of which offers affordances; potentials for an action. Therefore there should be a link between affordances and emerging knowledge. The more affordances are taken up by a learner, the more opportunities for acquiring knowledge are created. However, from an educational perspective, not all affordances allow academic learning. For this reason, the choice of ICT tool used in a learning activity should be preceded by pedagogical decisions regarding the targeted learning outcomes. Normalised CALL (Bax, 2003, 2011), by employing technology-enhanced learning activities, arguably creates opportunities for affordances to be taken up and, thereby enhances the potential for the emergence of knowledge, including linguistic knowledge.

2.1.2.3 The dynamics of social interaction

As with the two preceding concepts – affordance and emergence – the dynamics of social interaction also influence the choice of teaching method and of ICT tools to be integrated in the curriculum. An important outcome of research on social interaction comes in the form of two
further concepts; the zone of proximal development and pedagogical scaffolding, which warrant a closer look from the perspective of Ecological Linguistics.

2.1.2.3.1 Zone of Proximal Development from the perspective of Ecological Linguistics

According to Vygotsky’s view on child development, the zone of proximal development (ZPD) is the difference between the actual developmental level of the child and the potential level that child is capable of achieving when working in collaboration with more capable peers. Vygotsky (1978) explains:

It is the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (p. 86)

Van Lier (1996) reinterprets the concept through the lens of pedagogical needs and practices. Figure 3, below, represents his modified concept of the ZPD or, rather, of multiple zones of proximal development:

![Multiple zones of proximal development](image)

**Figure 3**: *Multiple zones of proximal development* (van Lier 1996, p. 194).

In van Lier’s opinion, with the development of the child, the number and the nature of resources to which he or she turns, change. With time, it is no longer only a more capable peer or adult who can assist the learner to achieve a higher level of development by skilfully creating a scaffold for him or her. Other resources, such as interaction with equal peers, interaction with less capable peers, as well as inner resources, can also fulfil this role. Interestingly, van Lier did not include tools used for
delivering the content of a unit or curriculum. From the perspective of affordances, interaction with tools (in this case ICT tools) should also be included in this model. As previously discussed, the interaction which the learner maintains with tools is bidirectional. If the learner influences the environment, then the environment influences the learner. This leads to the notion of pedagogical scaffolding.

2.1.2.3.2 Pedagogical scaffolding

Scaffolding can be broadly defined as the expert support and advice a less capable peer receives during interaction with more capable peer(s). Van Lier (1996) reports that the concept of scaffolding within the context of the classroom was initially explored from the perspective of one-on-one interaction between a teacher and a student and then shifted towards small-group activities, while the interest in bigger, whole-class groups began in the late 1980s and early 1990s.

One of the most vital questions relating to pedagogical scaffolding concerns identifying the moment at which the scaffolding should be introduced. Is it in the preparatory phase of structuring of the activities or, rather during the interaction between the learner and the interlocutor? Considering the variety of resources that the student can access and that have an impact on performance, the response to this question is not evident. Van Lier (2004b) believes that, while in recent years pedagogical scaffolding has been associated with the preparatory phase of conceptualising and structuring of activities, it should be relocated to the process of interaction. This idea developed from the work of Bruner & Sharewood (1975) on the scaffolding process for small children. In van Lier’s (2004b) opinion, scaffolding takes place “not in the predictable, recurring structure of activities, but in the unpredictable, novel behaviours of learners” (n.p.).

From this perspective, the process of scaffolding, which also applies to language learning, including Second/Foreign Language, should occur in interaction between all elements constituting the process of language learning. Within a technology-enriched environment, both the nature and the quality of the interaction change. The context of contemporary, networked learning environments with ICTs integrated into the teaching programme affects the dynamics of interaction which become more complex. Multiple scenarios are possible: teacher-students; student-student; teacher-technology-student; student-technology-teacher; student-technology-student; student-technology (for example checking the meaning of a word in an online dictionary, playing language games online); student-technology-external world (for instance reading newspapers online). Within the context of this project interactions are shared between various social agents taking part in the learning process (learners, teacher, overseas native-speaking peers and, sporadically, overseas tutor) and ICT tools used to deliver the unit. The question remains whether, and to what extent,
technological artefacts provide (expert) support and advice for students’ learning and in this way participate in the process of scaffolding. In other words, does, and how does, an interaction with technological artefacts assist with students’ learning? The current research project attempts to shed some light on this problem.

2.1.2.4 The quality of the educational experience

According to Ecological Linguistics, the quality of the educational experience constitutes the “central construct” (van Lier, 2004a, p. 5) to be analysed and researched. Within this context, the term ‘quality’ is not synonymous with the term ‘standard’. As Naess (in van Lier, 2004a) observes, quality of life does not equal standard of living. The same observation applies to the quality of educational experience. Quality is the degree to which an educational experience achieves its excellence. Quality can neither be equated with standards, nor measured by the results of standard tests conducted by institutions. In other words, quality does not depend on a uniform, standard approach to various aspects of teaching and learning (such as generic teaching evaluations); it depends on a more focused approach, one that takes into consideration the characteristics of a particular cohort of learners within their specific environment. Only such an approach can promote excellence in learning and teaching. One of the most important challenges for education is to create an environment that promotes excellence by actively encouraging creativity, variety and diversity (van Lier, 2004a, 2004b). Increasingly, it has been suggested that such a requirement can be fulfilled by creating an environment full of new technological artefacts.

In sum, the quality of an educational experience depends on various factors, including the environment within which the learning process takes place. As shown above, from the perspective of Ecological Linguistics, the role of the environment for the process of language learning, including Second/Foreign Language learning, is crucial. This contention emphasises the importance of ICT tools, their choice, their usefulness for educational purposes and their use within a particular set of teaching and learning conditions. If, as stated above, the quality of an educational experience is tightly linked to the educator’s awareness of both learners’ attributes and the characteristics of the educational environment, the investigation of affordances offered by the ICTs integrated in the curriculum should shed some light on the process of providing good quality learning experiences within technology-rich environments.
2.2 Summary

We are living in a constantly changing environment. This situation should force teachers to constantly re-think their pedagogical philosophy. Currently, the attention of many researchers is shifting towards the relationship between the environment and the participants in the teaching and learning process. This chapter has discussed Ecological Linguistics as the theoretical background for research investigating this type of interaction. Firstly, an overview of the key concepts of Ecological Linguistics was presented, followed by an outline of an ecological approach to the process of language learning. The model of affordance, as developed by Good (2007), was then introduced and discussed; this will be applied later in this work to analyse the data collected over a period of three years. Finally, the importance of the successful integration of ICTs for the creation of a good quality educational environment has been emphasised.
3.0 Research methodology

This work responds to the need for more practice-oriented research which describes the experience of integrating ICT tools into Second/Foreign language programmes. The necessity for such research has been discussed in the previous chapters and the importance of the teaching and learning environment as an object of research to complete such a project has also been established. Thirdly, the following research questions have been introduced: (1) What are the learners’ attitudes towards the ICT tools used in the project?; (2) What are the affordances offered by ICTs used in a specific French language course at university level from the perspective of the teacher and from the perspective of language learners?; (3) What affordances offered by ICT tools used by the teacher within the specific teaching and learning environment have been taken up by learners?; and (4) What factors influence the uptake by learners of the affordances created by ICT tools used by the teacher within the specific teaching and learning environment?

The multi-disciplinary nature of the project required methods which would provide a flexible set of research tools that could be changed or modified, if necessary. For instance, of the many available research techniques, a questionnaire was considered an appropriate tool due to its familiar, straightforward format well known to all students and its nature as a timesaving, low human-engagement application providing the opportunity to target a specific cohort of respondents. More importantly, it provided the opportunity to find differences between perceptions of affordances by teacher-researcher and learners, by directly asking questions related to students’ attitudes towards the ICTs used over the semester. However, questionnaire responses can sometimes lack precision, be ambiguous or off-topic. In order to overcome shortcomings of this method, a focus group was introduced. The teacher-researcher could thus clarify certain responses and discuss in detail some of the preliminary conclusions resulting from the first analysis of the questionnaire. Finally, in order to allow the teacher-researcher to gather data from multiple perspectives, which is so important for environment-focused research, a partnership classroom observation method was used. The advantage of this method rests with its ‘objective’ nature which provided the teacher-researcher with a chance to cross-examine her own observations and perceptions.

In order to make the best decision regarding the selection of research methods to be applied in the project, the teacher-researcher needed to position herself as a researcher and a teacher, or, in other words, needed to construct her own theory of practice (van Lier, 1996). As the teaching and learning environment constantly changes, so does the role of teachers. Advancing understandings of the theory of practice through classroom research, then, is one way for teachers to meet the
challenges this presents.

3.1 Theory of educational practice

Arguing in favour of involving teachers in research in order to create theories of educational practice, van Lier (1996) points out that such investigations could decrease the gap between academic discussion and classroom practice. Interested in the effects of the rapidly changing teaching and learning environment on learners and encouraged by van Lier’s writings, this teacher-researcher undertook the task of applying the theoretical background of Ecological Linguistics to nurture her understanding of the theory of educational practice within the context of the application of ICT tools in a foreign language course. Such a deepened awareness of educational practice can result in the construction of one’s own theory, as advocated by van Lier (1996). When emphasising the importance of developing the theories of educational practice by practitioners, van Lier (1996) argues:

Most importantly, the theory of practice, which addresses the full complexity of decisions and influences shaping practitioners’ work inside and outside classrooms, dissolves the oppositions and rigid distinctions between theory, research, and practice that are implied in much scientific work. It also neutralises the separation between object and subject, or scientific facts and moral values. (p. 29, italics in original)

The process of creating one’s own theory of educational practice requires a change in the perception of relationships between theory, practice and research. In Figure 4 below, van Lier (1996) presents some possible views of the relationships between the three elements:

![Figure 4: Different views of the relationships between theory, research and practice (van Lier 1996, p. 29).]

As a theory of practice, the third diagram is the ideal. It illustrates the constantly interacting and
bidirectional dynamics between research, theory and practice. Research not only informs theory and practice, but is also informed by them. Theory nurtures both research and practice. As for the latter, it fosters both research and theory. This process however is not circular, and research remains at the apex. This set of relationships is also the most balanced of all three models presented above; it demonstrates the potential for a harmonious collaboration between all three elements.

This project necessitated both a theoretical paradigm that would allow the author to conduct research on, broadly speaking, the ways in which technological artefacts were used in her French language unit, and an appropriate teaching methodology that would make possible the integration of ICTs into her teaching practice. Although research within the domains of Computer-Assisted Language Learning and Second Language Acquisition informs both theories of learning and the author's own practice, it is Ecological Linguistics (van Lier 2004a, 2004b) and, in particular, the notion of affordance as it is understood in the psychological context (Good, 2007), that provided the most congruent theoretical background for this project. Interested in the ways in which learners take up the opportunities for an action offered by particular ICTs, the teacher-researcher could draw on the theoretical framework of the model of affordance as the basis for her analysis to investigate the process of taking up (or not taking up, as the case may be) these opportunities. With each consecutive year of the case study, the relationship between theory and practice ‘tightened’ when designing and developing unit content and, in consequence, the teacher-researcher’s reflection on the nature of the model of affordance, its constituents, interdependencies and their role in the integration of technological artefacts in the curriculum, became more profound. By embracing research, theory and practice, the teacher-researcher was able to deepen her understanding of the issues that she encountered. In doing so, she could modify her teaching practices, participate in discussions about language education and, to a certain extent, consciously reshape the educational environment of the particular French language unit under study.

The construction of one’s own theory of educational practice can only be achieved by applying a research methodology that is able to provide answers to the researcher’s questions formulated on the basis of the theoretical background, in this case Ecological Linguistics, and investigated within a specific learning and teaching environment. The research practices associated with Action Research are recognised as a suitable methodology to be used in the field of Second Language Acquisition (SLA).
3.2 Action Research

Action Research, by involving both practitioners and researchers, or one person combining the roles of teacher and researcher, as in the case of this work, offers a triple advantage: it allows theoretical knowledge to be applied to (one’s own) practice; it encourages a practitioner’s research into (one’s own) actions, thus leading towards the development of a theory of practice.

Action Research is characterised by the following features: it is cyclical, longitudinal and always collaborative in nature (van Lier, 1994). Firstly, constant change and improvement, characterising this type of methodological approach, is a cycle of constant planning, taking action, reflecting and implementing change. Repeated over a period of time, Action Research allows spiral progress, where each new stage of the cycle builds on previous experience: “Action Research is traditionally depicted as a spiral consisting of cycles of several steps” (van Lier, 1994, p. 34). The graphic model of Action Research (Figure 5) below stresses the cyclical nature of this methodology.

![Cycles of Action Research](van Lier 1994, p. 34).

The current project follows these four steps, with each completed yearly stage informing changes to be made the following year. Still, as van Lier (1994) rightly points out, the reality of conducting Action Research can sometimes differ from the theory, and the cyclical order of the stages can vary.
for various reasons:

However, as anyone doing action research will soon find out, reality is a whole lot messier than that, and in practice the various stages will blend in with one another [...].

Rather than seeing planning, action, observation, and reflection in neat succession in a cycle, they will tend to occur whenever they are possible within the practical constraints of the work setting and other demands on your time. The important thing to remember is that all ingredients must occur in a balanced and carefully monitored way. (p. 34)

This was experienced in the current study, which did not always follow the model order of the cycles of Action Research. There were many variables that could not be fully controlled and the success of the project depended, in part, on the capacity to adapt to the changing environment. For instance, on some occasions, the planning phase overlapped with action. This was not caused by a lack of planning in the first instance, but by the need to react to an unpredictable environmental factor. To give a specific example of planning and action coinciding: when one of the teacher-researcher’s planned activities using Elluminate, a virtual classroom, had to be cancelled at short notice, due to a technical problem, it was replaced with another activity that also used ICT tools; the video recording of students (the video recording was then uploaded to the unit’s Blackboard site).

The second principal characteristic of Action Research is its longitudinal nature (van Lier, 1994). It is longitudinal, because it takes place over a period of time and “is a way of working in which every answer raises new questions, and one can thus never quite say ‘I’ve finished’” (van Lier, 1994, p. 34). The Action Research phase of this project was spread over a period of three consecutive years (from 2006 to 2008), with each stage influencing the changes implemented in the next. For instance, the research methods used for data collection were modified each year and expanded, from a simple questionnaire in 2006 to a questionnaire and class observations in 2007, to be replaced by a questionnaire and focus groups in 2008. This transformation of the project is just one example of continuous change and improvements resulting from the longitudinal nature of Action Research.

Finally, Action Research is collaborative, because it requires assistance not only in applying

2 Further examples will be seen in later discussion.
Action Research techniques, such as class observations or interviews, but also in developing the research in the first instance. Van Lier (1994) notes Action Research “is unlikely to work if carried out by one single teacher working alone. It is essentially a collaborative effort involving observation and conversation” (p. 34). One of the pillars of this project was the collaboration with the author’s fellow researcher-practitioner based in New Caledonia. This was not the only collaborative aspect of the research. One of the Action Research methods used was class observation, completed by the author’s research supervisors (for details, see section 3.5.1 below).

In sum, from the perspective of the current research project focusing on the ways in which the learner and educational environment interact with each other, Action Research seemed the most appropriate approach. This methodology provides a paradigm and, therefore, validation of this research which was required to be conducted over a certain period of time in order to collect enough data to respond to the research questions. The flexibility of this method meant that the variables could change with each consecutive stage of the project (e.g. the size of the participant cohort, the ICT tools used in the unit), without this negatively impacting on the research. Finally, this methodology offered a large spectrum of data collection techniques suitable to conduct a study within this particular educational environment. It allowed the teacher-researcher to study a living, breathing class and their reactions to new technologies in language teaching and learning.

3.3 Description of the educational practice

This teaching phase of this project was conducted over a three year period, when the teacher-researcher was coordinating HHB066, one of the units offered to students enrolled in a French Language programme at Queensland University of Technology (QUT). The overall aim of the unit was to develop learners’ advanced proficiency across the four language skills. In order to achieve this goal, four learning objectives were set up for the unit targeting the development of the following capabilities: (1) debating complex issues clearly and convincingly; (2) showing some mastery of essay writing techniques in French; (3) developing negotiation skills with native speakers in French, and (4) working in collaboration with other students as a member of a group. In each year of the project, the main focus of the unit was on Argumentation – the art of presenting one's ideas and opinions in an orderly and logical manner, in French. The semester was divided into two parts. The first six weeks (approximately) were dedicated to the development of argumentative skills through an online collaboration between QUT students and native speakers of French enrolled in a course at the University of New Caledonia. The remaining weeks focused on enhancement of argumentative writing skills by authoring an essay. This was an individual piece of work, completed
online. Despite some minor modifications to the structure of the unit, overall its organization remained the same for the entire duration of the project.

There were four contact hours per week. With exception of 2008, when the two hours held in the language laboratory preceded the face-to-face language class, the first two hours were held with all students enrolled in HHB066 and were conducted in a ‘traditional’ classroom. However the face-to-face delivery was supported by ICTs such as PowerPoint presentations, CD-ROMS and Internet websites. Later in the week, a second two hours were held in the language laboratory and dedicated to technology-mediated activities. More precisely, in the first part of the semester these activities were part of an online collaboration with the students’ overseas partners using two ICT tools, an asynchronous Wiki and a synchronous chat room/ virtual classroom. The use of the Wiki continued after the collaboration with New Caledonian students through the second part of the semester, during which QUT students were required to use the Wiki for their assignments. Considering the methodological challenges (online collaboration with French speaking students from the University of New Caledonia) as well as logistical issues (the number of computer stations available in the language laboratory, the organization of the online collaboration) the HHB066 cohort was split into two smaller groups for activities conducted in the language laboratory.

The form and content of learning activities evolved over the time of the project and each year new types of activities were introduced. These changes resulted from multiple factors, the most important being the reflection of the teacher-researcher on her practice and the performance of the project, but also negotiation with the overseas partner, student feedback, availability of particular ICT tools, the size of student cohorts in Australia and New Caledonia, and differences in organization of teaching periods. For instance, in 2007, the change of QUT’s learning platform to Blackboard forced the teacher-researcher to change the communication media from the combination of synchronous (chat room) and asynchronous (Wiki) used in 2006 to asynchronous only. However, the following year, in 2008, seeing the importance of synchronous communication and being offered the possibility of trialling a new synchronous communication tool (Elluminate), the teacher-researcher modified the learning activities and reintroduced synchronous tasks. Broadly, over the three years, learning tasks underwent the following changes:

a) In 2006 learning tasks focused on textual analysis using tools applied in the French educational tradition (e.g. dossier thématique, analyse commentée). The collaboration between Australian and New Caledonian students was very close, with the latter becoming to a certain extent online mentors, selecting documents and linguistically assisting the English-speaking learners in their tasks.
b) In 2007, the objective of the learning activities was to help QUT students discover different argumentative genres. The English-speaking learners were required to choose one genre and write an argumentative text observing its generic characteristics. The support of UNC peers was limited to assistance with researching the topic and linguistic feedback.

c) In 2008, learning tasks designed for online collaboration targeted the development of QUT learners’ speaking capabilities and were complementary to the activities scheduled for the second two hours, held in face-to-face mode. Students were required to prepare role-plays which they would present during the in-class contact hours. The New Caledonian students became ‘native speaking advisors’ whose responsibilities were to assist their QUT peers with preparing the role-plays.

The table below (Table 1) summarises learning activities designed and developed by the teacher-researcher between 2006 and 2008 to be completed using new technologies during both parts of the unit – the online collaboration with the UNC students and the written assignments using the Wiki. The activities are presented in order of completion.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Summary of online learning activities developed for the unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First part of the semester</strong></td>
<td><strong>2006 Learning activities</strong></td>
</tr>
<tr>
<td>1. UNC students only – selecting a series of argumentative texts (e.g. a newspaper article, a speech) to be republished online using the Wiki in the group pages set up by the teacher-researcher;</td>
<td>1. UNC students only – selecting a series of argumentative texts (e.g. a newspaper article, a speech) to be republished online using the Wiki in the group pages set up by the teacher-researcher;</td>
</tr>
<tr>
<td>2. QUT learners only – completing the first generic analysis of the published texts, the analysis treating such categories as language, grammar and generic appropriateness; publishing the analysis online using the Wiki;</td>
<td>2. QUT learners only – completing the first generic analysis of the published texts, the analysis treating such categories as language, grammar and generic appropriateness; publishing the analysis online using the Wiki;</td>
</tr>
<tr>
<td>3. Participating in the first synchronous exchange via a chat room; the discussion between QUT and UNC students focused on the analysis of the documents posted online, that is, the main objective of this activity was to encourage the QUT students to negotiate the comprehension and interpretation of the original texts with their overseas peers;</td>
<td>3. Participating in the first synchronous exchange via a chat room; the discussion between QUT and UNC students focused on the analysis of the documents posted online, that is, the main objective of this activity was to encourage the QUT students to negotiate the comprehension and interpretation of the original texts with their overseas peers;</td>
</tr>
<tr>
<td>4. Publication, on the Wiki, by the UNC peers of the summary of and comments about the outcomes of the synchronous exchange;</td>
<td>4. Publication, on the Wiki, by the UNC peers of the summary of and comments about the outcomes of the synchronous exchange;</td>
</tr>
<tr>
<td>5. Creating a dossier thématique (a set of documents on the same topic) by QUT students; in groups QUT learners created their dossiers and wrote a short commentary on each document; both the documents and the comments were posted online;</td>
<td>5. Creating a dossier thématique (a set of documents on the same topic) by QUT students; in groups QUT learners created their dossiers and wrote a short commentary on each document; both the documents and the comments were posted online;</td>
</tr>
<tr>
<td>6. Participating in the second synchronous online exchange using the chat room; students discussed the selected texts (including arguments presented, language and</td>
<td>6. Participating in the second synchronous online exchange using the chat room; students discussed the selected texts (including arguments presented, language and</td>
</tr>
</tbody>
</table>
While the scheduled tasks of QUT students included analysing and writing argumentative texts, the role of UNC students was limited to providing ‘friendly expert advice’, commenting but not correcting, and for this reason they were included in the negotiation of the topic.

1. UNC students only – posting personal profiles online using their groups’ pages set up by the teacher-researcher (the teacher-researcher also assigned the students to groups);
2. QUT students only – responding to the postings by publishing their personal profiles; individually, selecting one of the topics suggested by the teacher-researcher for further analysis, from a choice ranging from L’immigration [Immigration] to Avons-nous besoin des célébrités [Do we need celebrities] or Sujet libre [Free choice]: the topic selected and a short justification had to be published on the Wiki group pages;
3. Online negotiation – both QUT and UNC peers had to negotiate which of the chosen topics they would like to develop and why;
4. QUT and UNC students – preparing a dossier thématique composed of the articles on the selected topic; tasks included searching for articles, posting them online with a short comment explaining the reasons for including them in the dossier;

5. QUT learners only – preparing their analyse commentée du dossier thématique, an argumentative analysis of documents constituting the dossier thématique; the tasks included: finding the common thread and key ideas of all documents, organising the ideas in a logical manner, and writing a short commentary about the dossier; posting the texts online;
6. UNC students only – underlining, but neither correcting nor commenting on errors in the texts posted by the QUT learners;
7. QUT students only – considering feedback provided by UNC students; preparing the final version of their analyse commentée du dossier thématique; publishing the texts online
8. UNC peers only – analysing the final versions of the dossiers thématiques and preparing feedback for the QUT learners about their competency level in French;
9. QUT students only – preparing a reply to their UNC peers, including a thank you message.
   This was the end of the online collaboration.

Second part of the semester
10. Writing an essay in French; QUT students were required to systematically publish their pieces of writing online, on their Wiki pages; the teacher-researcher checked and encouraged progress on a weekly basis using both the “comment” function and text editor on the Wiki.

2007 Learning activities

First part of the semester
1. UNC students only – posting personal profiles online using their groups’ pages set up by the teacher-researcher (the teacher-researcher also assigned the students to groups);

3 While the scheduled tasks of QUT students included analysing and writing argumentative texts, the role of UNC students was limited to providing ‘friendly expert advice’, commenting but not correcting, and for this reason they were included in the negotiation of the topic.
5. QUT students only – in groups, analysing the *dossier thématique* composed of the chosen articles; tasks included selecting the arguments, classifying them according to their strength, preparing an analysis; posting the text online on their Wiki group pages for feedback from UNC peers;

6. Providing feedback to QUT learners on their analysis; UNC students were required to comment on both language and the content of the analysis;

7. QUT students only – individually, selecting an argumentative genre which they would like to use when writing a text on their chosen topic, the choice included a manifesto, an open letter, a sponsored article and a speech; preparing a detailed plan of his/her text, including the logical organisation of the arguments;

8. QUT learners – writing an argumentative text online; UNC students – providing ‘expert’ advice and feedback on their QUT peers’ productions;

9. QUT students – publishing the final versions of their argumentative texts;

10. UNC peers – providing feedback on the texts and comments on the language competence of their QUT peers.

Second part of the semester

11. Writing an essay in French; QUT students were required to systematically publish their pieces of writing online, on their Wiki pages; the teacher-researcher checked and encouraged progress on a weekly basis using both the “comment” function and text editor on the Wiki.

2008 Learning activities

First part of the semester

1. QUT and UNC students – on the Wiki group pages prepared by the teacher-researcher, students were required to post personal information about themselves;

2. QUT learners only – negotiating within their groups a set of questions that they would like to use in their role play *interview sur le plateau*⁴ [interview in a TV studio] to be presented during face-to-face delivery; publishing the agreed questions online, on their Wiki group pages;

3. Participating in the first online synchronous exchange using Elluminate – a virtual classroom; tasks included: introductions, explanation by the QUT students of their plan for the collaborative work; provision of feedback by the UNC peers⁵ on the questions for the role play;

4. UNC peers only – on the Wiki, they provided advice on the progress so far made by

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⁴ One of the students’ tasks during face-to-face contact hours was to prepare a simulated interview with a chosen person. The interview had to comply with the characteristics of a TV interview.

⁵ Similarly to the previous year, UNC students participating in the collaboration played the role of ‘friendly experts’ commenting but not correcting.
QUT students in preparing the role play, the advice covered language, grammar and intercultural features;

5. Participating in the second online synchronous exchange – QUT students were required to complete preparation for the role play and to discuss the final aspects of their scripts;

6. QUT students only – in groups, students negotiated online the questions6 that they would like to ask their UNC peers, the questions had to relate to chosen aspects of New Caledonian life;

7. UNC students only – preparing a video response for QUT peers, New Caledonian students prepared their video responses which they sent to the teacher-researcher who posted them on the HHB066 Blackboard site.

The collaboration ended here.

**Second part of the semester**

8. Writing an essay in French; QUT students were required to systematically publish their pieces of writing online, on their Wiki pages; the teacher-researcher checked and encouraged progress on a weekly basis using both the “comment” function and text editor on the Wiki.

3.4 Data collection techniques

As mentioned at the beginning of this chapter, the teacher-researcher formulated the following research questions: (1) What are learners’ attitudes towards the ICT tools used in the project?; (2) What are the affordances offered by ICTs used in a specific French language course at university level from the perspective of the teacher and from the perspective of language learners?; (3) What affordances offered by ICT tools used by the teacher within the specific teaching and learning environment have been taken up by learners?; and (4) What factors influence the uptake by learners of the affordances created by ICT tools used by the teacher within the specific teaching and learning environment?

Section 3.2 provided a rationale for choosing Action Research as the most appropriate method to answer these questions. The range of data collection methods used within Action Research extends from ‘pen and paper’ techniques (field notes, diaries and notes, reports, questionnaires), through live techniques (sociometric methods, interviews and discussions) to ostensive techniques (still presentations, audio taped interviews, videotape) (McNiff & Whitehead, 2002), all of them being used generally within the qualitative research paradigm.

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6 Once the questions were prepared, the teacher-researcher video recorded them and posted the recordings on Blackboard to be viewed by both groups of students.
Drawing upon the theoretical approaches adopted for the project, the data were collected using the following methods:

1) Questionnaires (see Appendices A, B and C) administered to students (Hopkins, 2002; McNiff & Whitehead, 2002) using Likert-scale questions, open questions, yes/no questions.

2) Partnership classroom observation of research participants conducted by a Research Participant Advocate (see Appendix D) (Hopkins, 2002; McNiff & Whitehead, 2002)

3) Focus group (see Appendix E) with volunteering students who participated in the unit studied (semi-structured interview) (Hopkins, 2002; McNiff & Whitehead, 2002).

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summary of data collection techniques</strong></td>
</tr>
<tr>
<td>Questionnaire</td>
</tr>
<tr>
<td>2006</td>
</tr>
<tr>
<td>2007</td>
</tr>
<tr>
<td>2008</td>
</tr>
</tbody>
</table>

Not all the techniques were used at the same time, as seen in Table 2. The choice of techniques evolved with time and was determined in accordance with the theoretical paradigm of this project. The challenge of selecting the appropriate methods consisted of finding those which would allow the teacher-researcher to describe complex interactions between the educational environment created for HHB066 and students enrolled in the unit. It is necessary then, to define two concepts as they are understood in the context of this thesis: firstly, the educational/learning environment and, secondly, the nature of the interaction between it and its social agents. The educational/learning environment is seen as an entity embracing the French language unit offered at the University, with its learning objectives, academic requirements, pedagogical approach, teaching methodology, content, scheduled tasks to complete, ICT tools provided by the University and also the multiple identities of the social agents involved in the unit. The interaction between the educational/learning environment and students encompasses, firstly, perception, by both the teacher-researcher and the learners, of potentials for action, i.e. affordances offered by the educational environment and, secondly, their uptake by students.

Each chosen data collection technique was also reviewed from the perspective of its
efficiency in providing data to answer the research questions. For instance, the questionnaire tool, although used in three consecutive years, was modified each year. The other two techniques – partnership class observation and focus group – were selected in order to complement the information provided by the questionnaire. The table below (Table 3) presents a summary of the most important changes in the unit and research project implemented over the three years of data collection:

<table>
<thead>
<tr>
<th>Year</th>
<th>Aims of the unit</th>
<th>Objectives of the unit</th>
<th>ICT tools used</th>
<th>Research method</th>
<th>Implemented changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Develop advanced proficiency across the four skills of reading, writing, speaking and listening.</td>
<td>1. Debate complex issues clearly and convincingly; 2. Show some mastery of essay writing techniques in French</td>
<td>Learning Management System (LMS): On-Line Learning and Teaching (OLT); Wiki; Specially prepared CD ROMs; PowerPoint presentations; Chat room; Web sites of French-French and English-French dictionaries, grammar reference web sites (for example verb conjugation sites); French media websites (newspapers; TV news)</td>
<td>Questionnaire</td>
<td>Nil</td>
</tr>
<tr>
<td>2007</td>
<td>Develop advanced proficiency across the four skills of reading, writing, speaking and listening.</td>
<td>1. Debate complex issues clearly and convincingly. 2. Show some mastery of essay writing techniques in French</td>
<td>LMS Blackboard; Wiki; Specially prepared CD ROMs; PowerPoint presentations; Web sites of French-French and English-French dictionaries, grammar</td>
<td>Questionnaire; Class observation</td>
<td>Expanded unit objectives; University-mandated change of LMS from OLT to Blackboard; changed tasks to perform in</td>
</tr>
<tr>
<td>Year</td>
<td>Develop advanced proficiency across the four skills of reading, writing, speaking and listening.</td>
<td>1. Debate complex issues clearly and convincingly.</td>
<td>Show some mastery of essay writing techniques in French</td>
<td>Develop negotiation skills with native speakers in French</td>
<td>Working in collaboration with other students as a member of a group.</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>2008</td>
<td>LMS Blackboard; Wiki; Elluminate – virtual classroom; Videorecordings; Specially prepared CD ROMs; PowerPoint presentations; Web sites of French-French and English-French dictionaries, grammar reference web sites (for example verb conjugation Web sites); Web sites of French newspapers and TV.</td>
<td>Questionnaire; Focus Group</td>
<td>More developed Blackboard; videorecording added as an ICT tool; class observation dropped as a research method; questionnaire revised and redesigned; more emphasis given to spoken French including more analytical activities of argumentative genres used in French media (news, interviews, debates) and more ‘role play’ type activities; on-line collaboration shorter but more intensive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.5 Recruitment of research participants, ethical considerations and characteristics of the participating students

All data collection activities were granted Ethical Clearances for Research Involving Human Participants. For collections completed in 2006 and 2007 Ethical Clearance was granted by the School of Languages and Comparative Cultural Studies, the University of Queensland (Ethical Clearance number 1006) and for 2008 Ethical Clearance was granted by the Faculty of Business, Queensland University of Technology (Ethical Clearance number 0800000874).

3.5.1 Recruitment of research participants and ethical considerations

In all three phases of the project, recruitment of the research participants was similar and all the students were recruited directly by the teacher-researcher. At the beginning of the unit, in the first hour of class, students were informed of the possibility of participating in the research project. They were also provided with information about the main purpose, specific objectives, benefits and possible challenges of the project. The learners were also assured that participation in the project was voluntary, they were free not to take part in the project without any repercussions and their anonymity and confidentiality would be preserved. No distinction would be made between those who participated in the research and those who did not. Research Participant Advocates were appointed, as advised in the National Statement on Ethical Conduct in Human Research (Australian Government, 2007, para. 4.3.2) By appointing Research Participant Advocates, the teacher-researcher sought to prevent any ethical problems regarding the recruitment procedures and the project. The Research Participant Advocates were not directly involved in the delivery of the unit, but were responsible for supporting all research participants (teacher-researcher and students) during the project. The responsibilities of the Research Participant Advocates included: ensuring that the learners were free to discuss the project and their decision to participate, explaining to the potential research participants the main objectives of the project, replacing the teacher-researcher when required (for instance, during the distribution and collection of the Participant Information Sheet, Consent Forms and questionnaire) to monitor the procedure. Due to the implementation of this practice, the names of the students who consented to take part in the project remained unknown to the teacher-researcher until the official release of final grades. The outlined process followed the main principles of recruiting research participants while conforming to the regulations of the National Statement on Ethical Conduct in Human Research (Australian Government, 2007).
### 3.5.2 Characteristics of participating students

Over the three years of the data collection, various students consented to participate in the research. Table 4 summarises the profiles of all students who took part in the project.

<table>
<thead>
<tr>
<th>Year</th>
<th>Research method</th>
<th>Number of enrolments in the unit</th>
<th>Number of participants</th>
<th>Age of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Questionnaire</td>
<td>14</td>
<td>9</td>
<td>17 – 20 2 students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20 – 25 6 students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25 – 30 0 students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30 – 35 1 student</td>
</tr>
<tr>
<td>2007</td>
<td>Questionnaire</td>
<td>26</td>
<td>19</td>
<td>17 – 20 4 students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20 – 25 13 students</td>
</tr>
<tr>
<td></td>
<td>Partnership</td>
<td>26</td>
<td>August* 12 students</td>
<td>Information not</td>
</tr>
<tr>
<td></td>
<td>classroom</td>
<td></td>
<td>August** 9 students</td>
<td>available</td>
</tr>
<tr>
<td></td>
<td>observation</td>
<td></td>
<td>October* 4 students</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>October** 12 students</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Questionnaire</td>
<td>14</td>
<td>8</td>
<td>17 – 19 4 students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20 – 24 3 students</td>
</tr>
<tr>
<td></td>
<td>Focus Group</td>
<td>14</td>
<td>2</td>
<td>17 – 19 2 students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25 – 30 0 students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30 – 35 1 student</td>
</tr>
</tbody>
</table>

* Observation 1  
** Observation 2
3.6 Questionnaire

With the development of the project and with the progressive shift of the research focus from a broad perspective on the use of ICT tools in the classroom to the role of affordances in the teaching and learning environment and their uptake by students, the content of the questionnaire was significantly modified from one year to the next.

In 2006 the survey was composed of four parts, namely: general information, followed by questions on features allowing asynchronous on-line collaboration, features allowing synchronous on-line collaboration and planning of tasks. The questionnaire was constructed of Likert-scale and open-ended questions, with 43 questions in total. A group of nine participants answered the survey (64% of 14 students enrolled in the unit), predominantly female\(^7\), whose ages fell into the 17-35 range.

The following year, the questionnaire was modified to direct its focus to the teaching and learning environment, the teaching methods applied and the ways in which the participants were using the teaching and learning environment for their learning. It contained the following sections: general information, questions related to the use of ICT tools, the delivery mode; learning strategies, teaching approach and unit content. Although in comparison with the previous version the number of sections increased, the total number of questions slightly decreased, to 41. The questionnaire was answered by 19 participants, which was just over 73% of the cohort of 26 students enrolled in the unit. As in the previous year, the age of the participants fell into the 17-35 age range with a significant predominance of female students.

The data collection procedure was the same for these two years, that is, the questionnaire was administered to students in paper-based form at the end of the teaching period. On the day agreed by the teacher-researcher and potential participants, printed copies of the questionnaire were distributed to students who consented to take part in the research. As mentioned above, the teacher-researcher was absent, replaced by a Research Participant Advocate.

The third round of data collection, by recalibrating its focus, introduced further changes to the design of the questionnaire. The number of sections was reduced to three, namely demographic

\(^7\) Due to the small number of participants and in order to preserve their anonymity, no question regarding the participants’ gender was included in any of the questionnaires.
data, the use of ICT tools in HHB066 and the teaching and learning environment with the question of the uptake of the affordances offered by the teaching and learning environment becoming the centre of interest. The questions were condensed to 17, however most of the questions were accompanied by sub-questions, thus the total number of questions (40), did not differ greatly from previous versions. The number of students who had filled in the questionnaire by the end of the semester was eight which constituted 57% of all students enrolled in the unit (14). Similarly to the previous years, the cohort was composed of mostly female students whose age fell into the 17-35 age range.

The research procedure changed that year, with the administration of the questionnaire shifting to online delivery. Students were provided with information about the project during the teaching period and those willing to take part in the research by filling in the on-line questionnaire were asked to send all required forms directly to the Research Participant Advocate. The teacher-researcher provided QUT's Technical Services with the final version of the questionnaire to be uploaded on-line and it was made available over a period of four weeks (from 3 to 28 November 2008).

In sum, over the three years 36 students completed the questionnaire which was modified with each consecutive year. This illustrates the spiral nature of Action Research where the repeated study is always based on the previous results and the objective re-thought.

3.7 Partnership classroom observation

In order to complement the information gathered through the questionnaire the teacher-researcher designed partnership classroom observations. Partnership classroom observation forms were developed with the central aim of investigating the ways in which learners interacted with the teaching and learning environment, as advocated by researchers within Ecological Linguistics (Fettes, 2003; Shun, Lam & Kramsch, 2003; Leather & van Dam, 2003; van Lier, 1998, 2000, 2003, 2004a; 2004b).

During the semester, on four separate occasions, the internal dynamics occurring either between different students or between students and the technological artefacts were observed by the Research Participant Advocates who conducted the class observations and filled out the questionnaires prepared by the teacher-researcher. The forms drew upon “Improving the Quality of Education for All” questionnaires for classroom observation (Hopkins, 2002, p. 88) and contained eight main questions followed by sub-questions focusing on various forms of interaction within the particular teaching and learning environment. More precisely, the questions concerned the
classroom environment, methods of delivery, lecturer-student interaction, student-lecturer interaction, student-student interaction, student-ICT tool interaction, student involvement in the activity and finally the classroom ethos.

There were four sessions of class observation. On the days the observation was conducted and prior to commencing the teaching activities, the teacher-researcher left the classroom allowing the Research Participant Advocate to complete the agreed tasks (e.g. distributing and collecting the required documentation). Only after this did the teacher-researcher re-enter the classroom and deliver the class. The Research Participant Advocates observed only those students who had given their consent. The teacher-researcher did not know which students were observed and which were not. The class observation forms filled out by the Research Participant Advocates were sent in electronic form to the teacher-researcher after the official release of final grades.

The information gathered though this method of research provided important insights into the dynamics of interaction between the human participants in the teaching and learning process and the teaching and learning environment observable in the classroom.

3.8 Focus group

The third data collection method applied by the teacher-researcher in the final year of the project, in addition to the questionnaire, was a focus group. The preliminary analysis of data collected using the questionnaire and partnership observation class, although very informative, left a necessity for further study. The need to investigate more deeply the data provided by respondents in the questionnaire could only be achieved by asking specific questions directly of participants. The teacher-researcher included a focus group where participants had the opportunity to reflect aloud on their experiences with the ICT tools used in the unit.

The teacher-researcher advertised the focus group to all students enrolled in HHB066 well in advance (during the teaching period). The activity itself was held after the official release of final grades, with two female students participating. On the agreed day, the students who had accepted the invitation to participate in the research filled in the required forms, and then took part in the discussion led by the teacher-researcher. The session was video-recorded, and the one hour-long recording saved to the teacher-researcher’s computer and copied to a DVD which was put in a secured place with other research data. The teacher-researcher transcribed the video recording and the transcription was used in the data analysis.
3.9 Summary

This chapter explained the teacher-researcher’s need for her own theory of educational practice and discussed the characteristics of the Action Research method applied in this project. The research instruments, developed, applied and modified over three years included a questionnaire, partnership classroom observations and a focus group. The presentation of data collection techniques was followed by discussion of their implementation.

The next chapter will focus on the analysis of the data collected during the three years of the study based on the research questions.
4.0 Data analysis

This research project investigates the relationship between the educational/learning environment and its social agents through the model of affordance. As demonstrated earlier in this work, from an Ecological Linguistics perspective, the role of the environment for the process of language learning is crucial. Although the educational/learning environment holds together all constituent elements, it is the notion of affordance that is the core of the interaction between the environment and its social agents. For this reason, the notion of affordance in language learning with ICT tools became the focal point of this research project. The process of scoping the research towards affordances followed the spiral model of Action Research, as outlined in the Research Methodology, and resulted in four research questions:

1) What are the learners’ attitudes towards the ICT tools used in the project?
2) What are the affordances offered by ICTs used in a specific French language course at university level from the perspective of the teacher and from the perspective of language learners?
3) What affordances offered by ICT tools used by the teacher within the specific teaching and learning environment have been taken up by learners?
4) What factors influence the uptake by learners of the affordances created by ICT tools used by the teacher within the specific teaching and learning environment?

Questions two, three and four are specifically directed at investigating the type, the differences in perception of and the uptake of affordances offered by ICT tools used in HHB066. These questions emerged over time from a broader question, or starting point, which focused on the educational learning environment from the perspective of learners’ attitudes towards ICTs. The investigation of the learning and teaching environment from this point of view was conducted in the first stage of the research and, with the preliminary analysis of data, allowed the teacher-researcher to begin to shift her attention towards the model of affordance. Based on study of the concept of affordance and after considering the data gathered in the early stages of the project, the teacher-researcher concluded that the students’ attitudes should be included in the concept of the frame of reference, one of the constituents of the ‘model of affordance’. For these reasons, the first of our four research questions investigates learners’ attitudes towards the ICT tools used in the project, while the remaining three questions are focused on the notion of affordance.
In order to assist with the data analysis, the teacher-researcher developed the following series of prompt questions:

1) In relation to learners’ attitudes (research question 1)
Did the learners like the ICTs? Did they find the ICTs useful?

2) In relation to the perception of affordances (research question 2)
Within the context of HHB066, what affordances were perceived by both learners and teacher-researcher? Were there salient affordances which were perceived by all participants in the learning and teaching process (i.e. teacher-researcher and learners)? Did the teacher-researcher's perceptions vary from the learners’ perceptions? If so, in what way and how can these differences be explained? Was there a type of affordance not perceived by learners, but perceived by the teacher-researcher? Was there a type of affordance not perceived by the teacher-researcher, but perceived by learners?

3) In relation to the uptake of affordances (research questions 3 and 4)
How was the teaching and learning environment\(^8\) organised and what was the relationship between that environment, its ability to generate affordances and their uptake by learners? Was there any regularity which could be generalised into a broader model or pattern of behaviour? How were ICTs integrated into HHB066 as taught by the teacher-researcher? Did the environment promote the uptake of affordances? If so, how?

Considering the volume of data collected during this three-year project, it was necessary to make choices in relation to the ICT tools that would be analysed. After careful reflection, the decision was taken to focus the data analysis on three elements: the Learning Management System (LMS) Blackboard and two other ICT tools used in the project, namely a Wiki and online links. Blackboard was chosen for analysis as an example of an educational platform extensively used by the teacher-researcher in practice. The Wiki was selected as a highly collaborative tool that was applied during all three stages of the project and with different LMS platforms. Finally, the study of the online links presented an opportunity to examine ways in which learners exploited a non-collaborative ICT tool (as opposed to the Wiki).

\(^8\) For the purposes of this research project, the teaching and learning environment covers the French language unit offered at the University, including its learning objectives, academic requirements, pedagogical approach, teaching methodology, content, scheduled tasks to complete, and also ICT tools provided by the University and the multiple identities of the social agents involved in the unit.
4. 1 Blackboard

The Blackboard Learning Management System (LMS) is a computer software package that provides a wide selection of ICT tools for teachers and, more broadly, educators, allowing the organisation of online teaching and learning resources and their release to learners, the management of assessment, grading and, to some extent, administrative functions. According to the Blackboard Incorporated website, its overall goal is “to develop and implement technology that improves every aspect of education” (Blackboard Inc., 2011). This technology is offered for use in various institutions, such as schools, colleges, universities, corporations, associations, government and the military. Blackboard’s corporate webpage states that for many of these organisations this LMS is rapidly becoming an important integrated teaching and learning space. Currently, the company offers a vast range of platforms, namely Blackboard Learn, Blackboard Collaborate, Blackboard Connect, Blackboard Transact, Blackboard Analytics and Blackboard Mobile (Blackboard Inc., 2011). Furthermore, all these tools can be combined and integrated, depending on the needs of their users. The proliferation of Blackboard systems, each designed for a different use, indicates an increasing interest in this type of teaching and learning space and highlights the need to adapt to different users’ requirements for an online environment.

Most of the Blackboard sites used by learning and teaching organisations follow a similar default design, composed of a front page with links to the sub-pages. The front page, titled ‘Announcements’, serves as a platform for the unit coordinator and the teaching staff to communicate with students. This page typically contains links to information about the requirements of the unit (Unit Details), to the resource hub (Learning Resources), to assessment information (Assessment), to collaboration tools (Collaboration), to staff contact details (Contact Us) and to space for providing staff feedback on the unit (Feedback). The Collaboration page can include a vast choice of ICT collaborative tools such as discussion forums, group pages, blog sites, glossaries, journals and chat rooms.

Blackboard as used in this project could be described in terms of an online environment hosting a comprehensive set of ICT tools allowing educational institutions to deliver technology-enhanced courses.

4.1.1 The use of LMS Blackboard and the teacher-researcher’s perceptions of its affordances

As explained in the research methodology, Blackboard was introduced in the second year of the project following the university's decision to implement this particular teaching and learning
environment instead of an in-house product, Online Learning and Teaching (OLT). The teacher-researcher made a considerable effort to customise this new tool, however it is important to note that the organisation of the resources on the platform was determined by Blackboard’s standard format. As Lane (2009) rightly observes:

Course management systems (CMSs), used throughout colleges and universities for presenting online or technology-enhanced classes, are not pedagogically neutral shells for course content. They influence pedagogy by presenting default formats designed to guide the instructor toward creating a course in a certain way. (n.p.)

This observation emphasises the extent to which pedagogy is constrained by the technology-enriched environment.

Conscious of the importance of pedagogy and prior to making use of the tool, the teacher-researcher’s attention had started shifting from the study of students’ attitudes to the analysis of the ways in which they perceived and took up the potential offered by ICTs. For this reason, the teacher-researcher applied the model of affordance - the theoretical background of this thesis – to analyse the specific affordances of the functionalities included in the predetermined format of the tool and their potential for application in HHB066.

The notion of affordance has already been extensively discussed in previous chapters (Introduction and Literature Review), however it is, perhaps, useful and timely to reiterate that, in the context of language learning, affordances are the opportunities for an action offered by the environment and mediated by various ways of perceiving that environment. In a language learning context, they can allow the learner to improve his/her linguistic abilities by acting and interacting within the teaching and learning environment. For instance, if one considers an ICT tool, in this case Blackboard as used in HHB066, as a complex object offering various affordances, these could include: allowing the teacher-researcher to apply the chosen pedagogy; conduct scheduled learning activities and tasks; complete the online collaboration; provide teaching and learning documents to students; communicate with students; provide learners with opportunities to read in French, to look up information about the unit content, to revise for weekly tasks and the final essay. Each of these affordances “fuel[s] perception and activity and bring[s] about meanings – further affordances” (van Lier, 2004a, p. 96).

This research project uses, as a framework, the model of affordance developed and discussed by Good (2007). According to Good, an affordance is a unit of analysis that should be
seen as being “nested” (Good 2007, p. 277) within the broader concept of the functional context which, in its turn, is included in a broader concept, the frame of reference (see Figure 2, section 2.1.2.1 above). From this perspective, the three constituents of the model of affordance are connected, interdependent and complete each other: the frame of reference initiates the identification of the potential for an action while the functional context provides concrete examples of applications of already-identified affordances and triggers actions, i.e. the uptake of affordances. These actions, in their turn, provide experiences which change the individual’s frame of reference and are necessary for identification of further affordances.

The following paragraphs describe the application of the model of affordance in this research and, particularly, in the data analysis. The identification of Blackboard's affordances by the teacher-researcher was conducted within her frame of reference⁹, a construct drawing on the following elements: the French course taught at the university, including learning objectives and curriculum requirements; the teacher-researcher’s professional identity as a lecturer responsible for the unit, which embraced setting up learning outcomes suitable for the students’ level and which would also conform to the requirements of the curriculum; selecting an appropriate pedagogy, designing the unit content; the teacher-researcher’s identity as a researcher interested in the application of ICT tools for teaching and learning; the teacher-researcher’s identity as a moderately skilful user of ICTs capable of employing ICT tools provided by the university for learning and teaching; the teacher-researcher’s identity as an ICT user with particular attitudes towards new technologies; and the teacher-researcher’s identity as an individual, including some personal attributes.

The frame of reference hosted the functional context, which in this case was composed of the particular pedagogy applied in HHB066, its teaching methodology and the physical facilities in which the unit was taught and studied. In other words, in HHB066, the learning environment dynamically conditioned the affordances identified and taken up by the various social agents involved in the unit.

Based on an analysis of potential for use offered by the platform, the teacher-researcher organised the online environment according to two classificatory principles: a ‘generic structure’ and a ‘chronological structure’ or ‘syllabus calendar’. That is, firstly, the Learning Resources page, a hub for all pedagogical resources used in the unit, contained four sub-folders organised according to different generic categories (French television networks, French newspaper sites, French

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⁹ Building on Good’s research, the teacher-researcher developed descriptions of the three constituents of the model of affordance, which are presented in this chapter.
dictionaries and linguistic help). Each of these folders contained a series of further sub-folders with resources in that particular category and, as required, further sub-folders. The second organisational principle was based on the academic calendar and followed the structure of weekly topics. More precisely, the folder named ‘La planification hebdomadaire des cours’ [weekly work plans] contained twelve sub-folders, one for each week of delivery. Each sub-folder held pedagogical materials used during the face-to-face delivery, mostly word-processed files and PowerPoint presentations. The sub-folders also contained links to selected online sites chosen from the catalogue of all recommended online links contained on the Learning Resources page. The weekly sub-folders were created and released sequentially, that is, at the beginning of each week a new sub-folder was made and released. All sub-folders remained published online until the end of the semester.

This organization of the platform presented a triple advantage. Firstly, it followed the predetermined structure of the platform and, therefore, did not require any special changes to be made by technical support. Secondly, the ‘generic structure’ allowed the teacher-researcher to include a considerable amount of additional, comprehensive and reliable online resources not used directly during the contact hours in the classroom. Thirdly, the chronological structure provided a well-organised inventory of resources that gathered together all study materials used in class by the teacher-researcher. This assisted students with their revision. Figure 6, below, provides a graphic representation of the organisation of the Blackboard site:
1. La planification hebdomadaire des cours [Weekly work plans]:
   a. Semaine 1 [week 1]:
      i. Documents distribués en cours [documents distributed in class]
      ii. Les sites internet utilisés en cours, [Internet sites used in class], etc.
   b. Semaine 2 [week 2]
   c. Semaine 3 [week 3]
   d. …
   e. Semaine 12 [week 12]
2. Le lien vers le Wiki Confluence [link to Wiki Confluence]
3. Les sites recommandés [recommended sites]:
   a. Les sites de chaînes de télévision françaises/ francophones [TV channels in French]:
      i. Le site de TF1
      ii. Le site de France 2
      iii. Le site de TV5 Monde
      iv. Le site de LCI
   b. La presse française et/ ou francophone [French-language newspapers]:
      i. Le site du Monde
      ii. Le site du Figaro
      iii. Le site de Libération
      iv. Le site du Point
      v. Le site de L'Express
      vi. Le site du Nouvel Observateur
      vii. Le site des Nouvelles Calédoniennes
   c. L’aide linguistique [linguistic help] (les dictionnaires, les conjugueurs des verbes, etc.) [dictionaries, conjugation sites]:
      i. Les dictionnaires en ligne [online dictionaries]:
      ii. LEXILOGOS; LEXILOGOS – traduction
      iii. Les conjugueurs des verbes [online conjugators]: LE DEVOIR CONJUGAL ; LE CONJUGUEUR DES VERBES
   d. Le site du musée Paul Gauguin [Paul Gauguin museum]
4. Course Materials Database (CMD)

1. Les critères d’évaluation [evaluation criteria]:
   a. La collaboration en ligne [online collaboration]
   b. L’interview avec un(e) Francophone [interview with a French native speaker]
   c. Le débat [debate]
   d. Le sujet du débat (examen oral) [debate topic for oral exam]
   e. La dissertation [essay]
2. QUT cite/ write [referencing style guides for QUT students and academics]
3. Assignment Minder [central assignment submission and collection service]

Feature not used, since overseas students not enrolled in the unit were not allowed to use standard functionalities offered by this feature due to difficulties with logging on to the QUT Blackboard platform.

Figure 6: Organisation of the HHB066 Blackboard site, 2008.
The principal objective guiding this organisation of the Blackboard site content was that of providing students with a logical structure that could fit into the default format of the system and, at the same time, reflect the pedagogical design of the unit. Most of the students indicated that they were satisfied with this use of Blackboard. In 2008, commenting on the ways in which Blackboard was used in the unit, one student wrote:  

*Of all my subjects, HHB066 utilised Blackboard the best: throughout the semester, it was always full of information that could assist me.*

During the focus group activity, Participant 1 noted:

*Like the learning wasn't just confined to oh, this is your lecture for the week, that's what you need to know. Like you just could keep going.*

Furthermore, when commenting on the richness of the resources provided, the same participant added:

*But this was really comprehensive, so like even if you weren't French you could still go home and do French.*

In conclusion, the ways in which the platform was used in the unit reportedly had a positive impact on students’ learning. As one 2008 focus group participant observed:

*Well, when you didn't know something or when you wanted to do actually some work there was no barrier to stop you. You could not go oh I don't know where this is obtained from, or it's too hard to do. It was up there in front of you, it was much easier to learn. It facilitated the learning in that way.*

In addition to designing the organisation of the platform, the teacher-researcher, aware of the highly standardised nature of the tool’s interface, attempted to customise the HHB066 site. More specifically, each page was set up with a different dominant colour and a different painting by Gauguin, the French painter famous for his works completed in Tahiti. For instance, the front page of the unit – Announcements – contained a banner made of four paintings by Gauguin. The two

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10 Students are quoted verbatim, no corrections have been made.
figures below (Figure 7 and Figure 8) illustrate the customisation of the site:

Figure 7: Screenshot of the HHB066 Blackboard site – Announcements page

Figure 8: Screenshot of the HHB066 Blackboard site – Feedback page.
There were several reasons behind the decision to use Gauguin’s paintings, such as the desire to embed elements of French culture in the unit, to make a connection with the geographical region of Oceania, and to make the site easily recognisable for users. The teacher-researcher was able to satisfy all these requirements through the affordances of the platform, which allowed for the uploading of a banner and the digital reproductions of various paintings.

Further ways of customising the platform included changing the shape and the colour of the buttons on the left-hand menu, and, when possible, setting the communication language as French. This last functionality played an important role in creating a ‘French immersion’ effect allowing the teacher-researcher to produce online experiences similar to those gained by students in face-to-face sessions, where the only language of communication was French. When changing the language was not possible due to system limitations of the Blackboard version used at that time, the teacher-researcher posted instructions in French below their English originals.

After the first year of using Blackboard, its organisation was reviewed, again through the lens of the model of affordance. This led to some modifications in how the software was used. These were based on three factors: the teacher-researcher’s improved understanding of the functionalities of the software; reflection on the pedagogy applied in the unit; and modifications in her frame of reference which impacted on her perception of the tool’s affordances. For instance, in 2008, following an analysis of communication between teacher and students in the previous year, it was decided not only to use the Blackboard Announcement page, but also to explore more extensively the potential of Wiki pages for asynchronous communication with students. After one year’s experience in using Blackboard, the teacher-researcher better understood the functionalities of this tool and was aware that the purpose of the Announcement page was to maintain general communication with students with regard to the delivery and administration of the unit, for instance timetable, due dates for submissions, exam schedule. There was a clear need for a specific communication platform which could be used for pedagogical purposes such as collaboration on the scheduled teaching and learning tasks. The solution appeared to be the Wiki function, which will be discussed more fully in section 3.2. After analysis of the affordances offered by the Wiki (e.g. space for collaboration, accessibility of the tool, editing functionalities), the teacher-researcher decided to use the Wiki in the next phase of the project to communicate with students on questions related to completion of learning and teaching tasks. This decision resulted in changes to the pedagogy with an emphasis on an intense scaffolding of students’ learning. This pedagogical improvement was an effect of the teacher-researcher’s increasing familiarity with the functionalities of the platform, her enhanced understanding of the model of affordance and deeper reflection on its applications in her
research and on its methodological framework, namely Action Research.

As described above, with time, the teacher-researcher’s perception of affordances offered by Blackboard changed and included potentials for action she had not initially identified: the table below (Table 5) presents the analysis of the affordances offered by the platform as at the final stage of the research:

Table 5

Affordance model as applied by the teacher-researcher to Blackboard

<table>
<thead>
<tr>
<th>Blackboard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frame of reference:</strong></td>
</tr>
<tr>
<td>French course taught at the university, including learning objectives and curriculum requirements; professional identity as a lecturer responsible for the unit, this embraces setting up learning outcomes suitable for the students’ level and conforming with the curriculum; selecting an appropriate pedagogy, designing the content; identity as a researcher interested in the application of ICT tools for teaching and learning, including the Blackboard site design; identity as a moderately skilful user of ICTs capable of employing ICT tools provided by the university for learning and teaching; identity as an ICT user with particular attitudes towards new technologies; identity as an individual, including some of her personal attributes.</td>
</tr>
<tr>
<td><strong>Functional context:</strong></td>
</tr>
<tr>
<td>Developing tasks for learners to complete and setting up the online collaboration with an overseas partner university; using Blackboard, as required by the home university, for teaching and learning purposes, this entails providing: linguistic resources, administrative information, teaching materials and appropriate tools to complete scheduled tasks; physical facilities provided by the University (e.g. classrooms, computers, etc.).</td>
</tr>
<tr>
<td><strong>Affordances:</strong></td>
</tr>
<tr>
<td>Satisfying the teacher-researcher's needs of providing an appropriate teaching and learning environment, i.e. an environment allowing application of the chosen pedagogy, to conduct scheduled learning activities and tasks, to complete the online collaboration, to provide teaching and learning documents to students, to communicate with students enrolled in the unit and with their overseas peers; providing learners with opportunities to read and listen in French, to look up information about the unit content, to use French resources uploaded on Blackboard and to revise for weekly tasks and final essay.</td>
</tr>
</tbody>
</table>
4.1.2 Students’ perceptions of affordances offered by the LMS Blackboard

Data investigating the use of Blackboard by students come from 2007 and 2008. In 2007 only a questionnaire was used while in 2008 the data collection methods expanded with the inclusion of a focus group.

The 2007 questionnaire was run after the first semester of Blackboard’s implementation by the University. In consequence, the platform was already used in some units by most students and academics. However, at that time, all parties involved in this research project were still learning about the possible applications of the tool and its functionalities, assessing its affordances and testing ways of using it. The HHB066 learning experience created an opportunity for students and the teacher-researcher to look at the tool in more detail and with a fresh set of eyes.

For the teacher-researcher this experience was one of the elements which influenced the scoping process and resulted in the recalibration of the questionnaire’s focus from the study of the educational/learning environment, with particular attention paid to the usefulness of the ICTs for students’ learning, to the investigation of affordances perceived and taken up by learners. Only the 2008 questionnaire included a set of questions directly referring to the affordances of ICT tools used. For this reason, data collected through the questionnaires do not always provide explicit information on the perception and uptake of affordances by research participants, and, therefore, need interpretation from this angle.

Before tackling the main subject of this section - affordances - some further observations relating to the students’ general reaction to the site, in addition to those given earlier (p. 46) are of relevance. The preliminary analysis of data suggested that the vast majority of students enjoyed the ways in which Blackboard was used through the semester, with one research participant describing it as user friendly, accessible and an ideal portal for information (2008 questionnaire). More detailed analysis of the data reveals that, in general, students appreciated the platform as a comprehensive vehicle for providing teaching and learning resources. In 2008 one research participant observed:

*Blackboard centrally locates all of the resources students need for the course and the links provided save a lot of time, providing an alternative to searching the net independently.*
4.1.2.1 The 2007 questionnaire

In 2007, fourteen out of nineteen research participants filling in the questionnaire responded that they were already familiar with the tool from using Blackboard in other units. The respondents also considered the primary role of the platform to be that of teaching support, that is, a space where a lecturer posts administrative information about the unit, timetable, important dates and teaching materials related to the unit content (21 responses), then a learning tool which can be used by students in order to complete online activities (3 responses). When asked which ICT tool used during the semester they liked the most, students placed Blackboard alongside the Wiki on top of the list. The following table (Table 6) presents a summary of students’ responses collected in 2007 (N=19).

<table>
<thead>
<tr>
<th>Question</th>
<th>Students’ responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which one of the ICT tools used in French 6 did you like the most?</td>
<td>Blackboard</td>
</tr>
<tr>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

In addition to liking Blackboard, the students also considered it a useful tool to assist them with their learning. The table below (Table 7) summarises the 2007 research participants' responses to the question related to its usefulness:

<table>
<thead>
<tr>
<th>Question</th>
<th>Students’ responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>For learning purposes, do you think Blackboard is</td>
<td>Very useful</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

While explaining the reasons for their strongly positive attitudes towards the platform, research participants underlined its accessibility, ease of navigation and logical presentation of the unit content. One student commented: *Info easily accessible on your own page on the site* while another

11 Of nineteen students responding to this question, one selected three responses and one selected two.
wrote: *easy to navigate, refer to it for assessment dates & learning resources.* One student observed: *Useful because of logical consolidation of material in one location.* Two other students commented:

1. *Has an organised way to get information to all students. When I can log in to the BB and check information, I might have forgot to find out in class, it saves a lot of time.*
2. *I think BB is very good for making information and resources available, however it should not be the sole space where the information is available.*

In sum, the comments in the questionnaire suggest that, overall, the students identified the main potential of the platform as an online environment providing administrative information alongside the teaching and learning resources.

Interestingly, while commenting on the usefulness of Blackboard, some students based their opinions on their previous experience using the Online Teaching and Learning platform (OLT). Three out of four comments comparing the two platforms seemed not to perceive the new functionalities offered by Blackboard. Two research participants commented: *BB didn't provide any that OLT couldn't and I don't see how it is much different to OLT.* While directly comparing the two tools, only one participant seemed to have identified new functionalities provided by Blackboard: *BB is a better tool from OLT because you can see posted notices and important dates without going to a calendar.* These comments could indicate that some students did not fully identify the potential offered by Blackboard, instead limiting their reflections to comparison to the tool with which they were already familiar. This could be explained by the ways in which the tool was used at that particular stage of the project. It seems that the student’s frame of reference (i.e. being a French language student enrolled in HHB066) set up an expectation to be provided by a lecturer (or, more broadly, by the University) with a LMS, any LMS, as a tool for managing unit content. Moreover, it also seems that the teacher-researcher did not create specific conditions to fully engage all students with the new tool in a different way from that in which they had previously been engaged while using OLT. Probably, by providing students with more specific instructions on ways of exploiting the platform, the teacher-researcher could have impacted on these students’ functional context encouraging them to identify the potential offered by the new LMS.

It is important to note that although the results point to the importance of the frame of reference and functional context, these notions were not clearly identified and defined at this stage of the research. Based on the preliminary analysis of the data, the scoping activity was repeated and
in consequence the questionnaire was refined. As a result, the notion of affordance was introduced.

4.1.2.2 The 2008 questionnaire and focus group

The survey conducted in 2008 confirmed that students identified the primary function of Blackboard as that of a teaching and learning platform hosting learning resources and providing some administrative support to the unit coordinator. In this version of the questionnaire, a question about learners’ perceptions of affordances offered by Blackboard was explicitly asked and was composed of a list of the three affordances identified by the teacher-researcher. The students were asked to respond to the following question: “Here are some ways we used Blackboard. In your opinion, were they useful for your learning?” The table below (Table 8) summarises the responses from students (N=8):

<table>
<thead>
<tr>
<th>Affordances perceived by the teacher-researcher</th>
<th>Students' responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Reading in French</td>
<td>7</td>
</tr>
<tr>
<td>Looking up information about the unit in French</td>
<td>8</td>
</tr>
<tr>
<td>Revising for weekly tasks/ final essay</td>
<td>8</td>
</tr>
</tbody>
</table>

This question was followed by two additional questions: Did you learn something new about Blackboard in this semester? If yes, please explain and: In your opinion, are there other ways of using Blackboard for learning? When reflecting on new ways of using Blackboard, one research participant stated: When writing my final essay, I revisited links on Blackboard. In addition, I also viewed other students' work on a fortnightly basis, to practice reading French and to expand my way of viewing the tasks. This observation suggests, firstly, that students not only agreed with the teacher-researcher’s perception of the most salient affordances of the tool, but also took them up. Furthermore, the comment made by the last student indicates that this particular learner perceived an affordance not listed by the teacher-researcher: the opportunity of consulting other student’s contributions with the purpose of learning from them. It should be noted that, for the teacher-researcher, the affordance of “revising for weekly tasks/ final essay” included the potential of consulting recommended websites, teaching materials uploaded online, administrative information provided by her on the Announcement page, but not the consultation, by students, of each others’ work in order to learn from their peers. The remark quoted above points to the fact that this learner...
reflected on the ways s/he was using ICTs in the unit, identified the opportunity for an action and took it up. Two questions can be asked in relation to this observation: (1) what influenced the student to perceive this opportunity? and (2) what prompted the student to act and to take up the affordance? The model of affordance is applied to answer these questions. As explained above (section 4.1.1), the role of the frame of reference is to enable the perception of opportunities for an action. In this case, the model of affordance allows the teacher-researcher to interpret the student’s frame of reference as that of a French language learner willing to improve her/his linguistic skills. This frame of reference provides the potential to influence the student’s perception of the educational/learning environment and allowed the respondent to perceive the opportunity for learning from other students’ contributions. As for the functional context that enables the action, it can be suggested that the requirement of completing assigned tasks encouraged the student to take up the affordance and read other students’ work.

This was not the only case of the use of an affordance not initially identified by the teacher-researcher. Two further students also expressed their opinion about other ways of using Blackboard, and both responses suggest that research participants were already familiar with various ICT tools available on the platform and their affordances. The proposed tools, although designed for different purposes, are highly collaborative and would allow students to share thoughts, present their work and discuss topics outside the scheduled classes. One student wrote:

*You could use the general discussion board so the students can discuss topics covered in class or ask questions of their fellow students or the teacher concerning problems with information or reading/ writing from both the class and from outside. Similar idea to the Wiki I guess, but rather than in small groups and for questions not related to assessment.*

This comment illustrates, once again, the role of the learners’ frame of reference in influencing the ways in which they perceived their educational/learning environment. It seems that, as with the previous example analysed above, the student’s identity of being a French language learner, a student enrolled in HHB066 and a frequent user of ICT tools for learning motivated him/her to look for and to identify potential for improving French language skills while using the platform. The student identified and compared the affordances offered by two ICT tools embedded in the platform: the Wiki and the Discussion Forum, seeing different applications for each. The fact of suggesting language activity outside the assessment indicates that the student’s primary intention
was to develop or enhance language skills. Most probably, such willingness allowed the learner to identify tools offering the potential to assist him/her in achieving this linguistic goal.

Another research participant suggested the discussion forum\textsuperscript{12}, chat and blogs as additional tools to be used in the unit. S/he commented:

\textit{Maybe using the 'groups' and 'chat' functions to talk to each other outside of class time? And once we used them to create blogs on French texts/ resources that appealed to us and I liked the blog application for sharing my work.}

Summarising the findings made so far, all the above quotations clearly indicate that the students: (1) were familiar with ICT tools offered by the platform; (2) identified some of the salient affordances offered by these tools without any assistance or direct stimulus from the teacher-researcher; (3) identified affordances not suggested by the teacher-researcher in the survey; and (4) took them up. These findings allow the teacher-researcher to expand the description of the characteristics forming the frame of reference to encompass familiarity with ICT tools through the inclusion of “identity as a moderately skilful user of ICTs” in the description of teacher-researcher’s frame of reference and “identity as a frequent user of ICTs” in the students’ frames of reference.

In the analysis, the model of affordance is applied to interpret these findings. The participant responses recorded above illustrate the connection between all three constituents of the model of affordance: frame of reference, functional context and affordance. The teacher-researcher understands, broadly, the students’ frame of reference as that of being a French language learner enrolled in a unit taught at the university, willing to enhance learning skills, and a frequent and experienced user of ICTs for learning purposes who has particular attitudes towards these tools. It follows from the model that the frame of reference played the role of a catalyst initiating, within the students’ functional context, the process of identifying the tools’ affordances which could satisfy their need for learning French. Taking into consideration the recurrence of respondents' comments, it can be concluded that students, although individuals, to some extent exhibited a collective identity as a Second/ Foreign language learner. Therefore students’ perceptions of the affordances offered by Blackboard coincide to a certain degree with each other but diverge sometimes from the teacher-researcher’s perceptions.

\textsuperscript{12} Although the student uses the word “groups” it seems that s/he was not clear about the functionalities offered by Blackboard at that stage. Based on her experience and after analysis of the student’s comment, the teacher-researcher interprets the word “groups” as a reference to the discussion forum.
The functional context, on the other hand, required students to perform various tasks designed by the teacher-researcher. This was a practical application of the affordances identified by the teacher-researcher who developed the tasks with the intention of using the tool’s potential to the best of her knowledge. This functional context played a double role: it allowed students to take up the affordances made salient by the teacher-researcher and also provided students with concrete examples of the ways in which the affordances could be exploited for learning purposes, and this experience was, most probably, used by them when reflecting on new ways of using Blackboard for learning.

The table below (Table 9) compares the teacher-researcher’s and students’ perceptions of affordances offered by Blackboard, as seen from the teacher-researcher’s perspective:

<table>
<thead>
<tr>
<th>Teacher-researcher</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frame of reference:</strong></td>
<td><strong>Frame of reference:</strong></td>
</tr>
<tr>
<td>French course taught at the university, including learning objectives and curriculum requirements; professional identity as a lecturer responsible for the unit, this embraces setting up learning outcomes suitable for students’ level and conforming with the curriculum; selecting an appropriate pedagogy, designing the content; identity as a researcher interested in the application of ICT tools for teaching and learning, including the Blackboard site design; identity as a moderately skilful user of ICTs capable of employing ICT tools provided by the university for learning and teaching, identity as an ICT user with particular attitudes towards new technologies; identity as an individual, including some of her personal attributes.</td>
<td>French course studied at the university, identity as a French language learner, this includes willingness to improve language skills and competencies associated with the fact of speaking a foreign language (e.g. intercultural competence); identity as a student enrolled in one of the units offered by the university: attending classes, meeting learning objectives, satisfying unit requirements, successfully completing the course; identity as a frequent user of ICTs such as learning platforms, web browsers, social media and specialised software (depending on the discipline studied) for learning, ICT user with particular attitudes towards new technologies; identity as an individual including some of his/her personal attributes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Functional context:</strong></th>
<th><strong>Functional context:</strong></th>
</tr>
</thead>
</table>
| Developing tasks for learners to complete and setting up the online collaboration with an overseas partner university; using Blackboard, as required by the home | Using Blackboard for learning purposes, this involves: checking the site for administrative information, using the site to retrieve information about the content of the weekly
university, for teaching and learning purposes, this entails providing: linguistic resources, administrative information, teaching materials and appropriate tools to complete scheduled tasks; physical facilities provided by the University (e.g. classrooms, computers, etc.).

**Affordances:**
Providing an appropriate teaching and learning environment, i.e. an environment allowing application of the chosen pedagogy, to conduct scheduled learning activities and tasks, to complete the online collaboration, to provide teaching and learning documents to students, to communicate with students enrolled in the unit and with their overseas peers; providing learners with opportunities to read and listen in French, to look up information about the unit content, to use French resources uploaded on Blackboard and to revise for weekly tasks/ final essay.

Another question included in the 2008 questionnaire investigated students' perceptions of Blackboard's usefulness. Overall, research participants found the Blackboard site very useful or useful for their learning. The table below (Table 10) summarises their responses (N=8):

<table>
<thead>
<tr>
<th>ICT tool</th>
<th>Not at all useful</th>
<th>2</th>
<th>Moderately useful</th>
<th>4</th>
<th>Very useful</th>
<th>Response total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

The instruction: *Please give reasons for your opinion* followed the question. Confirming the data from the previous year, students commented positively on the usefulness of the Blackboard site for acquisition of knowledge, for instance they appreciated the ease of using the tool for learning. One
research participant wrote: *Blackboard itself was very well set out, easy to follow and the links when I used them were helpful, in particular the various dictionaries*; and another noted: *Blackboard: very easy to navigate. Ivona updated it frequently with relevant information.* This positive attitude towards Blackboard and the fact of finding this tool useful for learning show that learners were supplied with a valuable example of the successful application of its potential.

In order to investigate further and better interpret responses provided by research participants, the questionnaire was followed by a focus group. During the session, the participants' reflections on the ways in which Blackboard was used during the semester confirmed the positive perception they held of the platform, agreeing that one of the most helpful aspects of Blackboard was the way in which content was presented to them. They appreciated that it provided them with a well-structured, comprehensive and reliable teaching and learning platform. Participant 1 noted:

*The site was very structured and then you knew where everything was. Like you just think, oh I need to find this out and you could click on the link and it would take you there.*

In sum, it is concluded that the students’ frame of reference played a crucial role in influencing their perceptions of affordances offered by Blackboard, while the functional context served as a catalyst for an action and provided examples of good practice. The necessity of fulfilling the unit’s requirements, the students’ willingness to improve language skills, combined with their practical experience, directed their attention towards new means of reaching their goals. In consequence, students focused on their learning, in the wider sense of the term, perceiving and identifying the opportunities for an action allowing them to enhance their skills in French.

The above data collected over the two-year period suggest the following preliminary conclusions:

1) In the majority, the teacher-researcher's perceptions of the affordances offered by Blackboard coincided with those of students.

2) Students were able to identify affordances not initially perceived by the teacher-researcher. There were two examples of such affordances. Firstly, in their responses they presented opportunities offered by Blackboard for consulting other students’ contributions for learning purposes and sharing, in French, thoughts and opinions with other learners enrolled in the unit. The second set of affordances identified by students involved ICTs not employed by
the teacher-researcher such as the chat, a blog or the discussion forum. Students, frequent and experienced ICTs users, identified these and conveyed their suggestions in their comments. Reflecting on these allowed the teacher-researcher to expand the notion of the frame of reference and to include “identity as a frequent user of ICTs such as learning platforms, web browsers, social media and specialised software (depending on the discipline studied) for learning” as a component of students’ frame of reference.

3) The application of the model of affordance to the findings points to a conclusion that the differences in perceiving and taking up affordances by students and the teacher-researcher result from the differences between the frames of reference of each type (learner and teacher-researcher) of social agent (who have different perspectives on the educational/learning environment). In addition, the teacher-researcher and the learners were operating within different functional contexts which provided examples of practical applications of affordances, encouraged their uptake and stimulated perception of new affordances.

4.2 Wiki

According to WikiWikiWeb, the first community website launched by Ward Cunningham in 25 March 1995 for Portland Pattern Repository, a Wiki is “a piece of server software that allows users to freely create and edit Web page content using any Web browser” (WikiWikiWeb). The main concept behind a Wiki is the idea of “open editing” (WikiWikiWeb), that is, it allows a non-technical person to easily publish text online and in real-time using simple operational software. A Wiki supports hyperlinks and crosslinks between internal pages and allows users to write documents collaboratively, with changes appearing almost instantaneously online. A single page is named ‘a wiki page’ while an entire collection of pages internally interconnected, or cross-linked, is referred to as ‘a Wiki’. Due to its collaborative nature, ease of use and instantaneous online publication of edited texts, from the early 2000s, Wiki software was increasingly adopted by business, large organizations, and educational institutions, such as schools and universities (Cubric 2007).

Queensland University of Technology conducted its first Wiki trial in 2005 within the project entitled “Towards critical, collaborative and creative ICT literacies: Integrating innovative on-campus and online learning environments” (Towers, Smith & Bruns, 2005). The project objectives focused on ways of integrating and extending ICT tools used for online teaching and
learning across the School of Humanities and Human Services and the Creative Industries Faculty, and HHB066 was one of the units involved. The software package tested was Wiki Confluence, a commercial version of the program, commonly used in companies and corporations. Since then, a simpler, instructional, version of the Wiki software has been embedded as a standard functionality offered within QUT’s Blackboard. However, for reasons of practicality, the teacher-researcher decided to continue using Wiki Confluence throughout all stages of her research project. This version of the Wiki allowed users to access the site directly without logging into Blackboard first. The fact of having an alternative, direct access to the Wiki available to all participants, including New Caledonian peers, prevented many possible complications related to the international character of the collaboration.

The next section will describe the application and explain the suitability of the Wiki to support French language teaching and learning within the context of HHB066.

4.2.1 The use of the Wiki and the teacher-researcher’s perception of its affordances

Although there were minor differences, the principle guiding the use of the Wiki in the project remained relatively unchanged during all phases and was based on the analysis of functionalities offered by the software and its potential to be applied in a language unit. This analysis was reviewed at the end of each phase and, enriched by students’ feedback on the software, improved the teacher-researcher’s understanding of the Wiki’s functionalities, leading to changes in her frame of reference. Furthermore, this impacted on her perception of affordances and influenced changes in both teaching methods and unit content. Such cyclical evaluation illustrates the concept of continuous improvements advocated by Action Research. The teacher-researcher’s perceptions of the potential offered by the Wiki, as at the end of the project, are summarised below (Table 11):

<table>
<thead>
<tr>
<th>Frame of reference:</th>
</tr>
</thead>
<tbody>
<tr>
<td>French course taught at the university, including learning objectives and curriculum requirements; professional identity as a lecturer responsible for the unit, this embraces setting up learning outcomes suitable for students’ level and conforming with the curriculum; selecting an appropriate pedagogy, designing the content of learning and teaching activities suitable for the selected ICT tool (in this case, collaborative tasks); identity as a researcher interested in the application of ICT tools for teaching and learning; identity as a moderately skilful user of ICTs capable of employing Wiki</td>
</tr>
</tbody>
</table>
ICT tools provided by the university for learning and teaching, identity as an ICT user with particular attitudes towards new technologies; identity as an individual, including some of her personal attributes.

**Functional context:**
Using the Wiki for teaching and learning purposes: developing tasks for learners to complete; setting up the online collaboration with the University of New Caledonia, monitoring the use of the Wiki for completing scheduled tasks that required editing and publishing texts online, monitoring the flow of the collaboration, including communicating with New Caledonian academic peer, checking students’ contributions, providing feedback to students on the quality of their postings; physical facilities provided by the University (e.g. classrooms, computers, etc.).

**Affordances:**
Providing an appropriate tool for conducting scheduled learning activities and tasks, which entails: completing the online collaboration with an overseas partner university; providing learners with an opportunity to communicate and collaborate in writing in French with the teacher-researcher, Australian members of their team and overseas peers, create intercultural links between Australian and New Caledonian team-members, use some intercultural skills (to show respect to a representative of a different culture, to try to understand each other's opinions, to negotiate with a representative of a different culture), to develop social skills such as relationship-building.

The use of the Wiki was initiated by the teacher-researcher who, prior to commencing the collaboration with the University of New Caledonia, requested that QUT's IT Helpdesk provide the Wiki space for the unit. Once this was completed, the teacher-researcher set up the Wiki home page, put all students (UNC and QUT) into groups and created sub-pages for the groups. Each group page contained a welcome from the teacher-researcher and instructions on tasks to be completed by the group by the end of the first week. The figure below (Figure 9) represents the organisation of the Wiki home page.
The Wiki was available to all registered users 24 hours per day, seven days a week and required a special login for access. The key functionalities of this Wiki made it possible for students to:

1) Create and edit pages instantly
2) Edit texts in French
3) Create tables
4) Insert hyperlinks
5) Crosslink pages to other pages on the Wiki
6) Attach, search for, and view attached documents
7) Post comments

Almost all students enrolled in the unit were familiar with the Wiki, since the tool had been used in their preceding French course. However the way in which the Wiki had been used in the previous semester responded to the pedagogical needs of that particular unit and differed from that for HHB066.

Prior to commencing the online collaboration and during the first session with the HHB066 cohort in the language laboratory, the teacher-researcher explained the collaboration timetable, reminded students of the key functionalities of the software and, by completing some activities, demonstrated how the Wiki should be used during the semester. Towards the end of this initial class,
students were asked to complete the first tasks scheduled for the session in the language laboratory, under the guidance of the teacher-researcher.

During the first part of the semester, which was assigned to the collaboration with their overseas partners, students were responsible for regular contributions by adding content to their groups’ pages, and they were informed that assessment criteria included the frequency and quality of contributions on the Wiki. The figure below (Figure 10) presents an example of a group page:

![Group 1 Home Page](image)

**Figure 10:** *Group 1 Home Page.*

In the second part of the semester, following the completion of the collaboration with their overseas partners, QUT students were asked to use the Wiki to write their final assignment. They were instructed to create their own, personal, pages, if they had not already done so.

Figures 11 and 12, below, present the organisational structure of a group’s page, including sub-pages for completing assigned tasks and students’ personal pages. For reasons of confidentiality the names of students have been deleted and their personal pages are represented only by icons (a text page with a star in the top left corner).

Throughout the whole semester, the teacher-researcher added precise instructions for domestic students on how to complete the tasks scheduled for the particular week. The instructions were accompanied by comments regarding the completion of the previous tasks along with suggestions for improvement and encouragements.
Figure 11: Group 4 Home page (top half).

Figure 12: Group 4 Home page (bottom half).
4.2.2 Students’ perceptions of affordances offered by the Wiki

After analysis of all the questionnaires, presented in the discussion below, two general conclusions can be drawn: (1) the students demonstrated a positive attitude towards the Wiki and (2) their perceptions of the most salient affordances offered by the Wiki coincided with those of the teacher-researcher. More precisely, students identified communicating in writing and collaboration as primary affordances of the Wiki. Students also saw the potential of the online collaboration to assist them to improve their linguistic skills, especially writing skills, which was one of the targeted learning outcomes of the unit.

4.2.2.1 The 2006 survey

The reader is reminded that in 2006 the project focused on learners’ attitudes towards ICTs. The table below (Table 12) summarises the 2006 research participants' responses to selected questions related to the benefits of using the Wiki in the unit, particularly with respect to developing writing skills in French (N=9):

<table>
<thead>
<tr>
<th>Questions</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Students’ responses</th>
<th>Students’ responses</th>
<th>Students’ responses</th>
<th>Students’ responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>An asynchronous online collaboration is an effective means of promoting learning writing skills in French</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Providing feedback on the Wiki to other students (both overseas and/or enrolled in this unit) can help with your own development of writing skills in French.</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Overall, an asynchronous collaborative learning using the Wiki had an impact on your writing skills in French.</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Overall, students agreed that the way in which the Wiki was used impacted on their writing skills. It can be concluded that research participants appreciated the Wiki as a means of improving writing.
skills in French in collaboration with other participants, which was seen by them as a benefit for further development of linguistic skills. The following comments from respondents support this conclusion:

1. *Encourages good grammar and spelling.*
2. *Writing skills are acquired gradually, so an online collaboration is the first step in the process. It is still very useful to reinforce existing skills and to encourage new ones.*
3. *The use of Wiki definitely made us make the most of our writing skills. The amount of writing required, style of writing + use of words, definitely made me think about my writing.*
4. *It [the Wiki] gave me practice in order to improve my writing skills*

In their comments on the questions on the Wiki’s usefulness, students also identified other benefits of using the tool, not included in the survey prepared by the teacher-researcher. The following two comments suggest that some learners not only appreciated the value of peer feedback but were also conscious that this activity provided them with the possibility of developing social skills, such as relationship-building, going beyond the production of a collaborative text:

1. *As I like receiving feedback I try to give it to others. I believe it helps to know what other people think about your work, it helps you to improve + develop.*
2. *Because we know that someone else (besides our teacher Iwona) will be reading our texts. I think that (maybe?) an unconscious effort is put in to ensure that our level of language is correct + more impressive*

The second quotation indicates the student’s willingness to impress her/his peers. Such a need can suggest readiness for deeply engaging in the activity by establishing a relationship with the native speakers.

The survey results also indicate a certain ambivalence in students’ reflections with regard to the impact of the asynchronous collaborative learning on their language skills. It is important to note that, although the teacher-researcher made an effort to assure the harmonious flow of the collaboration, not all participants contributed on a regular basis. As a result, some learners felt frustrated and did not see this activity as having a (positive) impact on their learning. When reflecting on the question related to the Wiki’s effectiveness in promoting writing skills in French, the following comments were made:

1. *It help to read native French speakers’ writing, but it is often difficult to get feedback with regards to written work from other students*
2. It is a good idea, but previous experience has been that there is difficulty making it flow (both sides posting regularly, getting feedback, etc)

3. I found it difficult to effectively use my peer’s feedback as I didn’t really understand what he was saying some of the time. And by the time he gave us the feedback we had already moved onto the next topic

The nature of the activity required the application of relationship-building skills from students in order to create a mutual affiliation within the context of the unit. To establish and maintain a fruitful relationship with their Australian and New-Caledonian colleagues, students needed to develop appropriate strategies to deal with cases of broken collaboration and ineffective feedback resulting from the lack either of systematic responses from their peers or of suitable strategies for requesting clarifications.

The focus on learners’ attitudes, although attracting the teacher-researcher’s attention to these difficulties, did not provide appropriate tools for explaining the reasons for them or for advising on the development of social skills. When the model of affordance came to the fore, it offered a lens for analysis and interpretation. From this angle it can be suggested that the students’ frames of reference impacted on their ability to build relationships within the online environment of HHB066. It appears that for some students, their usual relationship-building techniques turned out to be inappropriate, because they did not customise them to meet the needs of this particular environment. It should not be forgotten that most of the students were enrolled in the second or third year of their degrees. At this stage, the development of one of the graduate capabilities - communication skills within various environments (i.e. face-to-face, virtual, professional, private, educational/learning), should have already been initiated with students transitioning into the phase of practical applications of these skills. It can be suggested that the functional context of HHB066, by requiring the completion of the task online, provoked the perception of the relationship-building affordance, but in some cases it has not been taken up. There are several potential explanations for this. For instance, some students might not have fully developed the skill of communicating within a virtual environment, while others were prevented from successfully communicating with their overseas peers because of the intercultural nature of the activities. That is, they might not have (fully) developed intercultural communication skills. When reflecting on this question at the end of the project, it was concluded that, prior to commencing an online collaboration, more attention needs to be paid to the development of students’ online social skills and that some form of discussion of what makes an online collaboration distinctive would also assist.
4.2.2.2 The 2007 survey
By 2007 the scope of the research was shifting towards the notion of affordances, and for this reason the questions used in the 2007 questionnaire were modified versions of those of 2006. The teacher-researcher needed a theoretical framework to investigate and explain what impacted on students’ decisions to use or not to use, or to use in a particular way, the ICTs proposed by the unit. Also, the 2006 survey revealed some difficulties with the flow of collaboration, and this feedback prompted the teacher-researcher to investigate the factors affecting the quality of the online interaction. The model of affordance offered the lens through which learners’ personal attitudes and behaviour could be looked at, the results explicated and findings interpreted. From the perspective of the model of affordance, the importance of the students’ frame of reference came to the forefront of the researcher’s interest. At this stage, the teacher-researcher perceived students’ frames of reference as their identity as university students who were required to use ICT tools in a French language unit, and who had their own attitudes towards new technologies, the university, the unit, the teacher and the language studied. The understanding of the concept of the students’ frame of reference resulted directly from conclusions drawn from the research conducted in the previous year.

In response to the preliminary findings of the previous survey some changes had been made in the content of the unit and the structure of the tasks. Detailed information regarding these modifications has been provided in the Research Methodology, however the reader is reminded that in 2007 the collaborative component included more contributions from the teacher-researcher, and that the online exchange with overseas peers focused on feedback on linguistic accuracy. In addition, prior to commencing the online activities, the teacher-researcher consulted her New Caledonian colleague with regard to strategies for engaging the overseas students, which resulted in the inclusion in the unit calendar of deadlines for providing feedback and instructions regarding ways of commenting on linguistic accuracy.

The results of the survey conducted in 2007 confirmed the preliminary conclusions of the 2006 survey. The table below (Table 13) summarises students’ personal attitudes towards the Wiki used in the unit (N=19):
Table 13
Students’ personal attitudes towards the Wiki used in the unit, the 2007 survey

<table>
<thead>
<tr>
<th>Questions</th>
<th>Blackboard</th>
<th>Wikis</th>
<th>Online links</th>
<th>CD-ROM</th>
<th>Power-Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which one of the ICT tools used in French 6 [HHB066] did you like the most?</td>
<td>7</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>You like receiving feedback from overseas peer students when completing asynchronous online collaboration</td>
<td>Strongly agree</td>
<td>Moderately agree</td>
<td>Agree and disagree equally</td>
<td>Moderately disagree</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>How would you rate Wikis for your learning needs?</td>
<td>Very useful</td>
<td>Useful</td>
<td>Neither useful nor useless</td>
<td>Useless</td>
<td>Very useless</td>
</tr>
</tbody>
</table>

The results indicate that students liked using the Wiki in this unit, and the Wiki (along with Blackboard) received the highest number of positive answers of all ICT tools listed. Students also stated that they enjoyed receiving feedback from their overseas peers. One respondent commented:

Wiki + online links were the most enjoyable. I enjoyed getting feedback from New Caledonian students on the wiki. I liked being able to add to my “work in progress” on the wiki.

This positive attitude was based on an appreciation of the Wiki as a useful tool assisting students with their learning needs. Other open-ended comments from students gave more insight into their evaluation of the Wiki as a tool responding to their learning needs. The first two comments underline the collaborative aspect of the Wiki, while the next two focus on its potential to enhance students' linguistic skills:

1. Wikis are simple to use and offer us the chance to collaborate.
2. Very useful because you can add to your work and also have discussions with people about your work. And see other peoples' work.
3. Use of the wiki for exchange with native French speakers was very valuable. Corrections and feedback by native speakers + lecturer was one of the areas I feel most developed my language skills. The more detailed feedback available with wiki technology the better the learning outcome.
4. I would like to see more peer-to-peer feedback as it is the best way to develop advanced language skills. It is the best way to develop language production skills.
which are the most challenging.

The above data, as in the previously-discussed 2006 survey, suggest the general conclusion that students had positive attitudes towards the Wiki, which could be explained by their rewarding collaborative experience, and by the opportunity of improving their language skills. Seen through the model of affordance, it can be concluded that students identified written collaboration with its potential to improve their language skills as one of the most salient affordances offered by this ICT tool. The next year’s survey was designed to investigate further the affordances of the Wiki and to provide answers to the following three questions: (1) which affordances were the most salient to students? (2) were the students able to identify different affordances from the teacher-researcher? and (3) which affordances were taken up by students and why?

4.2.2.3 The 2008 survey and focus group

Finally, the data collected in 2008, by comparing the teacher-researcher's perception of affordances of the Wiki with those reported by students, directly addressed what had become the central research question. For this survey, the teacher-researcher made a list of affordances perceived by her while using the Wiki in the unit. This list of affordances was followed by two open-ended questions: Did you learn something new about Wikis this semester? and In your opinion, what are other ways of using a Wiki for learning? The table below (Table 14) summarises students’ responses (N=8):

<table>
<thead>
<tr>
<th>Affordances perceived by the teacher-researcher</th>
<th>Students’ responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicating in writing in French with other, Australian, members of your team</td>
<td>Yes</td>
</tr>
<tr>
<td>Writing in French</td>
<td>8</td>
</tr>
<tr>
<td>Communicating in French with New Caledonian peers</td>
<td>7</td>
</tr>
<tr>
<td>Collaborating with the Australian members of your team</td>
<td>8</td>
</tr>
<tr>
<td>Collaborating with New Caledonian peers</td>
<td>7</td>
</tr>
<tr>
<td>Creating intercultural links between you and the New Caledonian peers</td>
<td>8</td>
</tr>
<tr>
<td>Using some intercultural skills (to show respect to a representative of a different culture, to try to understand each other's opinions, to negotiate with a representative of a different culture)</td>
<td>8</td>
</tr>
</tbody>
</table>
Due to the fact that, in the majority, respondents agreed with the teacher-researcher, it can be concluded that their (i.e. the students’ and teacher-researcher’s) perceptions of affordances coincided. This was confirmed by answers to open-ended questions which emphasized both the possibilities for collaboration and the potential for improving linguistic skills. One research participant wrote:

*I liked how we were expected to do [tasks] each week... it forced us to utilise our French on a regular basis. It was also a good chance to interact with other class members with who we normally did not spend a lot of time with.*

Another research participant commented:

*I really like how we could do collaborative work with the Wiki. At first, it was a bit difficult to manage as a team. However, due to its weekly nature, I think we all really improved over the semester.*

Another student noted:

*Wiki – very useful for collaborating with other students. I really enjoyed this aspect of class and the features of this tool.*

The data analysed indicate that students were able to perceive not only the affordances of the Wiki selected by the teacher-researcher for exploitation in this unit, but also additional affordances, not identified by the teacher-researcher, such as editing the text in a flexible manner, and developing their ICT skills. The following comments justify these observations:

1. *I like how we can continually change our work with the “edit” button without having to rewrite our paper.*
2. *In the modern world technology is rapidly advancing + becoming more electronic so it is important to develop French typing + “chatting” skills. For the future as most jobs using French will employ electronic elements.*

The focus group conducted in 2008 gave the opportunity for more in-depth analysis of responses. When reflecting on the collaboration, a focus group participant commented:

**Participant 2:** Wiki, I think with collaborating with others, it's interesting because you have to, hum..., when someone posts something you have to then read it and you have to reply to it, and then it's sort of like conversation that continuously keeps on
growing. So with the collaboration you have to ensure that you have always checked it, so you go back to it, read it all through again and then put some more and then as you are putting more stuff onto Wiki you have to be conscious that other people will be putting more. And then you've got negotiation skills that go in there because as a group you had to decide on some decisions on what is going to be put into the task and what's not. So I think it definitely helped me to build up those loose skills of collaborating with other members.

This comment, especially the mention of negotiation skills, indicates that, as in the case of the 2006 survey and relationship-building skills, students were able to identify not only the potential for collaborating, but also had a deeper understanding of skills being developed through collaboration, which were covered by Participant 2’s expression “loose skills”. From the teacher-researcher’s perspective, these “loose skills” could be understood as ‘people skills’ i.e. maintaining interpersonal communication, making friends, building relationships, influencing people. It is important to make the point that students were able to perceive and name a large variety of social skills which, on the list prepared by the teacher-researcher, were expressed more simply with words “collaborating” and “creating intercultural links”. Such a fine description of skills proves the depth of students’ reflections. This conclusion about students’ consciousness of developing complex skills is confirmed by another focus group comment:

**Participant 1:** But it was also a bit frustrating at times when people didn't do their work. And, in my group in particular, like there was one person who didn't do very much each week, so we talked to the other people and asked them to do a bit more and when they didn't do it we just decided that, like the remaining people will do more together, and will pull together a bit more. So, and also you learn a bit more about deadlines, like the first week we got up to the end of the week and we didn't have,... we hadn't negotiated very much, we did each just for our own part, but we hadn't time to pull it up, to negotiate. But then, towards the end that improved. And also, like I had friends in class that weren't necessarily part of my group but by the end of Wiki I knew the people in my group a bit better, which was nice.

Elaborating further on the idea of collaboration, focus group participants identified the functionalities of the tool that had a positive influence on the ways in which they were using it. Among the positive aspects of the Wiki, the focus group participants mentioned accessibility (24 hours per day, seven days per week) and ease of use. While reflecting on the positive aspects of the Wiki, Participant 1 said:

*I liked that because you could go home and practise French on them, and then you*
could sort of read what other people were saying, and see their level of French; and
to see when they made a mistake and try... or say oh that's a mistake in your mind
and you could look at your web and say is it similar.

This gave flexibility to the students and allowed them not only to develop their linguistic and
analytic skills, but also assisted them in growing as autonomous learners, capable of taking control
over their own learning.

4.2.2.4 Students’ perceptions discussed through the model of affordance

In sum, all the above-mentioned data lead to the following findings:

1) Both groups of social agents, students and the teacher-researcher, identified communicating
in writing and collaborating along with the potential of enhancing language skills as the
most salient affordances offered by the Wiki.

2) Students were able to identify affordances not initially identified by the teacher-researcher,
such as editing a text in a flexible manner or developing their ICT skills. Students were also
able to perceive and name affordances not specifically labelled by the teacher-researcher in
the survey (i.e. the social aspect of the collaboration). The two participant groups (students
and the teacher-researcher) interpreted differently the potential for an action offered by the
same ICT tool.

The data indicate that what for the teacher-researcher was an opportunity for improving learners’
linguistic skills for students became an obstacle in taking up another affordance, i.e. editing a text in
French. More specifically, although some research participants enjoyed the possibility of flexible
editing, some others did not comment positively on all aspects of the Wiki’s potential. That is, the
question *When given the opportunity, you would rather write on a) paper b) Wiki* was used in two
consecutive surveys, in 2006 and 2007. In both surveys the majority of research participants
preferred writing on paper, and their responses mentioned an important aspect of using the Wiki –
difficulties with editing a text in French. The table below (Table 15) summarises the responses
gathered from the surveys conducted in 2006 (N=9) and 2007 (N=19):

<table>
<thead>
<tr>
<th>When giving the opportunity, would you rather write on:</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiki</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Paper</td>
<td>7</td>
<td>11</td>
</tr>
</tbody>
</table>
In the comments explaining their negative opinions, research participants mostly focused on technical difficulties encountered when using the software. For instance, one student commented:

*Wikis are an extension of writing on paper, in that they allow you to write in a word-processor and “paste” the text in the program. However, accents can make a problem because the program doesn’t (always) allow them to be used. Certain formatting can be compromised also.*

In the 2007 survey, four students offered their own suggestions – MS Word or Blog – without being provided with these alternatives by the teacher-researcher. Students suggesting MS Word justified their opinions by underlining the technical difficulties of editing in French on the Wiki. One student commented: *I'd actually use a Word document as it is easier than Wiki and has all the shortcuts for the accents. It is much too slow on Wiki. It also has spell check. And another student commented: Because Microsoft Word offers French auto correct.*

The 2008 version of the survey did not contain this question, however similar comments from students can be identified. For instance, one student remarked: *I found it easier to just write in Word and then copy and paste into Wiki. It is too hard to type accents in Wiki.* One research participant stated:

*I prefer to use Microsoft Word to develop text which is then transferred to the Wiki; I had some problems losing extensive amounts of text on the Wiki so working off-line first was more effective.*

In sum, based on data collected over three years, the conclusion can be drawn that those participants who provided negative comments on the potential of the Wiki for authoring texts and communicating in French focused on technical difficulties related to functionalities of the software rather than on affordances for collaborating in writing with various members of their team. It seems that these difficulties were identified in contrast to other software packages, for example MS Word, the software with which all students were very familiar and which they were using on an everyday basis. The answers provided by participants suggest that linguistic accuracy (correct grammar and
spelling including accents) played an important role for the students.

The question could be asked as to why some students put so much emphasis on the technical difficulties with editing and formatting the text on the Wiki. From the perspective of the teacher-researcher, the affordances offered by the Wiki – the potential to enhance writing skills through collaboration using French as the language of communication – were nested within the functional context of the tasks, i.e. their collaborative nature, the online publication of edited texts, and the functional context was embedded in a broader concept – the teacher-researcher's frame of reference - as described previously. From this perspective, the technical difficulties of editing the text in French, such as using accents or formatting, were not seen as an important obstacle preventing students from using the ICT tool. The table below (Table 16) summarises the differences between the perception of affordances by the teacher-researcher and by the students:

<table>
<thead>
<tr>
<th>Teacher-researcher Frame of reference:</th>
<th>Students Frame of reference:</th>
</tr>
</thead>
<tbody>
<tr>
<td>French course taught at the university, including learning objectives and curriculum requirements; professional identity as a lecturer responsible for the unit, this embraces setting up learning outcomes suitable for students’ level and conforming with the curriculum; selecting an appropriate pedagogy, designing the content of learning and teaching activities suitable for the selected ICT tool (in this case, collaborative tasks); identity as a researcher interested in the application of ICT tools for teaching and learning; identity as a moderately skilful user of ICTs capable of employing ICT tools provided by the university for learning and teaching, identity as an ICT user with particular attitudes towards new technologies; identity as an individual, including some of her personal attributes.</td>
<td>French course studied at the university, identity as a French language learner, this includes willingness to improve language skills and competencies associated with the fact of speaking a foreign language (e.g. intercultural competence); identity as a student enrolled in one of the units offered by the university: attending classes, meeting learning objectives, satisfying unit requirements, successfully completing the course; identity as a frequent user of ICTs such as learning platforms, web browsers, social media and specialised software (depending on the discipline studied) for learning, ICT user with particular attitudes towards new technologies; identity as an individual, including some of his/her personal attributes.</td>
</tr>
<tr>
<td>Functional context: Using the Wiki for teaching and learning purposes, this involves: developing tasks for</td>
<td>Functional context: Using the Wiki for learning purposes, this involves: completing scheduled tasks,</td>
</tr>
</tbody>
</table>
learners to complete; setting up the online collaboration with the University of New Caledonia; monitoring the use of the Wiki for completing scheduled tasks that required editing and publishing texts online, monitoring the flow of the collaboration, communicating with New Caledonian academic peer, checking students’ contributions, providing feedback to students on the quality of their postings; physical facilities provided by the University (e.g. classrooms, computers, etc.).

**Affordances:**

Providing an appropriate tool for conducting scheduled learning activities and tasks, this entails: completing the online collaboration with an overseas partner university; providing learners with an opportunity to communicate and collaborate in writing in French with the teacher-researcher, Australian members of their team and overseas peers, create intercultural links between Australian and New-Caledonian members of the team, use some intercultural skills (to show respect to a representative of a different culture, to try to understand each other's opinions, to negotiate with a representative of a different culture), to develop social skills such as relationship-building within educational/learning environment.

participating in the online collaboration with the University of New Caledonia, regularly contributing on the group and individual Wiki pages by editing texts and publishing them online; physical facilities provided by the University (e.g. classrooms, computers, etc.).

**Affordances:**

Enhancing linguistic skills through the online written collaboration; developing social skills such as communication, negotiation, relationship-building, influencing people; developing ICT skills e.g. learning how to edit and publish instantaneously text online.

The survey results suggest that the requirements of linguistic appropriateness and correctness constituted an important element of the students’ frames of reference (i.e. successfully completing the unit). The evaluation criteria for HHB066 clearly stated linguistic accuracy to be an important component, totalling six out of ten percent allocated to the online collaboration. It could be concluded that students who were aware of this requirement preferred to turn to a different ICT tool, i.e. MS Word, which was a part of their everyday environment and which provided them with some additional functionalities such as spell check. This could give the students confidence that, to some extent, they were taking steps to satisfy the criteria for linguistic correctness by minimising the risk of making, for example, a spelling mistake. In other words, the students were operating in an
environment which determined that linguistic accuracy was of high importance to them. For this reason, for many students a successful collaboration was defined primarily as a linguistically correct one.

The above data on Wiki use collected over the three-year period confirm the preliminary conclusions drawn from the section on the Blackboard site with respect to the ways in which the potentials for an action were perceived by all social agents. Overall, the affordances identified by the teacher-researcher coincided with those identified by students. For instance, the teacher-researcher’s perception of the potential for communicating online as the most salient affordance offered by the Wiki coincided with that of the students. Students also agreed with other affordances of the Wiki identified by the teacher-researcher and suggested in the survey, such as the development of intercultural skills.

Another preliminary conclusion from the Blackboard section confirmed by this part of the project was that students were able to identify affordances which the teacher-researcher did not perceive and did not select for exploitation in the unit. For example, with the Wiki students identified the development of negotiation skills and relationship-building affordances, which did not figure on the list proposed by the teacher-researcher.

This section provided evidence of the importance of the frame of reference for the perception and of the functional context for the uptake of affordances. It has been explained above that, similarly to the conclusions drawn from the previous segment on Blackboard, the differences between perception and uptake of various affordances by the teacher-researcher on the one hand and students on the other can be explained by the discrepancies between their frames of reference. This observation leads to the conclusion that successful collaboration between a teacher (-researcher) and students depends on the following factors:

1) The extent to which their frames of reference overlap
2) Awareness of the existence of discrepancies in frames of reference
3) The potential to manage the differences

For instance, while developing assessment criteria, the teacher-researcher did not anticipate the impact they would have on students’ behaviour. The teacher-researcher created the students’ interest in linguistic accuracy without considering certain aspects of the effects this requirement would have. This example of disparities between frames of reference once again draws attention to the need for a careful study of the learning and teaching environment. Besides constantly reflecting on their own frames of reference, educators should also closely investigate students’ frames of reference. Such knowledge will assist teachers with creating appropriate conditions stimulating
students to take up affordances selected for use.

This section focused on the Wiki, a highly collaborative tool used during all three stages of the project and with different LMS platforms. The next section will look more closely at online links and their affordances.

4.3 Online links

The richness of French sites available online and their potential to be used within an educational/learning environment allowed the teacher-researcher to build a large database of online links recommended as a learning resource for HHB066 students. The process of building the database was ongoing, and for three years the teacher-researcher was engaged in modifying the content of the database as a result of the pedagogical changes implemented in the unit. As already explained in the Research Methodology, although the main focus of the unit remained the same during the three years of teaching, the teaching and learning approaches were revised, students' tasks modified and the selection of online sites updated. The table below (Table 17) presents a summary of affordances perceived by the teacher-researcher, as identified at the end of the project:

<table>
<thead>
<tr>
<th>Table 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordance model as applied by the teacher-researcher to the online links</td>
</tr>
<tr>
<td>Online links</td>
</tr>
<tr>
<td><strong>Frame of reference:</strong></td>
</tr>
<tr>
<td>French course taught at the university, including learning objectives and curriculum requirements; professional identity as a lecturer responsible for the unit, this embraces setting up learning outcomes suitable for students’ level and conforming with the curriculum; selecting an appropriate pedagogy, designing the content of learning and teaching activities suitable for the selected ICT tool (in this case, tasks using up-to-date authentic materials and online resources); identity as a researcher interested in the application of ICT tools for teaching and learning; identity as a moderately skilful user of ICTs capable of employing ICT tools provided by the university for learning and teaching; identity as an ICT user with particular attitudes towards new technologies; identity as an individual, including some of her personal attributes.</td>
</tr>
<tr>
<td><strong>Functional context:</strong></td>
</tr>
<tr>
<td>Using the online links for teaching and learning purposes: selecting appropriate online resources, putting online links on Blackboard site, developing tasks for learners to complete, providing online resources for all learners involved in the unit, instructing students on the variety, nature and the potential of the chosen online links, encouraging students during the face-to-face contact hours to use online links selected by the teacher-researcher; physical facilities provided by the University (e.g. classrooms, computers, etc).</td>
</tr>
</tbody>
</table>
Affordances:
Providing an appropriate tool for conducting scheduled learning activities and tasks, to enhance students’ language skills by: looking up information and words in French (using online dictionaries, online encyclopaedias, etc.); checking grammar and/or spelling in French; revising for weekly tasks and/or final essay; reading newspapers in French; watching TV/video documents in French; listening to radio stations in French; surfing around French-language sites.

The next section will briefly outline the ways in which the online resources were used in the project.

4.3.1 The use of the online links and the teacher-researcher’s perception of their affordances

Similarly to the case of the Wiki, the principle guiding the use of online links in the project remained the same during all three phases. First, the teacher-researcher explored some online sites (newspapers, TV sites, radio stations, educational resources such as dictionaries, verb conjugators, grammar references,) and selected those which, from her perspective, offered the most potential to be meaningfully used by students either in the classroom with the teacher or autonomously. The intention was to offer students a vast panoply of resources that could be used not only for completing assigned tasks, but also for autonomous learning, i.e. for learning about various aspects of contemporary French culture not treated in the course. Next, these sites were embedded in the content of the unit, attributed to particular pedagogical activities and links to them uploaded to Blackboard to be used by learners. It appears that students appreciated the breath and the depth of these resources. For instance, in 2008, commenting on the use of online links in the unit, one research participant wrote:

I became aware of the excellent quality and abundance of French resources available online which I can use for my own personal study of French.

A little later, in response to the question In your opinion, are there other ways of using online links for learning? the same research participant replied:

Keep using them, they are great and really effective form of teaching because they include real, genuine material.

The ways in which online links were used were closely related to their position on the unit’s Blackboard site. Prior to the teaching period, the teacher-researcher updated the list of online links
and uploaded them to the LMS platform, organising them in two parent folders. As has been seen earlier in this chapter (pp. 43-45), the first folder was explicitly called ‘Online resources’. Inside, there were sub-folders categorised according to the genre of the resource, e.g. French television channels, French radio stations, French newspapers, French-French dictionaries, grammar resources. This folder played the role of a ‘media centre’ where online resources were stored. Online resources were also provided in the second folder called ‘Unit content’, divided into weeks which contained, amongst other types of resources, relevant online links. The links included in this folder were restricted to the resources used for completion of the task scheduled for a particular week. The intention of the teacher-researcher in organising the online links in this way was to ensure that each student, regardless of his/her level of interest in the topic, was provided with specific and reliable online resources to be used for completing scheduled tasks.

As mentioned above, the first session with the HHB066 cohort, apart from time spent on discussing organisational and administrative issues, was set aside to present the content of the unit, including the teaching and learning approaches. During this session the teacher-researcher briefly talked about the organisation of the LMS platform and explained where the online links were located. During the teaching period, the teacher-researcher regularly used online links as one of the primary teaching resources in the classroom and the language laboratory. For instance, the online material viewed in class could constitute a starting point for completing tasks scheduled for the session, such as an analysis of a given genre (e.g. television broadcast of daily news), a class debate or a role play.

4.3.2 Students’ perceptions of affordances offered by the online links

In 2006 the online links were not included in the project’s scope and for this reason relevant data come from research conducted in 2007 and 2008. After a revision of the project at the end of the first phase, the decision was made to investigate further the ways in which students were using online resources. This was dictated by the fact that these resources were already extensively used by the teacher-researcher in 2006, and by widening the breadth of the research to include them, their role in enhancing students’ learning would be analysed and recognised.

4.3.2.1 The 2007 survey

As explained above, in the early phases of the research, the teacher-researcher’s attention focused on the importance of the educational/learning environment from the perspective of learners’ attitudes towards ICTs. This attracted her attention to particular elements within that environment allowing social agents to make skilful and purposeful use of selected technological artefacts. In
consequence, the teacher-researcher broadened her research to deal with two issues: learners’ attitudes towards ICTs used in the project and affordances offered by these technological instruments. For this reason, the 2007 questionnaire contained questions about students’ attitudes towards online links and the ways in which they were used during the semester.

Overall, it seems that students enjoyed this type of learning resource because they described it as practical, always available and easy to use. The analysis of the questionnaire used in 2007 suggests that research participants appreciated the online links as a means of enhancing their learning. The table below (Table 18) summarises the students' responses to the question related to the usefulness of online links (N=19):

<table>
<thead>
<tr>
<th>Question</th>
<th>Students’ responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>How would you rate online links for your learning needs?</td>
<td>Very useful</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

The results of the questionnaire clearly indicate that students saw the online links as a useful means of responding to their learning needs. The accompanying comments confirm this observation. For instance, a research participant who rated the links very positively commented: *It's good to know places to find extra resources on hand.* Other research participants indicated the provision of additional learning resources as an important feature of the online links, stating for example: *The online links to the dictionary and conjugator were useful.*

It seems that learners showed a positive attitude towards the online links because they perceived the benefits offered by these tools. As students they were motivated to successfully complete the unit, which entailed fulfilling the linguistic accuracy requirement, one of the assessment criteria of which they were highly aware, as has been shown in the previous section on Wiki. The data imply that the online links provided assistance in the form of a reliable resource which was constantly available online and was selected by a trusted person, i.e. the teacher-researcher. The comments cited below lead to the same finding. One research participant commented: *Time efficient, helpful knowing that we are using a valid link and the information will be good,* while two further respondents who also judged the online links very useful, wrote:

1. *Quick, easy, helpful.*
2. *Links to specific high quality resources in contrast to Google searching a wide field without finding appropriate links.*

In short, the responses to the 2007 questionnaire suggest that from the learners' perspectives, the online links were valued as useful learning resources because of their usefulness, accessibility and reliability. The recurrence of these characteristics in students’ responses may signify that they needed tools that could not only satisfy their needs (e.g. checking a word in an online dictionary), but would do it in a certain way, namely quickly and efficiently.

This suggestion is confirmed by further analysis. One section of the 2007 questionnaire asked about the forms of dictionaries used by students when completing a task online. It is important to note that although there was an online resource – Lexilogos - provided on the Blackboard site and recommended by the teacher-researcher, the questionnaire did not refer to any particular online site and that, as we will see, the reported use of online dictionary included other sites with which the students were familiar. The table below (Table 19) summarises students’ responses (N=19):  

<table>
<thead>
<tr>
<th>Question</th>
<th>Only paper-based dictionary</th>
<th>Both</th>
<th>Online dictionary</th>
</tr>
</thead>
<tbody>
<tr>
<td>While completing a task online, which form of dictionary do you use?</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>

The responses show that, despite the availability of specialised websites selected by the teacher-researcher, many learners preferred to use a combination of dictionaries – online and paper-based while completing a task online. In the open-ended comments accompanying the question, students who reported using both forms of dictionary seemed unable to explain entirely satisfactorily the reasons behind the use of the two types of dictionaries. One research participant commented: *I use both because that is how I work most efficiently.* This comment does not explain the relationship between efficiency and the use of both forms of dictionary. Another respondent wrote: *Both,* and when asked to give a reason for his opinion stated: *Cause my French is bad,* without explaining the connection between fluency in French and the use of a specific type of a dictionary. The use of paper-based dictionaries appears to be dictated by habit. One research participant wrote: *Both. Habit,* while another respondent wrote: *Both. Depends on my mood, I still like doing things the old*
fashioned way somedays. It also could be concluded that some learners seemed to be unaware of differences between online dictionaries and other types of online sites, created for linguistic purposes. For instance, one student stated: Both. Paper based is safer, though smaller & slower; Forums online are a great help. However, no online forum was recommended as a linguistic or language online reference tool in this unit. As stated above, the online resource recommended for use was Lexilogos, a French-French dictionary selected by the teacher-researcher for its reliability and comprehensiveness. During the contact hours in the computer laboratory, the teacher-researcher noticed that students often used WordReference instead of Lexilogos. The difference between the two sites is based on their functionalities. That is, WordReference is a website which provides links to a series of bilingual dictionaries and translation options with the main language being English, whereas Lexilogos focuses on French and provides links to a selection of specialised dictionaries (synonyms, pronunciation, idiomatic expressions) and encyclopaedias with the only translation option being French<->English. By selecting and recommending Lexilogos to the students, the teacher-researcher aimed to assist learners with the development of their language skills. More precisely, looking up words in a monolingual dictionary requires learners to pay more attention to the language, it enhances comprehension skills and promotes the development of vocabulary. However, as already mentioned, the teacher-researcher noticed that some students preferred Wordreference. This reflection was confirmed by partnership classroom observation reports completed on three separate occasions and by two different Research Participant Advocates. In August 2007, one Research Participant Advocate noted: Use of additional tools observed during the session: Wordreference to look up the meaning of new terms. A similar observation was made in October: The primary resources used were Wordreference dictionary, Google and online translation tools. These remarks confirm the indication that students liked to check words online in a particular way, i.e. quickly and efficiently. They preferred to use a tool with which they were familiar enough to use it quickly when they needed to find a word or its translation. Based on the fact that at the beginning of the semester, the teacher-researcher presented the Lexilogos website to students and provided induction on how to use it, it could be suggested that the complete potential offered by this online dictionary was made explicit to students, but not fully explored by them. The remaining question is why.

In 2007 the project focused on learners’ attitudes, and did not include the appropriate tools to explicate the reasons why certain behaviours, like the ones quoted above, took place. The model of affordance, which came to the fore in 2008, offered the theoretical framework for further investigation and interpretation of data.
4.3.2.2 The 2008 survey and focus group

The 2008 questionnaire was a reformulation of the 2007 survey designed to focus on the notion of affordance. As explained in the introduction to this chapter, the broad question about the usefulness of the ICT tools used in the unit was followed by specific questions comparing the teacher-researcher's perception of affordances of the ICT tools with those perceived by respondents. The results confirmed preliminary conclusions made in 2007 that, overall, students found the online links very useful or useful for their learning. The table below (Table 20) summarises the responses (N=8):

<table>
<thead>
<tr>
<th>Table 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>The usefulness of online links provided on Blackboard, the 2008 survey</td>
</tr>
</tbody>
</table>

<p>| Please rate, from 1 to 5, the usefulness for your learning of the following ICT tools |</p>
<table>
<thead>
<tr>
<th>ICT tool</th>
<th>Not at all useful 1</th>
<th>Moderately useful 3</th>
<th>Very useful 5</th>
<th>Response total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online links provided on Blackboard</td>
<td>0 0 0 4 4</td>
<td></td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

When asked to provide reasons for their opinions, research participants mentioned such facts as the links being reliable and helpful. One respondent wrote: Online links: without some of these links, I would not have had a clue where to search, and another noted: and the links when I used them were helpful, in particular the various dictionaries. As in previous years, in their majority, students found the online links useful and very useful for their learning. The responses provided during the focus group explained the grounds for such a positive opinion, one participant, for instance, making the following reflection:

**Participant 1:** [...] but with the French news it’s always there so I didn't really have an excuse, like oh no, I have missed this. And also what was good, sometimes if I had a break I would just watch ten minutes of it and then put it away, you could chose your own engagement level. And I think that’s true for all the links, you could skim the headlines, or you could get really into the link.

This research participant pointed to the versatility of the links as the main reason influencing his/her positive opinion. For instance, they:
1) could be accessed at any time, from any computer connected to the internet,
2) offered a selection of content the student was interested in, and
3) presented a choice between scanning the titles of the links and using them.

Seen from the perspective of the model of affordance, it can be concluded that the student’s frame of reference of a French language learner interested in improving his/her language skills influenced the perception of the affordances of the tool, such as those quoted above (points 1-3). At the same time, the student’s particular functional context, that is the freedom of choosing his/her own level of engagement allowed the affordances to be taken up.

When developing the questionnaire, the teacher-researcher made a list of affordances perceived by her prior to and during the use of the online links in the unit. Table 21 summarises the students’ responses (N=8):

<table>
<thead>
<tr>
<th>Affordances perceived by the teacher-researcher</th>
<th>Yes</th>
<th>No</th>
<th>Don't know</th>
<th>Did not use the online links</th>
</tr>
</thead>
<tbody>
<tr>
<td>Looking up information in French</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Looking up words in French (using online dictionaries, online encyclopaedias, etc.)</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Checking grammar and/or spelling in French</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Revising for your weekly tasks and/or final essay</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reading (for example newspapers) in French</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Watching TV/ video files in French</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Listening to radio stations in French</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Surfing around French language sites looking at different things</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

In general, it appears that the majority of students agreed with the teacher-researcher's perception of affordances offered by the online links. It is interesting to analyse more closely the comments accompanying the responses of students who selected “did not use the online links”. One student wrote:

*I did not use this for the activities I think. I was away when we first discussed the written argumentation due to injury and then most materials were provided in class.*
Another respondent who stated not using the selected online links for looking up words in French, justified his/her opinion in the following way: *I use Altavista babelfish – personal preference*. These responses indicate the following situations: (1) there was at least one student who did not use the provided tools at all, and (2) some students repeated the same behaviour as their colleagues in the previous year and used a tool not recommended by the teacher-researcher. In addressing the second situation, it is important to remind the reader that, in the first week of classes, the teacher-researcher presented the selected dictionary to students and completed an activity instructing students how to use the resource. Nevertheless, some students still reported using neither the dictionary nor other online links. In previous sections (on Blackboard and Wiki) we described in detail the ways in which the model of affordance functions. Interpreted through this lens, the fact that not all affordances of the tool were taken up suggests that, influenced by this particular functional context, these students’ frames of reference impacted on their perception of affordances and prevented some affordances from being taken up. More precisely, the 2007 responses indicated that the students appreciated certain characteristics of the online links and that they liked to use them in a particular way e.g. easily. These preliminary conclusions also suggested that the students were aware of the potential for an action offered by a specific tool (i.e. Lexilogos), however they did not take it up in its entirety. The analysis of the 2008 data confirms these conclusions. The above-quoted response about the use of *Altavista babelfish* fits with the trend observed in 2007 that some students privileged familiarity with a tool and turned towards the resource which provided them with answers quickly and efficiently. This allows the conclusion that in the case of the student preferring *Altavista babelfish* probably his/her frame of reference – successfully completing the course, having positive attitudes towards a familiar tool etc. (for the full list of constituents see Table 22 below) – influenced the decision not to take up the affordance of developing language skills while using Lexilogos. As for the student who admitted not using the online links at all, it can be suggested that this student’s frame of reference was affected by missing the first part of the semester when the presentation of the online links took place. As a result, the student did not perceive the affordances of enhancing linguistic skills, and the stimulus provided by the functional context in form of completing the tasks was not strong enough to motivate him/her to take up the affordances. It can be inferred from the student’s comment quoted at the beginning of the paragraph that s/he used materials provided in class as a help in completing the activities, which in the student’s opinion was sufficient to satisfy the requirements of the unit and meant that s/he did not take the opportunity to further develop his/her linguistic competences.

The list of affordances presented above was followed by two open-ended questions: *Did you*
learn something new about the ways of using the online links in this semester? and In your opinion, what are other ways of using online links for learning? Similarly to the respondents to the 2007 questionnaire, students appreciated the accessibility of these resources. None of the respondents suggested other possible uses of these tools.

However, during the focus group session, in response to the teacher-researcher’s question: [...] can you tell me, what did you learn while using the online links? one student referred to intercultural learning as an interesting experience offered by the tool:

**Participant 2:** I just liked learning the cultural differences between the news of Australian news and news overseas and also the different types of shows because you have got shows where, you know there is all those arguments, debates, whereas over here you hardly have any of them. That’s probably due to our laid back nature, that is probably why everyone considers Australians as we are sitting on the fence, because we don’t have those sort of things that push us to say OK, this is what I think, this is why I think that and this is what I stand for, so to speak. So it was really good to see that other side, what happens overseas and the type of news that they present.

Intercultural learning was not included on the list of affordances provided to students in the questionnaire and by making reference to it this student indicated that students’ and teacher-researcher’s perceptions of affordances did not always correspond.

To understand this difference, once again the model of affordance is applied. The table below (Table 22) presents the comparison of affordances offered by online links, as perceived by the teacher-researcher and students. This summary of perceived affordances was completed by the teacher-researcher at the end of the project:

### Table 22

*Online links and the model of affordance: Teacher-researcher’s comparison of the teacher-researcher’s and students’ perspectives*

<table>
<thead>
<tr>
<th>Teacher-researcher Frame of reference:</th>
<th>Students Frame of reference:</th>
</tr>
</thead>
<tbody>
<tr>
<td>French course taught at the university, including learning objectives and curriculum requirements; professional identity as a lecturer responsible for the unit, this embraces setting up learning outcomes suitable for students’</td>
<td>French course studied at the university, identity as a French language learner, this includes willingness to improve language skills and competencies associated with the fact of speaking a foreign language (e.g. intercultural)</td>
</tr>
</tbody>
</table>
level and conforming with the curriculum; selecting an appropriate pedagogy, designing the content of learning and teaching activities suitable for the selected ICT tool (in this case, tasks using up-to-date authentic materials and online resources); identity as a researcher interested in the application of ICT tools for teaching and learning; identity as a moderately skilful user of ICTs capable of employing ICT tools provided by the university for learning and teaching; identity as an ICT user with particular attitudes towards new technologies; identity as an individual, including some of her personal attributes.

**Functional context:**
Using the online links for teaching and learning purposes, which includes: selecting appropriate online resources, putting online links on Blackboard site, developing tasks for learners to complete, providing online resources for all learners involved in the unit, instructing students on the variety, nature and the potential of the chosen online links, encouraging students during the face-to-face contact hours to use online links selected by the teacher-researcher; physical facilities provided by the University (e.g. classrooms, computers, etc.).

**Affordances:**
Satisfying the teacher-researcher's needs to provide an appropriate tool for conducting scheduled learning activities and tasks, to enhance students' language skills by: looking up information and words in French (using online dictionaries, online encyclopaedias, etc.); checking grammar and/or spelling in French; revising for weekly tasks and/or final essay; reading newspapers in French; watching TV/video documents in French; listening to radio stations in French; surfing around French-language sites.

**Functional context:**
Using the online links for learning purposes, which involves: completing scheduled tasks, consulting recommended sites to find information or correct linguistic form, using online links after face-to-face sessions for learning; physical facilities provided by the University (e.g. classrooms, computers, etc.).

**Affordances:**
Quickly checking the meaning of a word, or its spelling; quickly finding required information (e.g. a translation or a definition of a word); enhancing written comprehension by reading reliable French newspaper sites; enhancing oral comprehension by listening to the recommended French radio stations and television sites; improving intercultural skills by staying in touch with French news.
This application of the model of affordance suggests that, through the design of learning activities, the functional context created by the teacher-researcher strongly encouraged the development of students’ linguistic skills. Furthermore it appears that this particular type of task motivated some students to perceive the possibility of enhancing their intercultural competence. The desire to enhance this competence was embedded in some students’ frames of reference (as shown in Table 22 above) and its development became a salient affordance for them. Since the opportunity for developing intercultural skills has already been cited as an affordance of Blackboard and Wiki, it can be concluded that, in the case of the online links, the teacher-researcher focused on the potential of the tool to satisfactorily provide students with appropriate instruments for completing scheduled tasks and enhancing their language skills (i.e. oral and written comprehension). The online links, a non-collaborative ICT, appeared to be highly suitable for this purpose and, hence, the learning activities involving the use of online links gave priority to the development of language skills over intercultural ones. On the other hand, the willingness to improve competencies associated with speaking a foreign language (e.g. intercultural competence) was apparently embedded in the student’s frame of reference. It can be concluded that the student’s frame of reference enabled her perception of this affordance, and the functional context created favourable conditions for its uptake.

While reflecting on the findings from the survey and preparing in-depth questions for the focus group discussion, the teacher-researcher made the decision to include two additional affordances – researching in French and self-directed learning. These affordances were not a part of the questionnaire and were perceived only after the preliminary analysis of students’ responses. The two quotations below present the reactions of focus group participants to the suggestion of the affordance of researching in French:

**Researcher:** And then we continue with online links, researching in French and self-directed learning in French. Would you agree with me that you didn’t spot these affordances?

**Participant 2:** I think the online links they gave us the means to then have a look at the information there and then further look for other information.

**Researcher:** So you did learn how to research in French?

**Participant 2:** Yes, because of the limited knowledge of which French search engines, we didn't have too many, too much knowledge at that time.
This example shows, once again, that perception of affordances is dynamic and alters accordingly to changes in, both frame of reference and functional context. More specifically, in the example provided above, the teacher-researcher’s frame of reference was reduced from that of the dual roles of a lecturer responsible for preparing the unit and of a researcher interested in the application of new technologies in teaching and learning, to the latter, which was dominant at that stage of the research. Therefore, the functional context changed from delivering the unit and conducting the research to continuing the research by completing an initial analysis of the survey, drawing preliminary conclusions and designing questions to be asked during the focus group. Such actions provoked reflection and triggered the perception of new affordances.

It seems that the students’ frame of reference also changed during the focus group activity, from that of being students completing HHB066 to that of research participants reflecting on the questionnaire and affordances of the ICT tools, as suggested by the teacher-researcher. The functional context became the focus group activity, with questions asked explicitly about the specific affordances. This allowed the students to see further affordances and to comment on their potential.

These observations regarding the ways in which affordances are perceived and taken up could be valuable for all educators applying ICT tools in their practice. While designing an activity which uses an ICT tool, educators should not only focus on the pedagogical objective of the activity or task, but also be prepared for the eventuality that the frame of reference or situational context might change, with the result that perceptions of the potential for use and the way of using the ICT tool will change as well. In other words, while educators need to closely align activities and tasks with the pedagogical objectives of their units, they should be prepared for unforeseen circumstances, which could be interpreted as unexpected opportunities providing further affordances, not previously identified. The second observation concerns the role of learners who should be considered active participants in the learning and teaching process. As shown in the example of intercultural learning, learners were capable of identifying the potential for an action of various ICT tools, which had not been perceived by their instructor. This could be explained in terms of their specific frame of reference and functional context, influencing the perception of opportunities for an action from their particular perspective. Their voices should be taken into consideration by educators preparing teaching and learning activities with the use of ICT tools.


4.4 Summary

This chapter presented a detailed analysis of the research data collected over a period of three years, from 2006 to 2008. The analysis focused on three ICT tools, namely Blackboard, Wiki and online links and the justification for this selection is outlined earlier in this chapter. In response to the prompt questions accompanying the main research questions, the analysis of each ICT tool followed the same pattern. That is, after a brief description of the particular tool from the point of view of affordances offered by it, as identified by the teacher-researcher, the next section discussed the application of the tool and was followed by the analysis of student data. Each section ended with preliminary conclusions which clearly indicated the importance of study of the educational/learning environment for the learning and teaching process.

The teacher-researcher explored the model of affordance as a lens through which the collected data were interpreted. According to the model, the frame of reference influences the perception of the potential affordances offered by the environment and the functional context, by encouraging the action, encourages their uptake.

While the findings of the analysis will be discussed in detail in the concluding chapter, the overall results of the research are summarised below.

1) Frame of reference

When taking a closer look at the two categories of social agents participating in the learning and teaching process, the teacher-researcher established two patterns of observable characteristics as part of their frames of reference. The comparison of their constituents, conducted across the three consecutive sections of this chapter, showed important differences in the composition of the frames of reference of those social agents (see tables presenting the differences in perceived affordances in this chapter). While investigating the influence that the frame of reference exercises over the perception of affordances, the research also provides examples of situations where the opportunities for an action were either not perceived or perceived but not taken up. For instance, in the case of the online links (the Lexilogos dictionary), it was concluded that the students’ frames of reference prevented them from taking up some affordances, which, to the teacher-researcher, seemed salient.

All of the above points to the conclusion that educators should be encouraged to conduct an investigation of both their individual and their students’ frames of reference.

2) Functional context

The findings of this project stress the role of catalyst that the functional context plays in the process of perceiving and taking up, or not taking up, affordances. The research provides examples of the relationship between the frame of reference and the functional context. For instance, the choice of a
particular pedagogical approach depended on the teacher-researcher’s frame of reference which included her identity as a lecturer responsible for selecting an appropriate pedagogy. The decision to use the chosen pedagogy entailed the design and development of learning activities and thus created the specific functional context for the students. From the teacher-researcher’s perspective the functional context should facilitate the perception and uptake of affordances. On the other hand, the analysis shows that students had their own functional contexts (see tables comparing the affordances perceived by the teacher-researcher and students, specifically the sections on functional context), which overlapped to some extent with the teacher-researcher’s, the discrepancy resulting from the different roles each social agent played within the learning environment.

It can be concluded that the functional context – a vehicle responsible for encouraging the uptake of affordances – was set up in a predetermined way and according to the frame of reference of the dominant social agent, i.e. teacher-researcher. This finding implies that educators should be aware of this influence and, when selecting their pedagogical approach, choosing ICT tools, designing content and developing activities, they should adopt a student-centred perspective and keep in mind that the discrepancies between functional contexts impact on the ways in which the activities will be performed by students.

3) Affordances

The research also presented various scenarios of taking up/ not taking up affordances. In particular, the majority of affordances identified by the teacher-researcher were also perceived and taken up by the students. However, in certain instances (e.g. the Lexilogos dictionary) the affordances initially identified by the teacher-researcher were perceived by students but not taken up. The analysis also provides examples of affordances not perceived by the teacher-researcher but identified by students (e.g. development of relationship-building skills). Finally, during the focus group the teacher-researcher discussed with students affordances not initially identified by her and which she identified after the end of the teaching period (e.g. researching in French). All these scenarios provide concrete examples of differences in the perceptions of affordances and in this manner strengthen the call for an investigation of the frames of reference of both students and teachers.

The research shows the complexity of what often seems to be seen as a simple action of using a tool. The study of interdependencies between the constituents of the model of affordance provides an insight into the ways the decision to use/not use a tool is taken. Within a particular educational/learning environment, opportunities for an action are created. They can be perceived or not by social agents, and this depends on their frames of reference. On the other hand, the functional context provides concrete examples of applications of already-identified affordances and triggers
actions, i.e. enables the opportunities to be taken up/ not taken up. The decision to take them up or not rests with social agents and their willingness to use the tool in the way suggested by the affordance. The actions taken up, in their turn, provide experiences which change the individual’s frame of reference and are necessary for identification of further affordances.
5.0 Conclusion

This thesis responds to the need for further research in the field of Computer-Assisted Language Learning (CALL) and, in particular, the dearth of in-depth studies on the integration of ICTs into the Second/Foreign Language curriculum. Ecological Linguistics and the study of complex, socially-organised activities provide the theoretical backbone for the thesis: more specifically, the ways in which learners use the ICT tools integrated in a language course have been analysed through the notion of affordance, a key concept in Ecological Psychology (Gibson, 1979; Good, 2007; Reed, 1996), Ecological Linguistics (Greeno, 1994; Leather & van Dam, 2003; van Lier 2000, 2003, 2004a, 2004b), and the study of complex, socially-organised activities (Bateson, 1979; Bronfenbrenner, 1979, 1993; Kirschner, 2002). This research has investigated the relationships between the affordances offered by ICTs, the social agents (teacher-researcher and students) and the teaching and learning environment of a French course at university level.

The argument for the need for the investigation of particular educational environments is fully addressed in Literature Review, using, notably, Bax’s (2003) argument for the importance of anchoring research in the context of “individual environments” (Bax 2003, p. 27), as has been the case of this research project investigating a specific French course, HHB066. A detailed description of this environment is provided in Research Methodology, section 3.3. In the context of this research project, the educational/learning environment encompasses the French language unit offered at the University, including its learning objectives, academic requirements, pedagogical approach, teaching methodology, content, scheduled tasks for completion, and also the ICT tools provided by the University and the multiple identities of the social agents involved in the unit. This definition largely overlaps with the descriptions of the frame of reference and functional context, two constituents of the model of affordance that, with time, became the theoretical lens through which the data were analysed.

To reach this point (i.e. the point described at the end of the previous paragraph) the project evolved from an investigation of students’ attitudes towards ICTs used within their educational environment for learning purposes. At this early stage, the guiding research question was: \textit{what are the learners’ attitudes towards the ICT tools used in the project?} The data analysis indicates that most learners showed a consistently positive attitude towards the ICTs used. In their comments, students described the three ICTs studied as “useful, enjoyable, user-friendly and accessible” (for more details, see Chapter 4). These positive responses can be attributed to factors which varied from one instrument to another. For instance, Blackboard was seen as an excellent ICT system for
its capacity to be a vehicle for providing comprehensive teaching and learning resources that could be used extensively by learners, both during contact hours and outside the classroom. The Wiki software was appreciated for its potential to improve students’ linguistic skills by providing them with a highly collaborative writing tool. This factor was made salient by the learning and teaching activities developed by the teacher-researcher who frequently required students to employ this ICT tool in order to collaborate with their classmates and their French-speaking peers. Finally, the online links allowed students to use easily-accessible, practical and reliable learning resources whenever the need for such an expedient arose. The students’ use of online links was stimulated by weekly tasks created by the teacher-researcher to be completed by students prior to attending class. Overall, the data suggest that students’ positive attitudes coincided with their opinion that the selected ICTs responded appropriately to their learning needs by offering the potential for completing the scheduled tasks and developing their linguistic skills further.

This observation attracted the teacher-researcher’s attention to the relationship between students’ attitudes, the technological artefacts used in the unit and the learning environment within which the interaction between these components took place. In order to unveil the complexity of these relationships, the teacher-researcher has drawn upon the model of affordance as developed by Good (2007). The Literature Review discusses this concept in detail, however, it may be helpful to reiterate that, from Good's perspective, an affordance is a unit of analysis that should be seen as being “nested” (Good 2007, p. 277) within the broader concept of the functional context which, in turn, is included in a yet broader concept – the frame of reference. The research questions, then, were formulated to closely examine the interplay between the constituents of the model of affordance and their impact on students’ learning:

1) What are the learners’ attitudes towards the ICT tools used in the project?

2) What are the affordances offered by ICTs used in a specific French language course at university level from the perspective of the teacher and from the perspective of language learners?

3) What affordances offered by ICT tools used by the teacher within the specific teaching and learning environment have been taken up by learners?

4) What factors influence the uptake by learners of the affordances created by ICT tools used by the teacher within the specific teaching and learning environment?

The model of affordance points to the interdependence between the functional context within which a technological artefact is used and the frames of reference of social agents employing
the tool as a factor impacting on the ways the potential of the ICT is fulfilled. This close relationship between the learner and the educational context is a central interest of Ecological Linguistics. From this standpoint, the human-environment relationship has a reciprocal character, that is, neither element can be seen in isolation, but both should be understood as parts of one entity forged “from the flow of purposive activity in the world” Good (2007, p. 269). As noted in the Literature Review, the ecological perspective on the process of acquiring knowledge holds that the environment shapes the learner’s knowledge as much as the learner shapes his/her setting. The data gathered and analysed in this research project confirm that viewpoint. By including a technological artefact in the educational situation, an opportunity for an action is created and the learner is given the choice between acting and using the potential of the tool or not taking up this opportunity. This means that on one hand the environment shapes the student’s knowledge by providing the technological artefacts which offer the potential of facilitating learning, and on the other hand the student makes the decision of embracing or rejecting the artefacts’ potentials and in this way shapes his/her environment.

It is important to note that pedagogical considerations always remained at the centre of any decision-making regarding the choice of tool, the ways in which the ICT was used in the unit and the organisation of the learning and teaching environment. Interpreted through the lens of the model of affordance, it can be concluded that the teacher-researcher's frame of reference impacted on the selection of the pedagogical approach, influenced the development of the unit content and determined the ICT tools to be used. In consequence, the affordances for learning offered by a particular ICT tool were identified and assessed for their potential to be taken up by learners. This assessment constituted the basis for creating a functional context that encouraged their uptake.

The data analysis pointed to the role the students’ frames of reference played in the process of learning and teaching. More specifically, the analysis of the three constituents of the model of affordance seen from the perspective of the teacher-researcher indicated that attitudes towards ICTs are an inherent part of students’ frames of reference and are closely related to their identities. That is, as discussed in the Data Analysis, the students’ frame of reference of being French language learners enrolled in a university-level course strongly impacted on the ways in which the opportunities for an action, for instance learning, offered by ICTs were perceived. An example of the importance of the students' frame of reference and its impact on their actions was presented in the discussion of the ways in which the Wiki was used by students. In the 2007 questionnaire some students pointed to the difficulties in using a Wiki for writing an online text in French. The analysis of students' responses indicated that their frame of reference discouraged them from using the Wiki
while producing a written contribution in French: this was due to their desire to receive good marks for the piece of assessment where linguistic accuracy was one of the assessment criteria. For this reason some students reported completing this assignment using alternative editing tools (Microsoft Word) with which they were familiar and which provided assistance with linguistic accuracy. Therefore they chose to write text using Word and to copy the finished text into the Wiki (as per the unit requirement of submitting the text using the Wiki).

As the data analysis has also shown, in most cases the teacher-researcher's perception of the affordances offered by the ICT tools coincided with the learners' perceptions, and the possibility for action was taken up by the latter. Nevertheless, there were some instances when discrepancies between the expected and actual uptake of affordances were noted, as illustrated by the example of the way in which the affordances offered by Lexilogos, a French online dictionary, were perceived by students but not taken up to the extent expected by the teacher-researcher. This was explained by differences between the frames of reference of the social agents, the teacher-researcher and the students. It was concluded that the students’ frame of reference of being French language learners, accustomed to the use of a familiar tool and eager to complete assigned tasks in a particular way (quickly, efficiently) impacted on the decision not to take up the affordances offered by Lexilogos (e.g. developing vocabulary, acquiring knowledge through using a comprehensive, monolingual dictionary).

It can be concluded that prior to deciding on a particular ICT tool, educators should analyse it for its potential to enhance the particular skills they want their students to develop and then apply it in such a way that this potential is made salient to all users, taken up and utilised in the desired way. The analysis should also take into consideration the learners' frames of reference as important elements conditioning the successful integration of the tool. Certainly, such a task is not easy, especially with large cohorts of students. However, at the end of each semester, in most tertiary institutions a standard evaluation of the unit is offered to students and this could be an opportunity for educators to include a set of questions investigating those elements of students’ frames of reference that seem the most important from the perspective of the uptake of affordances. Alternatively, a survey prepared by the lecturer could be administered to the students, with an explanation of its purpose. Finally, universities should also be prompted to develop a set of tools assisting academics to find out vital information about their students’ frames of reference.

It has been stressed above that pedagogical considerations always remained at the centre of this research project. This focus on pedagogy meant that the latter determined the application of ICT tools. Therefore it can be concluded that this approach to decision-making regarding the
integration of ICT tools is teacher-centred and promoted the teacher's over the learners' frames of reference. The results of the research point to some positive aspects of privileging the teacher's frame of reference in pedagogical and methodological decision-making. These advantages lie in the fact that the learning setting, established from the perspective of the teacher's frame of reference, aimed to create the best conditions to promote the students' acquisition of knowledge and enhance their learning experiences. The teacher-researcher had both the knowledge and the experience to shape (to some extent) the educational environment in ways that would assist students in achieving unit objectives (also established by the teacher-researcher and aligned with University requirements). Each phase of the process was carefully thought through: establishing the unit objectives, selecting the pedagogical approach, designing the activities, developing the content to be delivered, searching for appropriate resources online, organising the structure of the Blackboard site, uploading the resources to the Blackboard site, etc. The students' positive reactions confirmed the value of this approach. As we have seen, the data analysis provided evidence that, in the majority of cases, students had positive attitudes towards the selected ICTs and agreed with the teacher-researcher's perception of affordances which they took up. Although very time-consuming for the teacher, one of the greatest advantages of this approach was that of increasing the value of students' learning experiences. More precisely, students were provided with reliable and easily-accessible resources with which to practise their language skills. The data analysis also showed that students not only appreciated such a well organised, technology-enriched pedagogical approach, they also reflected on its advantages, learnt from it, perceived the opportunities for an action offered outside the unit and took up these affordances to use them for their benefit in a different situation. For instance, during the focus group activity, one student commented:

**Participant 2:** *I am not too sure about everyone else, but if I was having trouble with a certain tense, I would go and look and try to find these little games where you can type it in and I would just sit there if not, like for ten minutes or so and just play on the game and just make sure that I get it, and afterwards just test myself by writing that down and double checking.*

In her reflection, the student referred to online language games, a type of resource which was not provided by the teacher-researcher for this unit. It can be concluded that, stimulated by the ways the teacher-researcher used the ICTs in the unit, the student perceived the potential of the Internet, took the leading role in searching for appropriate resources and used them as a self-study activity to improve her language skills.
However, teachers should be aware of the fact that not all elements of the learning and teaching environment can be determined or controlled and the dominance of their frame of reference over the pedagogical and methodological decisions has its limitations: they do not hold the reins of all aspects of the educational process. More specifically, although the teacher has quite a significant control over the educational/learning environment in the sense that s/he can shape the functional context to a certain level, his/her control over the learners' frames of reference is limited. This research project has demonstrated that, despite discrepancies between the frames of reference of the teacher-researcher and learners, within a particular educational/learning environment, many affordances were salient for both, perceived and taken up, as the teacher-researcher expected. Nevertheless, the research has also shown that educators should anticipate that differences between the frames of reference of both types of social agents will impact on the ways in which opportunities for an action are perceived and in consequence will discourage certain affordances from being identified and taken up. This may result in unexpected learner behaviour, as was the case for the Wiki not being used for editing the text for reasons of linguistic accuracy. Educators interested in the integration of new technological artefacts into learning and teaching should be prepared for such discrepancies, investigate their nature and ask themselves the question of how to how to manage them. While designing and developing learning activities, they should be aware that student use of the resources will not always follow their plan. Some resources will not be (fully) used, as was the case with Lexilogos and some will be used in a different way than that which was intended (e.g. Wiki – editing function). Finally, learners may also include new resources, not selected by educators, into their repertoire of ICT tools (e.g. Wordreference, online language games). For this reason, once again research into students' frames of reference can provide teachers with valuable information to assist them when making decisions which impact on the overall achievement of the learning objectives.

The model of affordance applied in this research project presents the frame of reference embedding the functional context within it. The Literature Review explains the relationship between these two constituents of the model and the Data Analysis provides examples of how the functional context allows an action to be taken and impacts in this way on the frame of reference, which enables the perception of affordances and influences the decision to take/ not to take them up. With changes in the functional context, i.e. the circumstances in which the use of the tool is embedded, the perception of affordances changes, new potentials for an action may be identified and taken up/ not taken up. The act of taking/ not taking up the affordance provides a social agent with an experience and this influences the frame of reference (which may change under the
The influence of these new experiences. For instance, with a change in the functional context, after the completion of the unit, while the teacher-researcher was preparing questions for the focus group, the affordance of developing technological skills through the use of tools such as Wiki Confluence, which is widely used in major companies, became apparent and she included this affordance on the list for discussion with focus group participants. It can be concluded that after the end of the semester, the teacher-researcher reflected more broadly on the affordances of the ICTs used, which gave her a different perspective and allowed identification of new affordances. Her frame of reference also changed and her identity as a researcher prevailed over that of teacher. Most probably, when designing and developing the content of the unit, the teacher-researcher did identify the opportunity for developing technological skills, however, the development of these skills was not a part of the unit’s learning objectives. For this reason, even if the particular functional context of the unit created favourable conditions to perceive the development of technological skills, the teacher-researcher’s frame of reference did not allow her to associate these skills with the professional settings, outside the educational environment. The functional context at that time related to the operational aspects of managing the unit, whereas after the end of the semester, the functional context was that of continuing the project by conducting a focus group. This created an opportunity for the researcher to analyse the affordances of ICTs from a different angle and resulted in the perception of new affordances.

A similar finding relates to the change in students’ frame of reference under the new circumstances. After the end of the semester it is possible that the students’ identities as focus group research participants became more dominant. During the activity, research participants agreed with the teacher-researcher’s suggestion that using the Wiki software enhanced students' ICT skills. While reflecting further, they also agreed with the teacher-researcher that the development of these skills could be transferred to other settings, for example professional environments and that the knowledge of this particular software should be mentioned when applying for a position. Being familiar with Wiki Confluence and having some experience of using it for communication within an international context would be seen as an important professional competence. The perception of the potential of developing one's ICT skills needed a different perspective, more broadly related to the overall development of one's professional identity, which was made possible by the new functional context.

Considering all the above, the teacher-researcher suggests the following descriptors characterising the three constituents of the model of affordance:

1) Frame of reference – a set of features allowing the perception of affordances offered by the
surrounding environment and influencing the decision of taking/ not taking them up. For instance, within this project, the teacher-researcher’s frame of reference encompassed the French course taught at the university, including its learning objectives and curriculum requirements, pedagogical approach, teaching methodology, design of the unit content and tasks to complete, as well as parts of her personality alongside various identities. For example, within this project, these features included her professional identity as a lecturer responsible for the unit, identity as a researcher interested in the application of ICT tools for teaching and learning; identity as a moderately skilful user of ICTs capable of employing ICT tools provided by the university for learning and teaching; identity as an ICTs user with particular attitudes towards new technologies; identity as an individual, including some of her personal attributes. These features influenced the perception of the affordances and the decision of taking/ not taking them up. An individual’s frame of reference can be modified according to the surrounding environment, (changing) circumstances and under the influence of new experiences. He or she can be more or less aware of the frame of reference and can control to some extent the variations occurring within it (e.g. choosing to draw lessons from previous experiences). However, the frame of reference can also be modified without a social agent having control over the process (e.g. the University-imposed change of Learning Management System, from an in-house product Online Learning and Teaching to Blackboard).

2) Functional context – that part of the surrounding environment which includes particular circumstances and physical facilities. It is a catalyst for an action which facilitates the perception of affordances by the social agent and triggers their uptake. The functional context can provide examples of good practice, concrete examples of applications of already-identified affordances and in this way provoke the action of their uptake. For instance, within the current project, the teacher-researcher’s functional context encompassed a set of specific circumstances (i.e. the development of tasks, the setting up of an online collaboration with an overseas partner university, the organisation of the Blackboard site) and physical facilities provided by the University (e.g. classrooms, computers, etc.). The teacher-researcher controlled the functional context to some extent (e.g. by selecting ICTs, developing concrete tasks), and provided examples of affordances identified by her (e.g. explaining during the face-to-face sessions how to use selected technological artefacts). In this way, a favourable environment was created for students to take up affordances. The change in functional context (e.g. inclusion of a new technological artefact or modifying a
task) influence changes in one’s frame of reference and impacts on changes in the perception of affordances.

3) Affordance – an occasion to satisfy one’s needs, an opportunity for an action, which can be perceived or not, taken up or not. Its perception depends on a social agent’s frame of reference. However the action of taking it up is governed by and occurs within the functional context. Any modifications in the frame of reference and/or functional context influence the perception and the uptake of affordances. For instance, within this project the changes in the teacher’s frame of reference (shift from the dominance of the ‘teacher identity’ to that of the ‘researcher identity’) resulted in the perception of new affordances. However, the modification of the frame of reference was initiated by variations in functional context – the end of semester and the cessation of teaching.

Figure 13 represents the relationship between the three constituents of the model of affordance and the process of perceiving and taking up an affordance, as seen by the teacher-researcher: the frame of reference enables perception, the functional context triggers the action of taking up the affordance, and the affordance which is taken up becomes an experience influencing the frame of reference.

![Figure 13: The relationship between the three constituents of the model of affordance, as seen by the teacher-researcher.](image)

The model of affordance applied in this project allowed the teacher-researcher to present in a coherent way the results of her investigation of the integration of new technologies in learning and teaching. However, some limitations of the research’s scope, on one hand related to the human factor, i.e. the social agents using new technologies, and on the other to the ICTs, indicate
interesting opportunities for further investigation.

The first limitation of the project results from the fact that the research focused on only one of the four core elements of the language learning process, as seen from the perspective of Ecological Linguistics (van Lier, 2004b). Chapter 2.1.2 briefly discussed the following components: (1) affordances; (2) emergence; (3) the dynamics of social interaction; and (4) the quality of the educational experience. The necessary scoping of this project restrained its breadth and emphasised the model of affordance as the instrument through which the analysis of the collected data was completed. A research project conducted from the point of view of the remaining three elements would provide a complementary and complex insight into the interdependencies governing the process of language learning.

The second limitation relates to the fact that the project was conducted with students enrolled in a credit-bearing course at University, which strongly impacted on the functional context and all research participants’ frames of references. Research conducted with a cohort of students enrolled in a language course not rewarded by any form of credit or certification would make it possible to look at the perception and uptake of affordances from a different angle. What type of affordances would be identified by this type of student? What would be the impact of such a change in students’ frames of reference and functional context on the perception and uptake of opportunities for action?

Another restriction on the project has to do with the class size. The number of students enrolled in the unit varied from 14 (in 2006 and 2008) to 26 (in 2007). However it has been demonstrated that the constituents of the educational environment have a strong influence on the functional context, which affects the frame of reference. How would an increase in cohort size influence the social agents’ frames of reference? What changes in functional context would occur? What affordances would be offered, perceived and taken up within such an environment?

The next limitation of the research relates to the language proficiency of the research participants. Although there was some variation within the group, overall participants could be said to have reached a B1-B2 level of proficiency, as described in the Common European Framework of Reference for Languages (Council of Europe, 2001). It could be interesting to investigate further ways of integrating ICT tools at different levels of linguistic proficiency, starting from the A1 level (i.e. beginners).

The fifth restriction results from the fact that the research was conducted by only one teacher-researcher whose frame of reference strongly impacted on the ways the project was conducted. Since this research project has shown the importance of the frame of reference and
functional context of all social agents taking part in the learning and teaching process, it is recommended that other educators conduct similar research, to compare the results and check the validity of the conclusions presented in this thesis.

The last limitation relates to the type of technological artefacts analysed in this project which only studied the affordances offered by three ICTs. Each year, new and more sophisticated technologies enter classrooms opening new possibilities and changing the learning and teaching environment. The investigation of their potential for enhancing the acquisition of knowledge should be a priority for every teacher, researcher and educational institution.

This masters’ project, the result of a careful analysis of an educational/learning environment, sheds some light on the process of taking up or turning down the opportunity to use the potential offered by technological artefacts embedded in the curriculum. The final conclusions, building on the project’s findings, clearly indicate the need for further investigations and suggest possible research directions and pathways.
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Appendices

Appendix A

2006 Questionnaire

Part I. General information:

1. Age:
   - 17 - 20
   - 20 - 25
   - 30 – 35

2. When did you start learning French?
   - At primary level
   - At secondary level
   - At tertiary level

3. For how long have you been studying French?
   - 2 years
   - 3 years
   - 5 years
   - 6 years
   - 7 years
   - 8 years
   - 12 years

4. Have you been studying French continuously?
   - Yes
   - No

5. If your answer is no, please specify:
   - Break of:
     - 1 year
     - 2-3 years
     - 4-5 years
     - More than 5 years

6. Do you have a computer (desktop, laptop) at home?
   - Yes
   - No
7. Do you have Internet access at home?
   Yes
   No

8. How often do you use a computer for educational purposes?
   (any educational purposes, i.e. reading newspaper article, checking bibliography, 
   researching for information, other…)
   - Every day
   - Three times a week
   - Twice a week
   - Once a week
   - Once or twice a fortnight
   - Once or twice in three weeks
   - Other, please specify

9. How would you describe your IT skills? You feel:
   (including using new software, surfing on the Internet, learning new programs, etc.)
   - Very comfortable
   - Comfortable
   - Neither comfortable nor uncomfortable
   - Uncomfortable
   - Very uncomfortable

10. Overall, you like using computers in everyday activities:
    - Strongly disagree
    - Moderately disagree
    - Agree and disagree equally
    - Moderately agree
    - Strongly agree

11. The exchange with New Caledonian students via Internet was an efficient tool for enhancing 
    language learning:
    - Strongly disagree
    - Moderately disagree
    - Agree and disagree equally
    - Moderately agree
    - Strongly agree
12. Overall, you like using an Internet tools for studying purposes:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
   Moderately agree
   Strongly agree

Please provide comments:
__________________________________________________________________
__________________________________________________________________

Part II. Features allowing an asynchronous on-line collaboration:

13. Are you familiar with the concept of collaborative learning (traditional mode, on-line mode)? You are:
   Familiar
   Neither familiar nor unfamiliar
   Unfamiliar
   Very unfamiliar

14. Before taking French 6 unit you had already participated in an “asynchronous on-line collaboration” (Discussion Forum, Wikis, e-mail exchange)?
   Yes
   Do not know
   No

Please provide comments:
__________________________________________________________________
__________________________________________________________________

15. You like receiving feedback from peers when completing asynchronous on-line collaboration:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
16. An asynchronous on-line collaboration is an effective means of promoting learning writing skills in French:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
   Moderately agree
   Strongly agree

Please give reasons:

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

17. This question investigates the effects on the development of your writing skills of receiving feedback from overseas peer student(s) using an asynchronous feature.
Did you take into consideration feedback from your overseas peer student(s) when completing the different stages of the collaboration using Wikis?
   Yes
   Do not know
   No

18. Please describe briefly the elements which you considered important in your peer’s feedback (if you did not consider your peer’s feedback important, please explain why):

__________________________________________________________________
__________________________________________________________________

19. Feedback which you received from your overseas peer student(s) had an impact on your writing skills in French:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
   Moderately agree
   Strongly agree
20. **This question investigates the effects on the development of your writing skills in French of providing feedback on others’ writing.**

Providing feedback on Wikis to other students (both overseas and/or enrolled in this unit) can help with your own development of writing skills in French:

- Strongly disagree
- Moderately disagree
- Agree and disagree equally
- Moderately agree
- Strongly agree

Please give reasons:

__________________________________________________________________
__________________________________________________________________

21. **Overall, an asynchronous collaborative learning using Wikis had an impact on your writing skills in French:**

- Strongly disagree
- Moderately disagree
- Agree and disagree equally
- Moderately agree
- Strongly agree

Please give reasons:

__________________________________________________________________
__________________________________________________________________

22. If in the previous question your answer was in the range “Agree and disagree equally” to “Strongly agree”, please describe the nature of this impact:

Please give reasons:

__________________________________________________________________
__________________________________________________________________

23. When giving the opportunity, would you rather write on:

- Paper
- Wikis
24. Please comment on any aspect of Wikis you consider important:

__________________________________________________________________
__________________________________________________________________

Part III. Features allowing synchronous on-line collaboration

25. Before taking French 6 unit you had already participated in a “synchronous on-line collaboration” (real-time chat room)?
   Yes
   Do not know
   No

Please provide comments:
__________________________________________________________________
__________________________________________________________________

26. You like using synchronous on-line collaborative features while learning French:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
   Moderately agree
   Strongly agree

Please give reasons:
__________________________________________________________________
__________________________________________________________________

27. The two synchronous exchanges with your overseas peers using the chat room were effective for development of your writing skills in French:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
   Moderately agree
   Strongly agree

Please give reasons:
__________________________________________________________________
__________________________________________________________________
28. This question investigates the effects on the development of your writing skills of receiving feedback from overseas peer student(s) using synchronous features.

Did you take into consideration peer feedback via chat room when completing the different stages of the collaboration?

Yes
Do not know
No

29. Please, describe briefly the elements which you considered important in your peer’s feedback (if you did not consider your peer’s feedback important, please explain why):

Please give reasons:
__________________________________________________________________
__________________________________________________________________

30. Feedback which you received from your overseas peer student(s) had an impact on your writing skills in French:

Strongly disagree
Moderately disagree
Agree and disagree equally
Moderately agree
Strongly agree

Please give reasons:
__________________________________________________________________
__________________________________________________________________

31. This question investigates the effects on the development of your writing skills in French of providing feedback on others’ synchronous productions.

Providing feedback via chat room to other students (both overseas and/or enrolled in this unit) helped with your development of writing skills in French:

Strongly disagree
Moderately disagree
Agree and disagree equally
Moderately agree
Strongly agree

Please give reasons:
__________________________________________________________________
__________________________________________________________________
32. Overall, the synchronous collaborative learning using the chat rooms had an impact on your writing skills in French:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
   Moderately agree
   Strongly agree

33. If in the previous question your answer was in the range “Agree and disagree equally” to “Strongly agree”, please describe the nature of this impact:
   (positive/ negative; encouraging/ discouraging; other)

34. Please, comment on any aspect of the chat rooms you consider important:

35. Which mode of collaboration did you enjoy the most:
   Wikis
   Chat room
   None
   Please give reasons:

Part IV. Tasks planning:

36. The objective of on-line collaborative learning in this unit was:
   Very clear to me
   Clear to me
   Neither clear nor unclear to me
   Unclear to me
   Very unclear to me

37. The main objective of on-line collaborative learning in this unit was:
   Please finish the sentence:

__________________________________________________________________
__________________________________________________________________

__________________________________________________________________
__________________________________________________________________
38. The objectives of particular tasks were:
   Very clear to me
   Clear to me
   Neither clear nor unclear to me
   Unclear to me
   Very unclear to me

39. You understood the objective of the “commentaire d’un article”:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
   Moderately agree
   Strongly agree

Please finish the sentence:
The objective (of “commentaire d’un article”) was:
__________________________________________________________________
__________________________________________________________________

40. You understood the objective of the “commentaire sur le thème global du dossier”:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
   Moderately agree
   Strongly agree

Please finish the sentence:
The objective (of “commentaire sur le thème global du dossier”) was:
__________________________________________________________________
__________________________________________________________________

41. You understood the objective of the “analyse commentée”:
   Strongly disagree
   Moderately disagree
   Agree and disagree equally
   Moderately agree
   Strongly agree
Please finish the sentence:
The objective (of the “analyse commentée”) was:

__________________________________________________________________
__________________________________________________________________

42. The on-line collaboration was:
   Very well planned
   Well planned
   Neither well nor badly planned
   Badly planned
   Very badly planned

43. Please, comment of any aspect of task planning (within the context of on-line collaboration in this unit) you consider important:

__________________________________________________________________
__________________________________________________________________

__________________________________________________________________
Appendix B

2007 Questionnaire

Part I. General information:

Please read the following questions carefully and when necessary use a cross (x) to indicate the answers.

1. Age:

   17-20
   20-25
   25-30
   30-35 and over

2. Gender:

   Male   Female

Part II. Questions related to the use of Information Communication Technologies (ICT) tools.

Please read the following questions carefully and when necessary use a cross (x) to indicate the answers.

3. Do you have a computer (desktop, laptop) at home?

   Yes    No

4. Do you have Internet access at home?

   Yes    No

5. Do you have other communication devices?

   Mobile phone
   MP3 Player
   iPod
   BlackBerry
   iPhone
6. Do you use these devices for educational purposes?
(any educational purposes, i.e. reading newspaper article, checking bibliography, researching for information, other…)

Yes    No

Please give reasons for your opinion:

________________________________________________________________________

________________________________________________________________________

7. How often do you use a computer for educational purposes?
(any educational purposes, i.e. reading newspaper article, checking bibliography, researching for information, other…)

Every day
Three times a week
Twice a week
Once a week
Once or twice a fortnight
Once or twice in three weeks
Other, please specify

________________________________________________________________________

________________________________________________________________________

8. How would you describe your IT skills? You feel:
(including using new software, surfing on the Internet, learning new programs, etc.)

Very comfortable
Comfortable
Neither comfortable nor uncomfortable
Uncomfortable
Very uncomfortable

9. Do you think that using (ICT) tools within French 6 helped you to improve your IT skills?
Yes     No

Please give reasons for your opinion:

__________________________________________________________________________
__________________________________________________________________________

10. Overall, you like using Information Communication Technologies (ICT) for studying purposes:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Agree and disagree</th>
<th>Moderately agree equally</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

Part III. The delivery mode
Please read the following questions carefully and when necessary use a cross (x) to indicate the answers.

11. Outside French 6, do you use Blackboard in other units?

Yes     No

12. What is, in your opinion, the primary function of Blackboard?

Administrative tool (information about courses, dates, timetables)
Teaching tool (lecturer leaves information for students)
Learning tool (students are using BB to do some on-line activities)

13. For learning purposes, do you think that BB is:

Very useful
Useful
Neither useful nor distracting
Distracting
Very distracting

Please give reasons for your opinion:

__________________________________________________________________________
14. Which one of the ICT tools used in French 6 did you like the most:

- Blackboard
- Wikis
- Online links
- CD-ROM
- Power Point

Please give reasons for your opinion:

__________________________________________________________________________

15. How would you rate Blackboard for your learning needs:

- Very useful
- Useful
- Neither useful nor useless
- Useless
- Very useless

Please give reasons for your opinion:

__________________________________________________________________________

16. How would you rate Wikis for your learning needs:

- Very useful
- Useful
- Neither useful nor useless
- Useless
- Very useless

Please give reasons for your opinion:

__________________________________________________________________________
17. How would you rate Online links for your learning needs:

- Very useful
- Useful
- Neither useful nor useless
- Useless
- Very useless

Please give reasons for your opinion:

________________________________________________________________________
________________________________________________________________________

18. How would you rate CD-ROMs for your learning needs:

- Very useful
- Useful
- Neither useful nor useless
- Useless
- Very useless

Please give reasons for your opinion:

________________________________________________________________________
________________________________________________________________________

19. How would you rate Power Points for your learning needs:

- Very useful
- Useful
- Neither useful nor useless
- Useless
- Very useless

Please give reasons for your opinion:

________________________________________________________________________
________________________________________________________________________
20. Which one of the ICT tools not used in this semester would you like to see included into this the tools used in French 6 units in the future (for example : Podcasts, Blogs, video files, chat rooms, etc.)?

Please give reasons for your opinion:

__________________________________________________________________________
__________________________________________________________________________

21. Which one of delivery mode do you prefer?

Online (using Blackboard)
Combined face-to-face and online
Face-to-face

Please give reasons for your opinion:

__________________________________________________________________________
__________________________________________________________________________

22. Which delivery mode did you enjoy the most?

Online (using Blackboard)
Combined face-to-face and online
Face-to-face

Please give reasons for your opinion:

__________________________________________________________________________
__________________________________________________________________________

23. Within your French units, you would prefer:

More online activities
You do not want any change
Less online activities

24. What is your opinion about combined face-to-face and online mode of delivery (mode applied this semester)?
Part IV. Learning strategies

Please read the following questions carefully and when necessary use a cross (x) to indicate the answers.

25. While writing consecutive pieces of texts on the Wikis which tools did you use simultaneously (at the same time)?

Online French-French dictionaries
Online French-English-French dictionaries
Google
Web sites of French newspapers
Websites of French television
English thesaurus
None

26. While completing a task online, which form of dictionary do you use?

<table>
<thead>
<tr>
<th>Paper based dictionary</th>
<th>Both</th>
<th>Online dictionary</th>
</tr>
</thead>
</table>

Please give reasons for your opinion:

________________________________________________________________________
________________________________________________________________________

27. Did you receive feedback from your overseas peer on the Wiki?

Yes    Do not know    No

Please provide comments:

________________________________________________________________________

28. You like receiving feedback from overseas peer students when completing asynchronous online collaboration:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Agree and disagree equally</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

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34. Did you take into consideration feedback from your overseas peer student(s) when completing the different stages of the collaboration using Wiki?

Yes  Do not know  No

Please give reasons for your opinion:

__________________________________________________________________________
__________________________________________________________________________

29. Did you give your feedback on the Wiki to your colleagues enrolled in this unit?

Yes  No

36. When given the opportunity, would you rather write on:

Paper  Wiki

Please give reasons for your opinion:

__________________________________________________________________________
__________________________________________________________________________

Part V. Teaching approach
Please read the following questions carefully and when necessary use a cross (x) to indicate the answers.

30. In your opinion, the task-based online methodology (i.e. consecutive tasks scheduled to be completed online weekly) is an effective means of enhancing learning:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Agree and disagree equally</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

Please give reasons for your opinion:

__________________________________________________________________________
__________________________________________________________________________
31. What is, in your opinion, the role of the teacher within the context of a combined face-to-face and online language learning?

Please give reasons for your opinion:
__________________________________________________________________________
__________________________________________________________________________

Part VI. Unit content

Please read the following questions carefully and when necessary use a cross (x) to indicate the answers.

32. The delivery mode was appropriate for the content of the course (Argumentation written and oral taught using combined face-to-face and online method):

Strongly disagree  Moderately disagree  Agree and disagree equally  Moderately agree  Strongly agree

Please give reasons for your opinion:
__________________________________________________________________________
__________________________________________________________________________

33. The activities using ICT tools were well integrated into the course content:

Strongly disagree  Moderately disagree  Agree and disagree equally  Moderately agree  Strongly agree

Please give reasons for your opinion:
__________________________________________________________________________
__________________________________________________________________________

34. Please comment on any aspect of the course you consider important:
__________________________________________________________________________
__________________________________________________________________________
Appendix C

2008 Questionnaire

This questionnaire asks about your experiences with various Information Communication Technology (ICT) tools in the classroom.

Part I. Demographic data
1. Age:
   17-19
   20-24
   25 – 30
   30 – 35
   Over 35

Part II. The use of ICT tools in French 6
The following section asks you about a range of activities you may have engaged in which using various ICT tools. These questions refer to activities you have engaged in French 6.

2. Please rate, from 1 to 5 the usefulness for your learning of the following ICT tools:

   a. Blackboard

      | Not at all useful | moderately useful | very useful |
      | 1                | 2                 | 3           | 4           | 5

   b. Elluminate

      | Not at all useful | moderately useful | very useful |
      | 1                | 2                 | 3           | 4           | 5

   c. Wikis

      | Not at all useful | moderately useful | very useful |
      | 1                | 2                 | 3           | 4           | 5

   d. Online links provided on Blackboard

      | Not at all useful | moderately useful | very useful |
      | 1                | 2                 | 3           | 4           | 5
Please give reasons for your opinion:

_____________________________________________________________________________
_____________________________________________________________________________

3. **Blackboard**
   Here are some ways we used Blackboard. In your opinion, were they useful for your learning?

   a. Reading in French
   Yes □  No □  Do not know □  Did not use it with Blackboard □

   If you did not use Blackboard in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

   b. Looking up information about the unit in French
   Yes □  No □  Do not know □  Did not use it with Blackboard □

   If you did not use Blackboard in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

   c. Revising for weekly tasks/ final essay
   Yes □  No □  Do not know □  Did not use it with Blackboard □

   If you did not use Blackboard in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

2. Did you learn something new about Blackboard in this semester?
If yes, please explain:
_____________________________________________________________________________
_____________________________________________________________________________

3. In your opinion, are there other ways of using Blackboard for learning?
_____________________________________________________________________________
_____________________________________________________________________________
4. **Elluminate**

Here are some ways we used Elluminate. In your opinion, **were they useful for your learning?**

a. Communicating orally in French
Yes ☐   No ☐   Do not know ☐   Did not use it with Elluminate ☐

If you did not use Elluminate in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

b. Communicating in writing in French
Yes ☐   No ☐   Do not know ☐   Did not use it with Elluminate ☐

If you did not use Elluminate in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

c. Collaborating synchronously (that is, working online at the same time) with a New Caledonian peer
Yes ☐   No ☐   Do not know ☐   Did not use it with Elluminate ☐

If you did not use Elluminate in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

d. Using multiple websites simultaneously while collaborating with a New Caledonian peer
Yes ☐   No ☐   Do not know ☐   Did not use it with Elluminate ☐

If you did not use Elluminate in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

e. Creating intercultural links between you and the New Caledonian students
Yes ☐   No ☐   Do not know ☐   Did not use it with Elluminate ☐

If you did not use Elluminate in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________
f. Using some intercultural skills (to show respect to a representative of a different culture, to try to understand each other’s opinions, to negotiate with a representative of a different culture)

Yes ☐  No ☐  Do not know ☐  Did not use it with Elluminate ☐

If you did not use Elluminate in this way, please explain why:

_____________________________________________________________________________
_____________________________________________________________________________

5. Did you learn something new about software facilitating synchronous communication in this semester?
   If yes, please explain:

_____________________________________________________________________________
_____________________________________________________________________________

6. In your opinion, are there other ways of using Elluminate for learning?

_____________________________________________________________________________
_____________________________________________________________________________

7. Wikis.
   Here are some ways we used Wikis. In your opinion, were they useful for your learning?

   a. Communicating in writing in French with other, Australian members of your team

   Yes ☐  No ☐  Do not know ☐  Did not use it with Wikis ☐

   If you did not use Wikis in this way, please explain why:

_____________________________________________________________________________
_____________________________________________________________________________

   b. Writing in French

   Yes ☐  No ☐  Do not know ☐  Did not use it with Wikis ☐

   If you did not use Wikis in this way, please explain why:

_____________________________________________________________________________
_____________________________________________________________________________

   c. Communicating in French with New Caledonian peers

   Yes ☐  No ☐  Do not know ☐  Did not use it with Wikis ☐
If you did not use Wikis in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

d. Collaborating with the Australian members of your team
Yes □ No □ Do not know □ Did not use it with Wikis □

If you did not use Wikis in this way, please explain why:
_____________________________________________________________________________


e. Collaborating with New Caledonian peers
Yes □ No □ Do not know □ Did not use it with Wikis □

If you did not use Wikis in this way, please explain why:
_____________________________________________________________________________


f. Creating intercultural links between you and the New Caledonian peers
Yes □ No □ Do not know □ Did not use it with Wikis □

If you did not use Wikis in this way, please explain why:
_____________________________________________________________________________


g. Using some intercultural skills (to show respect to a representative of a different culture,
to try to understand each other’s opinions, to negotiate with a representative of a different

If you did not use Wikis in this way, please explain why:
_____________________________________________________________________________


4. Did you learn something new about Wikis in this semester?
If yes, please explain:
5. In your opinion, are there other ways of using Wikis for learning?

_____________________________________________________________________________
_____________________________________________________________________________

8. Online links

Here are some ways we used online links provided on Blackboard. In your opinion, were they useful for your learning?

a. Looking up information in French
Yes □ No □ Do not know □ Did not use the online links □

If you did not use online links in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

b. Looking up words in French (using online dictionaries, online encyclopaedias, etc)
Yes □ No □ Do not know □ Did not use the online links □

If you did not use online links in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

c. Checking grammar and/or spelling in French
Yes □ No □ Do not know □ Did not use the online links □

If you did not use online links in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

d. Revising for your weekly tasks and/or final essay
Yes □ No □ Do not know □ Did not use the online links □

If you did not use online links in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

e. Reading (for example newspapers) in French
Yes □ No □ Do not know □ Did not use the online links □
If you did not use online links in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

f. Watching TV/ video files in French
Yes ☐ No ☐ Do not know ☐ Did not use the online links ☐

If you did not use online links in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

g. Listening to radio stations in French
Yes ☐ No ☐ Do not know ☐ Did not use the online links ☐

If you did not use online links in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

h. Surfing around French language sites looking at different things
Yes ☐ No ☐ Do not know ☐ Did not use the online links ☐

If you did not use online links in this way, please explain why:
_____________________________________________________________________________
_____________________________________________________________________________

6. Did you learn something new about the ways of using online links in this semester?
If yes, please explain:
_____________________________________________________________________________
_____________________________________________________________________________

7. In your opinion, are there other ways of using online links for learning?
_____________________________________________________________________________
_____________________________________________________________________________

8. Have you got any suggestions regarding the use of ICT tools within French 6?
_____________________________________________________________________________
_____________________________________________________________________________
Part III. The teaching and learning environment

The following section asks you to evaluate a number of aspects of the teaching and learning environment within which the French 6 classes took place. For each aspect, rate it, using the scale following the question.

9. How would you rate, from the point of view of your learning needs, the teaching and learning environment (physical conditions of the classroom, language laboratory, access to computers after class, as well as the teaching materials developed by the teacher and teaching methodology used) within which the French 6 classes took place?

a. How helpful or unhelpful for your learning were the physical conditions of the classroom?
   Very helpful
   Helpful
   Neither helpful nor unhelpful
   Unhelpful
   Very unhelpful

Any comments?
_____________________________________________________________________________
_____________________________________________________________________________

b. How helpful or unhelpful for your learning were the physical conditions of the language laboratory?
   Very helpful
   Helpful
   Neither helpful nor unhelpful
   Unhelpful
   Very unhelpful

Any comments?
_____________________________________________________________________________
_____________________________________________________________________________

c. How helpful or unhelpful for your learning was the computer accessibility outside the classroom, but still on campus?
   Very helpful
   Helpful
   Neither helpful nor unhelpful
d. How helpful or unhelpful for your learning were the teaching materials developed by the teacher?
   Very helpful
   Helpful
   Neither helpful nor unhelpful
   Unhelpful
   Very unhelpful

Any comments?
_____________________________________________________________________________
_____________________________________________________________________________

e. How helpful or unhelpful for your learning were the sets of tasks you were regularly provided?
   Very helpful
   Helpful
   Neither helpful nor unhelpful
   Unhelpful
   Very unhelpful

Any comments?
_____________________________________________________________________________
_____________________________________________________________________________

2. If given the opportunity, what would you change in the teaching and learning environment? Please be as specific as you can:
_____________________________________________________________________________
_____________________________________________________________________________
Appendix D

Class Observation Sheet

Please, when observing the students who gave consent, give general feedback regarding all observed students.

1. The classroom environment:

   a. ICT resources are accessible to each student
      Yes    No

   b. Do you think that the disposition of computers allows learning in teams?
      Yes    No

      Please, justify your opinion:

      ____________________________________________
      ____________________________________________

   c. Do you think that the furniture (for example chairs) facilitates learning in teams?
      Yes    No

      Please, justify your opinion:

      ____________________________________________
      ____________________________________________

   d. Other

2. Methods of delivery:

   a. Lecturer’s voice is audible
      Always  Most of the time  Sporadically  Never

   b. Lecturer uses L2 during the session
      Always  Most of the time  Sporadically  Never

      If the lecturer used L1, please specify the circumstances:

      ____________________________________________
      ____________________________________________

   c. Do you think that the lecturer presents the content of the class using an appropriate vocabulary for the students’ level?
      Always  Most of the time  Sporadically  Never

      Please, justify your opinion:

      ____________________________________________
      ____________________________________________
d. In what way does the lecturer use ICT resources to support teaching?
Please, describe:
_______________________________________________________________________
_______________________________________________________________________


e. Do you think that the lecturer uses ICT resources to explain clearly the activities?
   Always  Most of the time  Sporadically  Never
Please, justify your opinion:
_______________________________________________________________________
_______________________________________________________________________


f. Other

3. Lecturer – students interaction:
   a. Do you think that lecturer’s instructions (provided in spoken and written form) are clear?
      Always  Most of the time  Sporadically  Never
Please, justify your opinion:
_______________________________________________________________________
_______________________________________________________________________

   b. Do you think that the lecturer encourages students to participate actively in the activity?
      Always  Most of the time  Sporadically  Never
Please, justify your opinion:
_______________________________________________________________________
_______________________________________________________________________

   c. In what way does the lecturer encourage students to participate actively in the activity?
      Please, describe:
_______________________________________________________________________
_______________________________________________________________________

   d. In your opinion, does the lecturer give an appropriate feedback to each student during the session?
      Please, justify your opinion:
_______________________________________________________________________
_______________________________________________________________________


e. In your opinion, does lecturer demonstrate awareness of subtexts of students’ behaviour (eye contact, body language, attentiveness)
   Always     Most of the time     Sporadically     Never
Please, justify your opinion:

_______________________________________________________________________
_______________________________________________________________________

f. Lecturer uses L2 when interacting with individual students
   Always     Most of the time     Sporadically     Never
If the lecturer used L1, please specify the circumstances:

_______________________________________________________________________
_______________________________________________________________________

g. Other

4. Students – lecturer interaction:
   a. What student behaviours suggests their positive/ negative attitude towards lecturer
      Please, describe:

_______________________________________________________________________
_______________________________________________________________________

b. Do you think that students ask for explanation/ help when needed
   Always     Most of the time     Sporadically     Never
Please, justify your opinion:

_______________________________________________________________________
_______________________________________________________________________

c. When interacting with lecturer, students use L2
   Always     Most of the time     Sporadically     Never
If the students used L1, please specify the circumstances:

_______________________________________________________________________
_______________________________________________________________________

d. Other

5. Student-student interaction:
   a. When interacting with each other, students use L2
      Always     Most of the time     Sporadically     Never
If the student used L1, please specify the circumstances:

_______________________________________________________________________
_______________________________________________________________________
b. The content of student-student interaction is related to the topic of the class
   Always  Most of the time  Sporadically  Never

   If the student changed the topic, please specify the circumstances:
   ____________________________________________
   ____________________________________________

   c. Other

6. **Student- ICT tool interaction:**

   a. Students demonstrate familiarity with the structure of the Learning Management System (LMS)
      Always  Most of the time  Sporadically  Never

      Please, justify your opinion:
      ____________________________________________
      ____________________________________________

   b. Students use multiple functionalities offered by the ICT tools (Internet connection, Blackboard site, Wikis, On-line dictionaries, On-line conjugation tools, etc.)
      Always  Most of the time  Sporadically  Never

      Please, justify your opinion:
      ____________________________________________
      ____________________________________________

   c. Other

7. **Students’ involvement in the activity:**

   a. What in students’ behaviours suggests that they understand the purpose of the activity

      Please, describe:
      ____________________________________________
      ____________________________________________

   b. What in students’ behaviours suggests that they understand the consecutive stages (mini-tasks) of the activity

      Please, describe:
      ____________________________________________
      ____________________________________________
c. Students spend time on task
   Always  Most of the time  Sporadically  Never
   Any comments?

d. Other

8. Classroom ethos:
   a. In what ways is the atmosphere supportive/one of mutual respect?
      Please describe:
      ____________________________________________________________
      ____________________________________________________________

   b. In what way is the atmosphere encouraging co-operation?
      Please, describe:
      ____________________________________________________________
      ____________________________________________________________

   c. Do you think that students take responsibility for their own learning?
      Always  Most of the time  Sporadically  Never
      Please, justify your opinion:
      ____________________________________________________________
      ____________________________________________________________

   d. How do students take responsibility for their own learning?
      Please, describe:
      ____________________________________________________________
      ____________________________________________________________

   e. Do you think that students show initiative?
      Always  Most of the time  Sporadically  Never
      Please, justify your opinion:
      ____________________________________________________________
      ____________________________________________________________
Appendix E

Focus group questions

1. What was your previous experience with ICT tools? What ICT tools do you use on everyday basis and how skilful you think you are in using them?

2. Do you think you learnt more than just French in this unit?

3. In the online questionnaire, everyone thought Blackboard was a very useful or useful tool for their learning.
   a. Why? What was particularly useful about Blackboard that would justify your opinion?
   b. Can you tell me if you learned something with Blackboard? What?

4. In the online questionnaire, a vast majority of respondents thought Elluminate was an interesting tool for learning French, especially for chatting in French with native speakers.
   a. In what way does this help you with learning French?
   b. What do you think you could learn with this tool?
   c. What did you actually learn?
   d. What would be more beneficial for your learning – a face-to-face conversation with a native speaker or an online conversation (for example using Elluminate or MSN Messenger or Skype, or any similar tool)? Why?

5. In the online questionnaire, everyone thought Wikis were very useful or useful for their learning.
   a. Why? In what way?
   b. What do you think you learned with this tool?
   c. The weekly activities using Wiki required a lot of collaboration. Would you prefer to do these tasks in an “old fashioned” way that is by using paper and performing the tasks in the classroom during class hour? Why?
   d. Could you compare the two ways of completing these activities? What are the differences? Which one would you judge more beneficial for your learning and why?

In the second part of the semester we used Wikis for writing an essay.
   e. Would you prefer writing the assessment on paper or with a word processing package to using Wikis? Why?
   f. Do you think your learning was enhanced by the fact of using an ICT tool for this activity? How?
6. In the online questionnaire some students commented on the usefulness of the **online links**, but some students seemed not to use them.
   a. How would you explain this? For example, do you prefer using an online dictionary or a paper-based one? Why?
   b. Can you tell me what you learned while using the online links?

7. Here are affordances, or in the other words potentials for an action offered by ICT tools and which I identified. Those ones with * are affordances which students didn’t identify in the questionnaire.
   a. Would you agree with my conclusion? Why?
   b. If you agree with me, could you explain why you did not use this particular affordance (did you not notice it/ was it unappealing/ did you think you didn’t need it/ it was irrelevant/ did you not have enough time)?
   c. What do you think influenced your choices about which tools to use and how to use them?

Suggestions to students:

**Blackboard:**
Using an Learning Management System
Learning how to organise a LMS site

**Elluminate:**
Using a new ICT tool
Writing, reading, speaking and listening in French
Collaborating (meaning organising yourselves, managing the activity, controlling the situation, successfully completing the task) with classmates and overseas students

**Wiki:**
Using an ICT tool in French
Writing in French
Collaborating (meaning organising yourselves, managing the activity, controlling the situation, successfully completing the task) with classmates and overseas students

Real World Learning – Wiki is a software widely used in big companies and corporations for internal collaboration between departments and sections. An (important) affordance of the **unit** was to give students the opportunity to familiarize themselves/ use various forms of technology such as Wikis which are used in the Real World.
Online links:
Using an ICT tool in French
Researching in French
Self-directed learning French

8. You need to continue your learning of French. Which ICT tools would you use, how and why? Think about any ICT tools that are available in your everyday environment.