Tracking students’ autonomization through emotion traces in logbooks

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Abstract

Until relatively recently the impact of emotions on language learning has often been ignored and “the nature and contribution of positive emotions and beneficial emotional states deserves further attention” (Bown & White, 2010, p. 433). Our study focuses on a flexible language learning system that combines different elements: work in a virtual learning environment, group work, counselling sessions and a logbook. One of its objectives is to help students progress towards autonomy—defined as “the capacity to take control over one’s own learning” (Benson, 2011, p. 2)—in their learning of English. The logbook has been shown to be useful in helping students become conscious of the new role they have to play in such a system (Chateau & Zumbihl, 2012). A discourse analysis of 100 logbooks from the 2012-2013 cohort of students showed that the traces of emotions they contained could enable us to identify important steps in the development of autonomy, as well as make hypotheses on the links between emotions, students’ self-efficacy and the development of learner autonomy.

Keywords: flexible language learning system, autonomization, emotions, self-efficacy
1. Introduction

Numerous researchers in various fields concerned with language learning and acquisition have tried to understand what could make learners more successful in their language learning. Researchers of learner autonomy are among them. From the beginning, theorists such as Little (1991) have firmly grounded this notion in the psychology of learning, in particular in constructivist approaches, using the work of Barnes (1976), Bruner (1966), Kelly (1963), Rogers (1969), and Vygotsky (1978) to defend and legitimize this approach. Tremblay and Eneau (2006) argue that the psychological dimensions of autonomy have been the subject of a great number of existing studies, to the detriment of social and environmental dimensions, for example. We would like to add that all psychological dimensions have not been as thoroughly investigated as others, with the organizational dimensions, both cognitive and metacognitive, being predominant in research. Surprisingly, given the now widely accepted research in neurosciences showing that cognition and emotion are largely indistinguishable, studies of the emotional dimensions of learner autonomy remain rare. It is all the more surprising since the two studies of affective strategies Benson (2011) reported on “provide some evidence of their importance” (p. 88), both suggesting that “language learners are aware of the emotional side of language learning and are capable of using strategies to control their emotions” (p. 89).

In psychology, the line of research which finds its roots in Bandura’s (1997) work on self-efficacy has largely contributed to bringing emotions to the fore. However, the impact of emotions on language learning, except for work on specific emotions (see Oxford, this issue; Horwitz, 2010), has often been ignored. As Bown and White stated in 2010: “The wider spectrum of students’ experiences of emotions including enjoyment of learning, hope, pride, satisfaction, relief, anger, boredom and shame, for example, has largely been overlooked. The nature and contribution of positive emotions and beneficial emotional states deserves further attention” (p. 433). More generally, there is a growing body of recent research calling for a greater recognition of the role of emotion in learning, among which there is Mendez-Lopez (2011), who declared that “the investigation of emotions has not been at the forefront of the research agenda in the English language teaching field . . . [although] . . . there are numerous scholars who have acknowledged that foreign language learning motivation is emotionally driven” (p. 44). In Scovel’s words (as cited in Benson, 2011, p. 88), emotions are potentially “the most influential force in language acquisition” but seem to remain an area that SLA researchers understand very poorly, making it clear that research is urgently needed in this area.
In order to try and fill this gap our article aims at presenting the results of a study of the possible links between emotions and the development of learners’ autonomy within the context of a flexible language learning system developed in a French university. The paper first presents the theoretical background of the study, then its context and objective. The next parts focus on the questions and hypotheses, on the methodology adopted for the study, and finally the results are presented and discussed.

2. Theoretical background

In the last 30 years, research on learning and self-study in the field of language learning (Benson, 2011; Holec, 1981; Little, 1991, Murray, Gao, & Lamb, 2011; Portine, 1998) has led to the creation of innovative flexible language learning systems, very often within the context of self-access language resource centres (Rivens Mompean, 2013). Their aim has been to develop both language learning and learning to learn. This has fostered reflections on the concept of autonomy, as defined by Holec (1981) as the “ability to take charge of one’s own learning” (p. 3). For Little (1991), autonomy is neither a synonym for self-instruction nor a teaching method or methodology (p. 3), but is seen as a “psychological necessity” (p. 14). Furthermore, Little, Ridley and Ushioda (2002) elaborate:

Our previous work in the field [convinced] us that learner autonomy is not an optional extra, to be developed or not . . . On the contrary, we believe that autonomy is an essential characteristic of all truly successful learners, regardless of their age or the domain in which they are learning. (p. 1)

Moreover, autonomy is not innate (Bertin, Grave, & Narcy-Combes, 2010; Holec, 1990) but can be gradually developed. Since the development of autonomy is an ongoing process, autonomy is not “a steady state achieved by certain learners” (Little, 1991, p. 4) but is best defined as a continuum. Therefore, autonomy is a convenient theoretical construct, but, as such, it does not lend itself easily to inquiry. For this reason, in our studies we prefer to refer to the process of autonomization, defined as a “matter of acquiring those capacities which are necessary to carry out a self-directed learning programme” (Holec, 1985, p. 180). Autonomization indeed implies a necessary process of transformation of the learner, as explained by Mozzon-McPherson (2007):

Starting from the premise that autonomy is an ability and a capacity to determine the objectives of one’s learning, define the contents, select the methods and the resources, and monitor progress and evaluate outcomes (Dickinson, 1987; Esch, 1994),
then such development is seen as a process of transformation within the individual. It can happen anywhere, and at any stage of life. (p. 70)

The same author also pinpoints the fact that “each learner in a LSM [learner self-management] programme undergoes a gradual transformation, one which challenges beliefs about language and perceptions of their roles as learners” (p. 70).

Discoveries in the field of neuroscience in the last 30 years have led to a growing interest in emotions (Berthoz, 2003; Damasio, 1994). Emotions underpin behaviour and decision-making, and rationality requires emotional input. Berthoz (2003) shows, after Darwin (1872/2009), that decisions imply a highly hierarchized process in which emotions play a fundamental role. The fact that several researchers have shown the importance of the affective dimensions of learning does not come as a surprise. Learning is indeed a process implying emotions (Candas & Eneau, 2010; Linard, 2003; Trocmé-Fabre, 2003), and emotions can sometimes interfere with, or even prevent, learning (Horwitz, 2010).

The concept of “self-efficacy,” defined by Bandura (1998) as one’s belief in one’s ability to succeed in specific situations, is very important to manage emotions, such as stress or anxiety for example, which could be a hindrance to learning. Bandura (1998) mentions four main sources of influence on the development of self-efficacy beliefs:

- Performance attainment derived from mastery experiences: the most effective way of creating a strong sense of efficacy.
- Vicarious experiences provided by social models (seeing people similar to oneself succeed).
- Verbal (or social) persuasion.
- Physiological feedback (or emotional arousal): People interpret stress reactions and tensions as signs of vulnerability to poor performance. “Mood also affects people’s judgments of their personal efficacy. Positive mood enhances perceived self-efficacy, despondent mood diminishes it” (Bandura, 1998, p. 3).

Somatic and emotional states are thus one of the four sources of self-efficacy. Moreover, since for Bandura self-efficacy is so important to manage emotions that could prevent learning, he suggests building learning environments that help learners develop their self-efficacy by controlling negative emotions. Referring to teachers or trainers, Bandura (1998) emphasizes the nature and extent of their role:

Successful efficacy builders do more than convey positive appraisals. In addition to raising people’s beliefs in their capabilities, they structure situations for them in ways that bring success and avoid placing people in situations prematurely where they are likely to fail often. (p. 2)
Mills (2014) explains how, in the 21st century, researchers in foreign language learning, in particular motivation scholars, came to integrate self-efficacy research in educational psychology into their investigations so as “to guide their research and understanding of language development” (p. 12). Her review of recent research in this area shows that “these investigations established a relationship between self-efficacy and FL [foreign language] achievement” (p. 12). Moreover, we would like to suggest that the study results in Mills (2009) point to a link between self-direction in a formal context and self-efficacy, when the course is project-based, learner-centred and open to the outside world:

Mills (2009) suggests that the positive emotional indicators experienced by students during a project-based learning course, including increased engagement, enjoyment, and motivation, may have played a key role in enhancing their self-efficacy beliefs in French. Furthermore, learner-centred curricula, which allow students to become active decision-makers and engage with a wide network of available resources both inside and outside the classroom, may also play a role in increasing students’ self-efficacy. (Mills, 2014, p. 19)

The importance of emotions on the development of self-efficacy in order to enhance learning thus led us to trying to find a way to study learners’ emotions. The definition of the concept of emotion being rather complex (Scherer, 2005), however, we decided to rely on that given by Cosnier (2006, p. 18). He indicates that, for most specialists, primary or basic emotions include fear, surprise, anger, happiness, sadness, disgust and their derivatives. This definition is close to the definition given by Plutchik (1980), one of the most widely recognized classifications of emotional responses.

3. Context

Our study was carried out in the University of Lorraine, France, in which a flexible language learning system has been designed to improve first year MA psychology students’ skills in English, as well as their autonomization, in the first semester of the university year. The objective, defined in cooperation with the professors in charge of the MA degree in psychology, is to make students able to follow a course in scientific English given in the second semester of the university year. The system, first introduced in 2006, combines online work in a virtual learning environment (VLE) that offers several types of resources and exercises, class sessions, collaborative work (in groups of two or three students), as well as counselling sessions, with counselling being understood here as it was defined by Gremmo (1995), among others. This learning system, already described in previous publications (e.g., Chateau & Zumbihl, 2010, 2011, 2012) has been gradually improved over the years, via students’ feedback, and includes a number of guidance elements such as:
• an introductory practice session where the students find their way around the tools and resources available,
• a forum to enable the students to find solutions to their problems (either linguistic or technical) with their peers or their counsellors.

The flexible system and its impact on learners have been continually studied and evaluated since its initial introduction by action-research, a cyclic process in which action and critical reflection take place in turn. Some of its elements have been validated over the years, and a new guidance element was introduced in the university year 2008-2009. This element, a logbook, helps students to keep a record of their autonomous learning all along the semester; it is a free space with some guiding principles: Students write the dates, duration of their work sessions, the resources and activities they worked on, the difficulties they had, how they solved them (or not), and what they thought about these resources and activities. Moreover, at the end of their work, they have to give a personal assessment of what they did during the semester (i.e., their impressions and perspectives). The students are told from the beginning that the tutors will read their logbooks and sometimes annotate them so as to help them in their learning process.

A study carried out over the first cohort to use this new guidance element validated the logbook as a useful tool for improving learners’ reflexivity (Chateau & Zumbihl, 2010). Even though it would be illusory to expect the logbook, or any other tool, to induce changes for every learner given the fundamentally complex and individual nature of the autonomization process, it did nevertheless show that the system increased the probability of something significant happening for learners as far as their autonomization was concerned. This confirmed results found by Dam (2006) and Rivens and Eisenbeis (2009) that led these authors to conclude that students’ logbooks helped them to become more autonomous. Furthermore, a later study (Chateau & Zumbihl, 2012) showed that students’ comments in their logbooks illustrated “the necessary process of transformation that learners have to undergo in order to reach autonomy (Mozzon-McPherson, 2007; Portine, 1998) and [demonstrated that] it is a long and difficult process that requires support” (p. 171). That second study confirmed previous results and also showed the necessity to study the transformation process in more detail.

4. The study

4.1. Questions and hypotheses

As part of our endeavour to study learners’ autonomization process, which, as mentioned earlier, has been shown to be facilitated by reflective writing in logbooks, we decided to focus on the learners’ transformation process, mentioned by Mozzon-
McPherson (2007) as necessary for learners to become more autonomous, in order to determine whether it could be traced in the logbooks, and, if it could, explore the way it appeared and identify the elements that could help to trace it.

Our first analyses of 100 logbooks seemed to show that the autonomization process develops irregularly and unpredictably. We postulated that “events,” specific to each learner, occurring at some particular point and inducing reflexivity and awareness, triggered transformation. Indeed, studies in the field of what is called in French *autoformation existentielle*, an existential approach to transformative learning, support this idea of transformation originating from “striking events” (Galvani, 2010). An additional hypothesis was that such events occurring in the midst of their work for the English module would probably be recorded in the logbooks and, given that cognition and emotion are intermingled (Damasio, 1994), might be detected thanks to traces of the emotions felt in relation to these events.

Finally we also decided to study whether the transformation process had been sparked and encouraged in any way and, if that was the case, to try to understand how.

### 4.2. Methodology

Out of a cohort of 112 students in the university year 2012-2013 some logbooks were incomplete and could not be analysed. Every year there are indeed students who give up the course for reasons not necessarily linked with language learning, in particular those who at some point decide to take up their first year of the MA degree in two years. Our data thus consisted of 100 logbooks numbered from 1 to 100 in the next sections of the article. Two were written entirely in English, 14 alternately in English and French and the rest (almost) entirely in French. Our examples in the result and discussion sections will thus be in one of these two languages and translated when given in French. In order to analyse these logbooks, we used content analysis as described by Bardin (2001), that is, a form of discourse analysis consisting in the two following stages:

- **Sequence analysis:** In this type of analysis, the discourse is studied in its development. The objective is to follow the thinking process and the dynamics of the discourse. A new sequence appears when there is a change in the subject for example, or when the author changes her or his way of expression from description to explanation.

- **Thematic analysis:** With this type of analysis, the contents of a document can be divided into categories which are then applied to all the texts to be analysed. Each theme corresponds to a meaning unit, which includes all the ideas on a specific subject.
In this case, we looked for all phrases and words implying emotions, changes, and raised awareness which we found to be recurrent in the sequence analysis.

4.3. Results

In the 100 students’ logbooks analysed, we found two main categories:

- Thirty logbooks were rather clearly limited to facts and contained only a very short description of the activities carried out by the students. In this first category of logbooks, students only gave the results they obtained in exercises, and there were no traces of emotion or transformation. These logbooks consisted in mechanical descriptions of exercises where we could not find any real trace of personal implication.

- In the remaining 70, that is to say in a little more than two thirds of the logbooks, we could associate an “event” in the logbook and either raised awareness leading to a change in representations, or traces of emotions, or taking action. The “events” most often mentioned in a majority of the students’ logbooks were the counselling session, specific exercises offered in the VLE such as the recording exercise they have to do from a podcast they choose from the Scientific American site, or the feedback they obtained on a given task from the teacher. We were able to identify raised awareness concerning the language learning process through terms some students used such as: “(se) rendre compte” ‘to realize;’ “realized;” or “revelation” (which is a very strong term). Traces of negative emotions could be found in terms such as “peur” ‘fear;’ “apprehension” or “frustrant” ‘frustrating,’ and traces of positive ones in the verbs “plaire” ‘to enjoy,’ “like” or “adorer” ‘love’ and their diverse forms. Finally, some of the logbooks revealed their author’s intention to take action and go on with their learning of English, even after the end of the course.

Table 1 gives a quantitative view of the results.

**Table 1** Number of occurrences of 4 types of linguistic traces per element included in the flexible language learning system

<table>
<thead>
<tr>
<th></th>
<th>Raised awareness</th>
<th>Traces of negative emotions</th>
<th>Traces of positive emotions</th>
<th>Traces of “Taking action”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Langues-U exercises *</td>
<td>10</td>
<td>11</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Recording exercise</td>
<td>20</td>
<td>5</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>Counselling session</td>
<td>12</td>
<td>0</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Summary/commentary (+ group work)</td>
<td>1</td>
<td>0</td>
<td>42</td>
<td>1</td>
</tr>
<tr>
<td>Final assessment/ impressions on the system</td>
<td>34</td>
<td>3</td>
<td>65</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>19</td>
<td>177</td>
<td>22</td>
</tr>
</tbody>
</table>

*Note. *Langues-U is a Lorraine University VLE with online thematic files of authentic video, audio and written documents. The documents focus on a given subject (psychology, education, the environment, technology) and are accompanied by pedagogical activities.
Table 1 summarizes the numbers of occurrences of linguistic traces we found in the logbooks in connection with the “striking events” the students reported, all in relation to elements in the flexible system. As far as the recording exercise is concerned, we found 40 occurrences linked with terms indicating positive emotions such as intéressant ‘interesting’ and plaisir ‘pleasure,’ or with terms revealing some change or raised awareness such as “je me suis rendu compte” ‘I realized.’ In the final assessment section of the logbooks, we could find 34 linguistic traces indicating that the student’s awareness had been raised concerning her or his language learning process. One such example is present in Logbook 99:

Pendant des années, j’ai toujours pensé que j’avais un niveau d’anglais faible mais grâce au cours d’anglais que j’ai suivi pendant ce premier semestre, maintenant je pourrais dire que non seulement, cela m’a aidé à m’améliorer mais surtout après que j’ai eu mon feedback de l’enregistrement audio et que j’ai su que je l’ai réussi au premier coup, ma plus grande réussite, c’est que cela m’a vraiment encouragé pour continuer et m’a redonné plus confiance pour l’avenir.

[I had always thought my level of English was low, but thanks to the English course this semester I can say it helped me improve, and above all after the feedback I obtained for my recording, I knew it was my most important success, and it really encouraged me to go on and gave me confidence for the future.]

Several traces of emotions mentioned in the learners’ discourse were linked with the intention of taking action and seem close to mastery experiences, essential to the building of self-efficacy according to Bandura (1998). For example a student (Logbook 61) declares:

J’ai trouvé ce système vraiment intéressant, car il permet de travailler à son rythme. Pour moi qui ai de nombreuses difficultés, j’ai pu travailler sur les problèmes que j’avais et à mon allure. J’ai aujourd’hui conscience que maîtriser l’anglais est important dans ma futur vie professionnelle et personnelle. C’est pourquoi, je monte actuellement un projet pour partir travailler deux mois dans un pays anglophone cet été.

[I found the flexible system very interesting because you can work at your rhythm. I am now aware of the fact that mastering English is important for my future professional and personal life. That’s why I am now preparing a project to go and work in an English-speaking country for 2 months next summer.]

As Table 1 indicates we found relatively few traces of negative emotions. One might argue that it is only logical, since the students could have been afraid of criticizing the system designed by the teachers, in particular because they knew their logbooks would be read and evaluated. The same could be the case for traces of positive emotions. However, what could perhaps be regarded as
“disguised compliments” is almost always restricted to specific exercises or tasks, with the same students not hesitating to give neutral or negative feedback about other tasks, which seems to imply that these students were honest in their comments.

Among the traces of positive emotions we found numerous occurrences of terms linked with the notion of interest, which Silvia (2008) calls an “eccentric emotion” (p. 57). The words intéressant and interesting, for example, were used 93 and 23 times respectively, thus standing out as particularly significant in our data. Interest is not included in classical lists of emotions—though it is present in Plutchik’s wheel of emotions—but mentioned by Silvia (after Darwin) among “knowledge emotions: states such as interest, confusion, surprise, and awe” (2008, p. 57). Silvia (2005) also writes it is “an emotion associated with curiosity, exploration, and information seeking” (p. 89). For Mendez-Lopez (2011), the function of interest is to motivate learning and exploration. Interest thus drives us to discover new things, which is an important component in learning. We are well aware that words such as intéressant are very common, at least in French and in English, and could be said to convey a weak meaning. However, our hypothesis is that, in some cases, interest could also signal a favourable terrain in a learner, opening the way for further exploration. Further research is warranted to address this question.

5. Discussion

The study confirms that logbooks are tools that allow and facilitate learners’

- verbalization of their learning process, in that they provide spaces where students describe their day-to-day steps, progress, decisions and hesitations alike, expressing their discoveries, difficulties, opinions and impressions, either during the learning phases or at key moments.

- reflexivity, since students sometimes describe “events” that led them to realize or understand something of importance about their learning process or themselves as learners, somewhere along the logbooks or more frequently in the final assessment section.

Indeed, regarding reflexivity, a certain number of logbooks indicate that students need time before they start to reflect upon their learning activities. This is particularly striking for example in Logbook 11, where the student gives a rather factual description of her activities and results all along the semester and only starts reflecting on her work and giving her impressions in the final assessment part at the end of the module. The timespan necessary for reflection to occur thus seems to be an element that should be taken into account by designers of flexible language learning systems, as is the need for specific moments, or even tasks, with a clear focus on assessing one’s learning choices and trajectory.
When it happens, the transformation process is apparent in the logbooks and it is generally linked with an event which induces awareness raising. But not all events produce the same effects and the transformation process does not appear predictable. This seems to indicate that the variety of tasks and tools present in the flexible language learning system is a means to cater for the needs of learners who are all different and may well increase the likelihood of triggering something significant in each learner’s autonomization process. Sometimes the transformation may seem limited (e.g., “I am not that bad at English,” “pronunciation is very important”), but it led some students to actually take action and probably enhanced their self-efficacy.

An obvious limitation of this study is its time duration. The logbooks are written while the students work in the flexible system, that is, over a period of four months, which is relatively short in view of the complexity of the psychological processes involved in autonomization, all the more so since our findings showed that time is a crucial parameter as far as the onset of reflective thinking is concerned. A longer period of study would certainly be necessary to know if other changes occurred in the long term.

6. Conclusions

One could object that this study is somewhat biased since the logbooks are one of the requirements that students have to fulfil in order to validate their language module. This may have an influence on the words and phrases the learners use to express themselves. They could indeed feel prone to express more positive emotions than negative ones, but they could also choose to remain neutral, which they did not in many logbooks. Moreover, it should be noted that the students know from the start that the only requirement concerning logbooks, which are not graded by the teachers, is to respect the guiding principles mentioned in the context section of this article and that no specific content is required. Having said that, and although the results remain to be confirmed in other contexts, we contend that our findings provide exciting new leads on how to track traces of the autonomization process in reflective writing while opening up prospects of research on potential ways of fostering it.

As far as traces of emotions are concerned, our study focused exclusively on lexical elements and confirmed the validity of this choice. However, further exploratory reading of the logbooks revealed that other elements might be of interest. Punctuation marks for example are probably expressive of emotion. The exclamation marks, ellipsis marks or smileys present in a certain number of logbooks seem to indicate that an emotion of some kind is at play. This additional layer of analysis has not been explored yet, but we believe it would probably be worth investigating in future studies.
References


