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# The effects of teacher training on foreign language pre-service teachers' beliefs: the case of oral corrective feedback

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# The effects of teacher training on foreign language pre-service teachers' beliefs: the case of oral corrective feedback

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# ABSTRACT

The objective of this study is to contribute to the range of research exploring change in teachers' corrective feedback (CF) beliefs to better inform future teacher training programs. The research questions used to accomplish the purpose of this study focused on1) what beliefs Algerian pre-service teachers of French as a foreign language (FFL) at University of Hadj Lakhdar Batna hold regarding CF before a CF training course, 2) how those beliefs change after a CF training course, and 3) what dimensions of the training course influence these pre-service teachers' beliefs about CF?

Two groups of 14 Algerian MA pre-service teachers of FFL-one experimental and one control- participated in this study. The experimental group participated in a teacher training course about CF while the control group did not. The research instruments included a Likert-scale questionnaire and focus group interviews that addressed four CF factors (recasts, prompts, CF implementation and CF importance). Each of the two instruments was administered twice before the training started and immediately after it ended, with only the experimental group taking the pre and post focus group interviews. The training course included theoretical information and empirical results about CF and its dimensionsas well as a practical component (teaching activities).Data obtained from the two research tools were analysed descriptively. Patterns of belief change-in the interviews transcripts- were identified using five categories about types of change (reversal, elaboration, consolidation, pseudo change and no change).

Findings indicated that prior to the CF training, preservice teachers' beliefs were barely defined (i.e. they were largely neutral) especially in relation to CF techniques (recasts and prompts) for error type and learner's proficiency level. Furthermore, they were against immediate CF and did not have a clear idea about which errors should be corrected. Concerning the results in belief change, the CF training course was found to be effective. That is, after CF training, there was an obvious shift toward more positive beliefs about immediate CF and more negative beliefs about recasts. Furthermore, participants underwent a total re-construction of their beliefs in relation to the four factors with lots of elaborations. Participants attributed change in their beliefs to the second part of the training course (CF empirical

studies, CF techniques and CF implementation). The participants explained that they were exposed for the first time to this content about CF and its dimensions.

**Key words:** teacher beliefs, corrective feedback, teacher training, preservice teachers, French as a foreign language, belief change, recasts, prompts.

# RÉSUMÉ

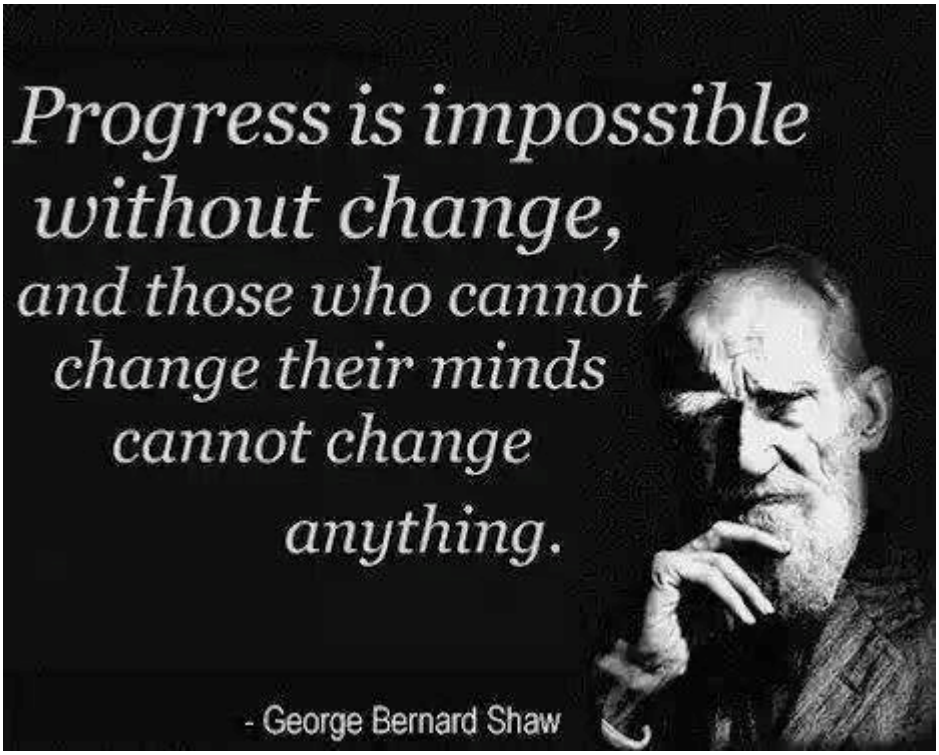
L'objectif de cette étude est de contribuer à explorer le changement dans les représentations des enseignants quant à la rétroaction corrective (RC), et ce, afin de mieux informer les programmes de formation des enseignants. Pour atteindre cet objectif, nous avons tenté d'apporter des éléments de réponse aux questions de recherche suivantes (1) quelles représentations relatives à la RC les futurs enseignants Algériens de français langue étrangère (FLE) détenaient-ils avant la formation, (2) comment ces représentations ont-elles changé après une formation sur la RC, (3) quels éléments de la formation sont-ils les plus susceptibles de changer les représentations de ces futurs enseignants quant à la RC?

Deux groupes (un groupe expérimental et un groupe témoin) de 14 futurs enseignants Algériens, inscrits au Mastère en FLE, ont participé à l'étude. Le groupe expérimental a participé à un cours de formation sur la RC, alors que le groupe témoin n'a pas participé. Les instruments de recherche comprennent un questionnaire à échelle de Likert et des groupes de discussion (entrevues) qui abordent quatre facteurs en rapport avec la RC (reformulation, incitation, mise en œuvre des techniques de RC et importance de la RC). Chacun des deux instruments a été administré avant et après la formation, et seul le groupe expérimental a effectué les entrevues avant et après la formation. La formation inclut une base théorique et des résultats empiriques sur les différentes dimensions de la RC, ainsi qu'une composante pratique (activités d'enseignement). Les données provenant des deux outils de recherche ont été analysées de façon descriptive. Les exemples de changement de représentations - dans les transcriptions d'entrevues - ont été identifiés en utilisant cinq catégories correspondant aux différents types de changement (inversion, élaboration, consolidation, pseudo-changement et aucun changement).

Les principaux résultats de cette étude : (1) avant la formation, les futurs enseignants avaient des représentations neutres et non claires sur les techniques de RC (reformulation et incitation) qui doivent tenir compte du type d'erreur et du niveau de compétence de l'apprenant. De plus, les participants du groupe expérimental étaient contre la RC immédiate et n'avaient pas une idée précise sur les erreurs à corriger ; (2) la formation sur la RC a été jugée

efficace. En d'autres termes, après la formation, il y avait un changement évident vers des représentations plus positives au sujet de la RC immédiate et des représentations plus négatives quant à la reformulation. En outre, les participants ont subi une reconstitution totale de leurs représentations en lien avec les quatre facteurs avec beaucoup d'élaborations. Les participants ont attribué le changement de leurs représentations à la deuxième partie de la formation (études empiriques, techniques de RC et mise en œuvre de la RC). Les participants préconisent qu'ils ont été exposés pour la première fois à ce contenu sur la RC. Cette étude offre des implications pour d'autres études autour de questions de recherche similaires.

**Mots-clés:** représentations des enseignants, rétroaction corrective, formation des enseignants, futurs enseignants, français langue étrangère, formation, changement des représentations, reformulation, incitation.


Progress is impossible
without change,
and those who cannot
change their minds
cannot change
anything.
- George Bernard Shaw

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## LIST OF ABBREVIATIONS

CBA = Competency based approach

CF = Corrective feedback

CFI = Comparative Fit Index

EFL = English as a foreign language

FFL = French as a foreign language

FL = Foreign language

L1 = First language

L2 = Second language

PCA = Principal component factor analysis

TLI = Tucker Lewis Index

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# INTRODUCTION

This study is motivated by the need to investigate the effects of teacher training on teachers' beliefs about corrective feedback (CF), especially that most researchers agree about the importance of feedback in second language (L2) classrooms (Ammar & Spada, 2006; Lightbown & Spada, 1990; Lyster, 2004a; Spada & Lightbown, 1993; White, 1991; see the meta-analysis by Lyster & Saito, 2010). The last 15 years have witnessed a steady increase in the number of studies that have examined teacher beliefs about L2 teaching and learning (Phips & Borg, 2009). However, very few studies investigated teachers' beliefs about CF. Moreover, with the exception of Borg (2005a), Bush (2010), Ho-yan Mak (2011) and Vasquez and Harvey (2010), these few studies looked at beliefs as a static concept (i.e., at one specific point in time) and did not explore the effects of teacher education programs and courses on teachers' beliefs about L2 teaching in general and CF in particular. In an attempt to fill the existing void, the present study examines the effects of a CF teacher training course on French as a foreign language (FFL) Algerian pre-service teachers' beliefs about CF.

Chapter 1 presents the problem of the study. First, through a description and an analysis of the ministerial program of FFL in Algeria, we highlight the importance of CF from a pedagogical perspective. Second, by exposing major second language acquisition (SLA) theories and hypotheses, we demonstrate the insufficiency of comprehensible input in L2 learning and the necessity of attention to form and CF in the learning process. After that, the importance of developing teachers' beliefs about CF is highlighted, then the objectives of the study are stated.

In chapter 2, we define CF and we present descriptive as well as experimental research about CF. After defining teacher cognition and teacher beliefs, this chapter presents the different factors affecting belief development and overviews some relevant descriptive studies. The importance of training for teachers' beliefs is then highlighted and the concept of teacher education is defined. Next, the debate about the possibility of developing or changing teachers' beliefs through training programs is examined. Against this framework, examples of studies that showed either resistance or change in teachers' beliefs are tallied in relation to mathematics, language in general, L2 and CF in particular.

After that, we present the approaches used to report on teachers' beliefs. Finally, we present the research questions

Chapter 3 describes the design of the study. First, it describes the context of the study, including a description of the participants and the training course. Second, data collection instruments are described. Finally, the research procedures, including questionnaire validation and data analysis procedures, are outlined.

Chapter 4 presents the results of the data analysis. The results on the questionnaire validation procedure are presented first. They are then followed by the results in relation for research question.

After discussing the obtained results, the pedagogical implications of the current study along with its limitations are presented in chapter 5. Directions for future research and the conclusion are provided in the same chapter.

# CHAPTER 1: THE PROBLEM

## 1.1 Introduction

Knowing several languages could facilitate communication between individuals of different nationalities, permitting deeper access to a variety of cultures and knowledge. In particular, learning a second language (L2) or a foreign language (FL) at school could pave the way for learners to pursue their studies in a language other than their first language (L1). It can also enable them to conduct their work in a second language or FL language environment. Because of these reasons, learning an L2 or a FL is important for children in Algeria and all over the world. As arabophones and allophones (i.e., who have neither French nor English as a first language), Algerian children find themselves in a position where they have to learn both French as foreign language (FFL) and English as a foreign language (EFL).

In Algeria, the L1 for most of the country population is Arabic. French is considered as the first FL and English as the second FL by order of importance. This ranking could be attributed to the fact that France had colonized Algeria for 132 years (1830-1962). These 132 years of colonization made of French a very lively language that is always present in all areas alongside Arabic. French took the place of a second language that was necessary for the development of the country, the mastery of which has become obligatory to obtain a public employment (Djaoud, 2003). Arabic and French do not have the same origin nor the same development patterns: important differences mark these two languages, not only at the phonological level, but also at the lexical and morphosyntactic levels. These differences cause a great difficulty to Algerian learners (Amara, 2001).

French is the first FL taught in Algerian educational settings (i.e., primary -middle-secondary-university). A highly important subject matter, French is used as tool of access to knowledge and as a medium of intercultural communication and until our days it became a school subject matter in the Algerian establishments, this latter use it in a double objective: initially like a tool of access to a knowledge, then like a means of opening on the occident and universal civilisation. For this reason, Algerian schools should "allow the mastery of at least two foreign languages as an opening on the world and as a mean of access to the documentation and exchanges with foreign cultures and civilisations" (*La Loi d'Orientation sur l'Education Nationale, Algérie, 2008)* Hence:

> "The teaching\learning of foreign languages in Algeria should allow Algerian learners reach directly universal knowledge, and be open to other cultures, (...) foreign languages are taught as a communication tool, allowing direct access to universal thought causing productive interactions with national languages and cultures. They contribute to intellectual, cultural and technical training and raise the competitivity level in the economic world." (*Référentiel Général des Programmes Scolaires. Algérie, 2009*)

Today, the Algerian education system considers the learner as the center of interest of all pedagogical activities. In relation to foreign languages including French and English, the competency based approach (CBA) is adopted today in most school establishments (*Commission Nationale des Programmes, Algérie, 2003)*. This approach was introduced in the Algerian education system in 2003, following a reform to the traditional method 'the communicative approach'. The present study focuses on the teaching of FFL in Algeria. Particularly it tackles pre-services teachers' beliefs about FFL teaching. In order to have a better understanding of the context for this study, more details about FFL teaching are provided below.

### 1.2 French as a Foreign Language Program in Algeria

In 2003, the Algerian Ministry of National Education adopted the CBA as an approach to teaching FFL. The CBA puts the learner at the center of the learning process and make him responsible of his learning. This is what Boutin (2004) highlighted in that the learners are responsible for their learning, and it is up to them to pursue different opportunities that would allow them to consolidate and refine their knowledge. Boutin sums up the role of the learner into three points; 1) collect new information; 2) develop new ways of learning; 3) learn to use new technologies, such as software and internet access. This approach in Algeria aims to develop oral and writing competencies. Table 1 describes these three competencies.

Table 1

*Oral and Writing Competencies for Third Year Middle School (Document d'Accompagnement des Programmes de la 3eme Année Moyenne- Algerie)*

| Oral | writing |
|---|---|
| Listen to react in a communication | Build a sense based on reading an |

| | |
|---|---|
| situation | explicative text. |
| Build a sense based on a listened explicative message | Produce a variety of explicative texts |
| Take a position during a classroom exchange (between two or more interlocutors) | Master the rewriting levels and the linguistic processes to improve writing. |
| Produce a coherent statement to make explanations. | |

Note: Third year middle-school in Algeria corresponds to 8th or 9th grade in Canada

Furthermore, each level of study (i.e., primary, middle and secondary) has its own objectives that fit the learners' language proficiency level. For example, the teaching objective of FFL at Algerian primary schools is the progressive development of oral (listening/speaking) and written (reading/composing) communication competencies in school situations that fit their learners' cognitive development (*Commission Nationale des Programmes, Algérie, 2003*).

The CBA approach puts the teacher in a role of facilitator. Hence, the role of the teacher in the CBA is helping the learners develop and use learning strategies and build knowledge through discovery by giving them problems to solve *(Document d'Accompagnement des Programmes de la 3eme Année Moyenne- Algerie)*. One of his roles consists of "giving learners feedback: highlighting their errors, and correcting them" (Roegiers, 2006, p. 34). In this perspective, the role of teacher is described in relation to the traditional approach in Table 2.

Table 2

*The Role of Teacher in the Traditional and the New Approach (Document d'Accompagnement des Programmes de la 3eme Année Moyenne- Algérie)*

| The role of the teacher | | |
|---|---|---|
| Old/ former approach<br><br>holder of knowledge<br>He dispensed his knowledge<br>He was ubiquitous in class<br>He decided everything in class<br>He was authoritarian | New approach: CBA<br><br>Guides/helps<br><br>Advisor<br><br>Facilitator<br><br>Co-learner<br><br>Engages learners<br><br>Do individual teaching (if necessary)<br><br>Develop autonomy in learning | What has changed?<br><br>Less authoritarian attitude<br><br>Open for discussion, and negotiation<br>Takes into account the troubles and interests of his learners |

In relation to grammar teaching, two methods are followed in Algerian schools (elementary, middle or standard and secondary); namely implicit and explicit grammar teaching. Implicit grammar implies training learners to use linguistic rules without naming them; this method is usually used during the first years of teaching FFL in each establishment. On the other hand, and once language rules are internalized, teachers would gradually adopt a more explicit approach to grammar teaching. The latter involves naming and clarifying language facts or rules using metalanguage (a range of words serving to describe the categories and linguistic functionalities\operations, example; subject, verb, types of texts...etc).

According to the new approach, grammar should be used as a mean serving communication and expression, as the objective is to make learners communicate and express themselves fluently and accurately in speaking and writing as well. In this perspective, the role of the teacher is to guide his learners in discovering concepts (reflecting, analysing, synthesizing using comparisons and inferences), and help them express these concepts using their own language. Once assimilated, these rules can be

taught explicitly. However, in its description of the teacher's role in CBA, the FFL program in Algeria does not emphasise on CF provision. The associated document for the teaching of foreign languages whatever French or English in Algerian schools talks only about grammar teaching and teaching language aspects. Furthermore, in Algeria, researchers start to pay few attention to the errors learners make while learning FFL. However, the studies investigating learners' errors and how to react to these errors are very scarce and descriptive in nature (Ayach Rabehi, 2014; Bentayeb, 2012; Bouhechiche, 2009). As an example, Bouhechiche (2009) analysed classroom oral interactions for error types and CF for second year secondary learners of FFL. Bentayeb (2012) identified and analysed written errors made by third year secondary learners of FFL. Ayach Rabehi (2014) reported university teachers and students' beliefs about the provision of oral CF.

The above mentioned descriptive studies demonstrated that Algerian learners make lot of oral and written errors. Furthermore, despite the importance of CF that has been put forward by many researchers (Doughty & Williams, 1998; Lightbown, 1998; Long & Robinson, 1998; Lyster, Lightbown & Spada, 1999; Schmidt, 1990; Schmidt, 2001), there is little emphasis on CF in the new approach in Algeria. That is, there is few mention of the notion of CF particularly oral CF in Algerian school handbooks or programs. In addition, Bouhadiba (2004) criticized the CBA applied in the teaching of foreign languages in Algeria in the sense that teachers following the instructions of the ministry in charge, have to use 'a new' method or an approach of which they know only little or nothing and for which they were not trained. Based on these facts, we wonder if Algerian teachers make use of CF in their classes. This refers to the importance and the necessity for training Algerian teachers of FFL on the use of this new approach and on the application of CF by presenting them the results and recommendations of the extant research. The importance of CF in SLA that has been put forward by many researchers (Doughty & Williams, 1998; Lightbown, 1998; Long & Robinson, 1998; Lyster, Lightbown & Spada, 1999; Schmidt, 1990; Schmidt, 2001) is exposed in the coming section.

### 1.3 Significance of CF in SLA

Since Corder's seminal work on the significance of learner errors (1967), researchers acknowledged that errors are inherent to the learning process and that they "are signals that actual learning is taking place" (Hendrickson, 1987, p. 357). However, researchers do not

seem to agree on whether or not errors should be corrected. While some argue against the importance of CF (Krashen, 1985; Schwartz, 1993; Truscott, 1996) others think that CF is necessary (e.g., Ammar & Spada, 2006; Lyster, 2004a). The debate about the importance of CF emerged from the controversy on the sufficiency of focusing on meaning and the necessity of focusing on form in L2 learning. The different SLA theories and hypotheses that fuelled this debate will be presented in the next section and the place of CF will be highlighted.

### 1.3.1 Comprehensible input is sufficient for SLA

In the 1980s, it was believed that focusing on meaning or exposing L2 learners to comprehensible input only was sufficient to acquire an L2.Comprehensible input is language input that can be understood by listeners despite them not understanding all of its words and structures (Krashen, 1985). This meant that CF and grammar teaching had no place in L2 classrooms. Krashen, whose beliefs are discussed below, is one of the advocates of this position.

#### *Krashen's Monitor model (1982, 1985)*

In his monitor model, Krashen (1985) argued that there are two modes of developing L2 competence: acquisition and learning. Acquisition is unconscious in terms of process and product in the sense that learners are not aware that they are learning the language and are unable to verbalise its rules when asked to. On the other hand, learning is conscious in terms of process and product, rendering it less important than acquisition. Acquiring a language occurs "only by exposing humans to meaningful messages i.e. rich comprehensible input" (p. 2). This comprehensible input should be a bit above the learners' current level of competence; that is, *i+1* (in which *i* stands for interlanguage). The term interlanguage was defined by Selinker (1972) as the separate linguistic system (including phonology, lexical, syntax and morphology) an adult second-language learner uses when attempting to ex-press meaning in a learned language (L2 or FL). Learners get this comprehensible input through reading and listening to meaningful messages produced. In order for comprehensible input to be processed in the language acquisition device leading eventually to acquisition, L2 learners should be placed in a learning environment conducive to a low affective filter (i.e., high motivation and positive attitudes). According to Krashen, the affective filter is "a mental block that prevents acquirers from fully

utilizing the comprehensible input they receive for language acquisition" (Krashen, 1985, p. 3). When learners are anxious, demotivated or constrained, their affective filter becomes elevated, blocking therefore the input from being processed in the language acquisition device. Given the negative impact grammar teaching and CF can have on the learner's affective filter, Krashen argues that, among other things, teachers should not react to their students' errors.

Terrell's (1977) 'natural approach'-which is a teaching method aiming to develop communicative competence- illustrates Krashen's input hypothesis. Similar to Krashen, Terrell denied the effectiveness of CF and grammar teaching. Terrell argued that CF is "negative in terms of motivation, attitude, [and] embarrassment" (p. 330). The communicative language teaching approachadopted in most L2 programs and notably in French immersion illustrates perfectly Krashen's Monitor Model. In its pure form, the communicative approach focuses on the communication of meaning and downplays the role of grammar teaching and CF (Swain, 1984). It uses communicative activities such as games, role plays, and group work in which the teacher acts as an input provider and avoids addressing learners' errors or non-target like uses of the language.

A number of studies have investigated the effectiveness of this approach by evaluating the interlanguage of communicative language teaching graduates in French immersion or intensive English programs in Canada (Harley & Swain, 1984; Lightbown & Spada, 1990, 1994; Lightbown, Halter, White, & Horst, 2002; Schmidt, 1983; Swain, 1984). These studies have revealed that even if students coming out of communicative programs develop high levels of fluency in terms of understanding and producing the L2, they still lack in language accuracy, making many morphosyntactic errors while speaking and writing (Harley & Swain, 1984; Lightbown et al., 2002; Lightbown & Spada, 1990, 1994; Schmidt, 1983; Swain, 1984). The learners' lack of accuracy has been taken as evidence of the insufficiency of comprehensible input for SLA (Doughty & Williams, 1998; Long, 1991, 1996; Long & Robinson, 1998; Spada, 1997; Swain, 1985; White, 1987). This position was supported by several psycho-cognitive and L2 hypotheses that emphasised the role of CF and grammar teaching in L2 learning.

### 1.3.2 Comprehensible input is not sufficient for SLA

Psycho-cognitive theories and L2 hypotheses have demonstrated the insufficiency of comprehensible input for SLA, and have suggested the need to draw learners' attention to the formal properties of the target language (e.g., Schmidt, 1990; VanPatten, 1996).

#### *1.3.2.1 Psycho-cognitive views in SLA*

Some psycho-cognitive hypotheses, most specifically Schmidt's noticing hypothesis (1990, 1995) and VanPatten's input processing hypothesis (1996), along with other SLA hypotheses, such as Swain's (1985) output hypothesis and Long's interaction hypothesis (1996) have proved that comprehensible input is insufficient and that teachers need to focus learners' attention on the formal properties of the target language.

***Schmidt's 'noticing hypothesis'***

Schmidt (1990, 1995) highlighted the importance of awareness in SLA. In his 'noticing hypothesis', he argued that for L2 acquisition to take place, a learner should notice the target language forms in the input and be aware of the mismatch between his/her interlanguage output forms (i.e., incorrect forms) and the alternative correct forms provided in the input. Schmidt (1995) considered noticing as the most important level of awareness and defined it as "conscious registration of the occurrence of some event" (p. 29) in which learners register consciously new forms in the input. Two types of noticing could be distinguished: noticing the form and noticing the gap. He claimed both are essential for learning. Noticing the form takes place in short term memory, and happens when a learner registers consciously a new form in the input (Schmidt, 1990). Once a new form is noticed, it is ready for processing, practice, modification and incorporation in long term memory.

Noticing the gap, on the other hand, is the result of learners' comparisons of their incorrect interlanguage forms with alternative correct forms in the input. While making this comparison, learners notice the gap between their interlanguage and the target language. Schmidt highlights the significance of noticing in L2 learning, in that "people learn about the things that they attend to and do not learn much about the things they do not attend to" (Schmidt, 2001, p. 30). Figure 1 presents a graphic illustration of Schmidt's noticing hypothesis.

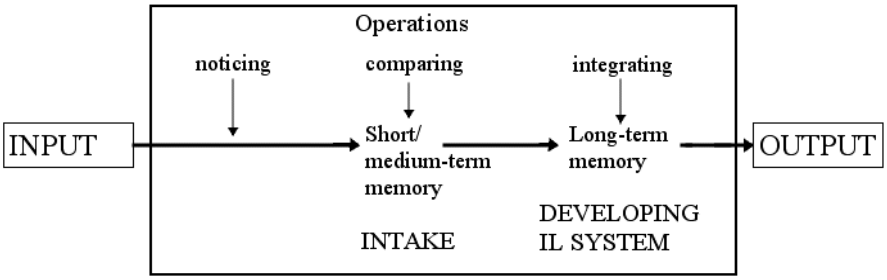


*Figure 1.* Noticing in the Process of Learning an L2 (Ellis, 1997)

Corrective feedback was proposed as a means to promote noticing language forms (Doughty & Williams, 1998; Lightbown, 1998; Long & Robinson, 1998; Lyster, Lightbown & Spada, 1999). In cases where learners fail to detect the difference between their incorrect interlanguage forms and the target language forms due to similarities in meaning between the two forms, "corrective feedback provides a potential solution to this problem, since it juxtaposes the learner's form *i* with a target language form *i+1* and the learner is put in an ideal position to notice the gap" (Schmidt, 1990, p. 313). Drawing learners' attention to the formal properties of the language was also advocated by VanPatten in his input processing hypothesis.

***VanPatten's 'input processing hypothesis' (1996)***

To reinforce Schmidt's claims about the insufficiency of comprehensible input in L2 learning, VanPatten (1996) highlighted the importance of attention in the learning process. In his 'input processing hypothesis', VanPatten claimed that during input processing, learners should make the right form-meaning connections to accomplish input comprehension (e.g., *her* means female). According to VanPatten, input processing happens when learners make links (connections) between grammatical forms and their meaning.

However, VanPatten (1996) claims thatL2 learners cannot focus their attention on meaning and form simultaneously during input processing, given that their attention is limited. As a result, L2 learners have a tendency to prioritize meaning and rarely attend to form, given that their comprehension is 'effortful' for the short-term memory. Attention to L2 forms is necessary for SLA to take place, and therefore, L2 teachers should draw the learners' attention to L2 forms, because learners cannot make these connections by themselves as they "are limited capacity processors and cannot process and store the same

amount of information as native speakers can during moment-by-moment processing" (VanPatten, 2007, p. 116). Hence, the question that emerges is; how can we trigger noticing and draw learner's attention to form? Corrective feedback, again, was proposed as a means to draw the learner's attention to the formal properties of language (Doughty & Williams, 1998; Lightbown, 1998; Long & Robinson, 1998; Lyster, Lightbown & Spada, 1999).

In addition to Schmidt and VanPatten, Swain (1985, 1995) and Long (1996) also argued against the sufficiency of comprehensible input. They highlighted the necessity of engaging L2 learners in production (output) and interaction activities.

*1.3.2.2 Comprehensible output and interaction in SLA*

Besides 'noticing' and 'attention to form', other processes are necessary to accomplish L2 learning. 'Comprehensible output' and 'interaction' have proven effective in L2 learning, in that they present an excellent context for noticing the gap and receiving CF (e.g., Long, 1996; Swain, 1995). The section below provides more details on Swain's 'output hypothesis' and Long's 'interaction hypothesis'.

***Swain's 'output hypothesis' (1985, 1995)***

Swain's (1985) study on Canadian immersion classes highlighted the importance of 'comprehensible output' in L2 learning. Results of this study showed that even if L2 learners developed fluency in using the target language, they still failed to achieve accuracy in terms of morphology and syntax. Swain attributed these results to the learners' limited opportunities to output (i.e., produce language). As a result, Swain argued against the sufficiency of comprehensible input and for the necessity of 'comprehensible output'.

According to Swain, output can solve the problem of lack of accuracy by making learners practice the target language. Indeed, output can promote noticing and interlanguage development; that is, via production "learners may notice a gap between what they want to say and what they can say, leading them to recognize what they do not know, or know only partially" (Swain, 1995, p. 125-126).

Furthermore, Swain (1985) argues that producing the target language is "the trigger that forces the learner to pay attention to the means of expression needed in order to successfully convey his or her own intended meaning" (p. 249). Finally, when L2 learners produce inaccurate output, this can give the chance to produce more comprehensible and

accurate output (i.e., modified output) through the provision of CF by native speakers (e.g., teachers) during interaction.

***Long's 'interaction hypothesis'***

In his 'interaction hypothesis', Long (1996) argues:

> ...negotiation for meaning, and especially negotiation work that triggers interactional adjustments by the NS or more competent interlocutors, facilitates acquisition because it connects input, internal learner capacities, particularly selective attention and output in productive ways. (p. 451-452)

Negotiation for meaning refers to discourse in which the participants try to make meaning more comprehensible in order to overcome communication breakdowns. In particular "...negotiation (…) triggers interactional adjustments by the NS..." (Long, 1996, p. 451). Different techniques like repetition, confirmation checks, clarifications requests and reformulations are used to negotiate meaning. These negotiation techniques are thought to increase the saliency of new forms, helping learners to notice and, thus, acquire them. Long argues that interaction affords opportunities to negotiate meaning, provides interactionally-adjusted comprehensible input, generates learner output, and provides opportunities for CF (e.g., recasts, clarification requests…etc).Stated simply, "the need to communicate may raise learners' awareness of language" (Long, 1996, p. 451). It is noted that interaction between learners and between a learner and a teacher – specifically when a learner shows signs of incomprehension – presents the suitable moment for CF to occur.

Both Swain (1985) and Long (1996) emphasised the importance of production and interaction in L2 learning because production helps learners to notice what they want to say but are unable to say in the L2 language (Swain, 1995). This is what Doughty and Williams (1998) referred to as noticing the 'hole'. Schmidt and VanPatten also accorded a great importance to noticing and attention in L2 learning. The question that emerges is how one can trigger this noticing and draw learner's attention to form. Form-focused instruction (FFI) has been proposed as a means to draw learners' attention to the formal properties of the L2 (Doughty & Williams, 1998; Lightbown, 1998; Long, 1991, 1996; Norris & Ortega, 2000; Spada, 1997).

### 1.3.3 Form-focused instruction

Form- focused instruction can be defined as "any pedagogical effort which is used to draw the learners' attention to language form either implicitly or explicitly. This can include the direct teaching of language (e.g. through grammatical rules) and/or reactions to learners' errors (e.g., corrective feedback)" (Spada, 1997, p. 73).

Besides integrated grammar teaching, CF, the reactive component of form-focused instruction, is another way learners' attention can be drawn to the formal properties of the target language (Doughty & Williams, 1998; Lightbown, 1998; Long & Robinson, 1998; Lyster, Lightbown & Spada, 1999). Lightbown and Spada (1999) defined CF as "any indication to the learners that their use of the target language is incorrect" (p. 171).

Schmidt's initial claims that CF may offer a chance for learners to notice the gap between their interlanguage forms and the L2 norm are supported by a number of empirical studies reporting the beneficial effects of CF on L2 learning (Ammar & Spada, 2006; Lightbown & Spada, 1990; Lyster, 2004a; Spada & Lightbown, 1993; White, 1991; see the meta-analysis by Lyster & Saito, 2010).

### 1.3.4 Corrective feedback

Corrective feedback has been the subject of empirical research since the mid 1990s and a substantial body of research has investigated CF in and out of classroom contexts. A range of this research investigated the different CF techniques teachers and native speakers use. Results obtained from this group of research revealed that recasts (reformulation of a learner's utterance by replacing erroneous forms by correct ones) are the most frequent CF type in both L2 and foreign language contexts (Lewis & Morgenthaller, 1989; Lyster & Ranta, 1997; Lyster, 1998a, 1998b; Panova & Lyster, 2002; Pica, Holliday, Sheen, 2004; Suzuki, 2004a). Other CF studies looked at the effects of CF on L2 acquisition. Among other things, results of this research indicated that CF facilitates L2 learning (Lyster & Saito 2010; Mackey & Goo, 2007; Russell & Spada, 2006) and that prompts (i.e., pushing a learner to correct his/her erroneous forms) are more effective than recasts (Ammar, 2008; Ammar & Spada, 2006; Lyster, 2004a).

Yet, the extant research on CF has overlooked the role of teachers' beliefs about the role and place of this reactive form-focused instructional technique. Teachers' beliefs are, however, an important element to take into account while talking about L2 teaching and

CF, in that a teacher who does not believe in the effectiveness of CF would not automatically provide it. Hence, investigating teachers' beliefs in relation to CF seems necessary and important. The coming section provides more insights on the importance of teachers' beliefs, its relationship to CF and the ways of developing teachers' beliefs about L2 teaching and CF.

### 1.4 Developing Teachers' Beliefs about L2 Teaching and CF

Teachers' beliefs have influenced a wide range of studies since the mid-1980s. This growing interest could be attributed to the fact that several studies had arrived at the conclusion that "we cannot properly understand teachers and teaching without understanding the thoughts, knowledge, and beliefs that influence what teachers do" (Borg, 2009a, p. 163). That is to say, teachers' reported beliefs "provide insight into the workings of teachers' minds" (Borg, 2006, p. 280). Furthermore, it has been argued that:

> To the extent that observed or intended behavior is "thoughtless", it makes no use of the human teacher's most unique attributes. In so doing it becomes mechanical and might well be done by a machine. If however, teaching is done, and in all likelihood will continue to be done by human teachers, the question of relationships between thought and action becomes crucial. (Conference of NIE, 1975, p. 1)

This means that teacher beliefs influence and guide their practices, as recognized by several researchers (e.g., Bastukmen, Loewen & Ellis, 2004; Pajares, 1992).That is, "any method is going to be shaped by a teacher's own understanding, beliefs, style, and level of experience" (p. 4). Besides influencing what a person does, beliefs also are considered to influence what a person knows and feel (Rokeach, 1968).

Because of the above reasons, teachers' beliefs have become a significant area of research. The last 15 years have witnessed a steady increase in the number of studies that have examined teacher beliefs about L2 teaching and learning (Phips & Borg, 2009). This includes both descriptive and experimental studies examining different issues about teacher beliefs, such as the nature of teacher beliefs (e.g., Horwitz, 1985; Johnson, 1992) and the relationship between beliefs and practices (Borg, 2003a, 2006; Hassan, 2011; Johnson, 1992; Pajares, 1992; Phipps & Borg, 2009). Conversely, studies that investigated teachers' beliefs in relation to CF are rare and purely descriptive (Basturkmen et al., 2004; Hassan,

2011; Kamijo, 2004; Kartchava, 2006; Mori, 2002; Schulz, 2001). These studies had only described and explained beliefs, without trying to evaluate the extent to which they can be developed through teacher education programs, training courses and practicums using L2 research findings. That is why Bruner (1996) argued that teacher education courses should target student teacher beliefs since any new information provided needs to "compete with, replace or otherwise modify the folk theories that already guide them" (p. 46). Hence, identifying and understanding teachers' beliefs before training programs start and targeting them may eventually help develop these beliefs (Basturkmen, Lowen & Ellis, 2004; Hassan, 2011; Kagan, 1992a; Kalaja & Barcelos, 2003; Pajares, 1992).

On the other side, teachers' beliefs could influence students' learning too. That is to say, teachers' beliefs influence teachers' practices, which in turn influence students' learning. To illustrate, take an example of a communicative L2 teacher who does not believe in the importance of CF and integrated grammar teaching during communicative activities. This teacher would not use/adopt these form-focused instructional methods, and in not doing so, it would be difficult for L2 learners to learn about L2 forms, especially when they make different sorts of errors such as grammatical, lexical and phonological. Thus, how would these L2 learners develop the language accuracy reported in the studies of scholars such as Harley and Swain (1984), Lightbown et al. (2002), Lightbown and Spada (1990, 1994), Schmidt (1983), and Swain (1984)? In order for these L2 learners to develop their language accuracy, the teacher must believe in and practice either integrated grammar teaching or CF. One way of doing so is to train teachers through teacher education programs or training courses about the advantages of integrated grammar teaching and CF. This would help teachers develop their beliefs, consolidate them, integrate new beliefs and or change their initial beliefs. As such, the goal of the current study is to try to develop teachers' beliefs about CF, especially that L2 studies that tried to develop teachers' beliefs through teacher education programs, training courses and practicums are relatively scarce, particularly CF studies. Hence, the next section describes the objectives of this study.

### 1.5 General Objective of the Study

As seen above, several descriptive studies have explored the distribution of the different CF techniques (Lyster & Ranta, 1997, Panova & Lyster, 2002, Sheen 2004). These studies have found that L2 teachers mostly use recasts, and rarely use prompts in

correcting their students' errors. On the other hand, empirical studies have shown that some techniques are more effective than others in promoting of L2 learning. Ammar and Spada (2006) and Lyster (2004a), for example, demonstrated that prompting learners to produce the correct form is more effective than reformulating their errors. This kind of research always ends by recommending the use of techniques that proved to be most effective for L2 learning (i.e., prompts).Given that these recommendations oppose teachers' daily CF practices (i.e., recasts), we wonder if all L2 teachers use the recommended techniques (i.e., prompts), and particularly, the extent to which it is possible to develop or change L2 teachers' about CF in general and CF techniques more specifically.

Second language studies that addressed teachers' beliefs about CF are very rare. This body of research is mostly exploratory and descriptive (Basturkmen et al., 2004; Hassan, 2011; Kamijo, 2004; Karchava, 2006; Mori, 2002; Suzuki, 2004; Schulz, 2001). That is, it has seldom tried to see if the teachers are able to adopt what is recommended in CF research, especially if this may not correspond to their beliefs and practice such as using recasts. That is, empirical studies that tried to develop/change teachers' beliefs in relation to CF are very scarce (Baleghizadeh & Rezaei, 2010; Brown and McGannon, 1998; Bush, 2010; Kamiya & Loewen, 2014; Kerekes, 2001; Peacock, 2001; Vasquez & Harvey, 2010). As CF is proved effective for L2 learning, and as teachers' beliefs guide their practices such as CF practices, our objective is the following:

General objective: determine the effects of teacher training on teachers' beliefs about oral corrective feedback.

# CHAPTER 2: THEORITICAL FRAMEWORK AND LITTERATURE REVIEW

This study is motivated by the need to explore Algerian pre-service teachers' beliefs about CF. As mentioned earlier in this paper, CF is proved helpful for L2 learning, and as teachers' beliefs guide their practices, our objective is to try to develop Algerian pre-service teachers' beliefs about CF by means of a teacher training course. This chapter reviews the research constructs and the empirical literature related to this research objective. First, definitions of CF and its types are presented together with descriptive and empirical research about CF. Second, definitions of teacher cognition and teachers' beliefs are provided together with the factors affecting the development of teachers' beliefs. Third, the link between teachers' beliefs and CF is presented through research on the subject. After that, the importance of teacher training and the concept of teacher education are introduced. Fourth, the debate on the possibility to change teachers' beliefs is presented together with reasons for resistance in teachers' beliefs, strategies to change these beliefs and types of change in beliefs if any. Then, empirical studies on the effects of teacher training programs on teachers' beliefs are presented for the of domains; mathematics and L2 learning. After that, approaches used to report on teachers' beliefs are presented with emphasis on research tools used in the current study. Finally, the research questions are presented.

## 2.1 Corrective Feedback Research

Corrective feedback is a means to draw learners' attention to the formal properties of a language (e.g., Doughty & Williams, 1998; Norris & Ortega, 2000; Spada, 1997). According to Carroll and Swain (1993), CF includes all reactions which explicitly or implicitly mention that the production of a learner is erroneous (i.e., non-target like). In 1997, Lyster and Ranta conducted a descriptive study on the distribution of different feedback techniques, their frequency, and the uptake that occurs in reaction to teachers' feedback. Six main CF techniques were identified which could be employed by L2 language teachers: explicit correction; recasts; clarification requests; metalinguistic feedback; elicitation; and repetition.

**Explicit feedback.** As shown in example 1, the teacher clearly indicates that the student's utterance (production) is incorrect by providing the correct form.

Example 1

St: * Yesterday, my teacher gives me a book.

T: No, you should say gave. Yesterday my teacher gave me a book.

**Recasts.** The teacher reformulates the learner's utterance, replacing his/her error by the corresponding correct form (see example 2).

Example 2

St: * Yesterday, my teacher gives me a book.

T: He gave you a book.

**Clarification requests.** The teacher indicates to the learner that his rendition contains some kind of error and that a repetition or a reformulation is recommended. In this CF type a teacher may use phrases like "I don't understand" and "excuse me?" (see example 3)

Example 3

St: * Yesterday, my teacher gives me a book.

T: I don't understand?

**Metalinguistic feedback.** As illustrated in example 4, the teacher indicates the presence of an error by providing verbal and linguistic clues inviting the learner to self-correct (e.g., "Do we say it like that?", or "Its masculine").

Example 4

St: * Yesterday, my teacher gives me a book.

T: Do we say give?

T: Do we say give when it is in the past?

**Elicitation.** The teacher elicits the correct form from learners by using questions like "How do we say that in English?"; by pausing to elicit completion of learners' utterances as in example 5; or by asking learners to reformulate their utterances like "can you repeat?".

Example 5

St: * Yesterday, my teacher gives me a book.

T: Yesterday your teacher……

**Repetition.** The teacher repeats the learners' erroneous forms and adjusts intonation on the error to draw attention to the incorrect form as in example 6.

Example 6

St: * Yesterday, my teacher gives me a book.

T: Yesterday, my teacher give*s*? (Rising intonation on the erroneous past)

Of the six CF techniques outlined above, both reformulations and explicit feedback can be classified as input providing – the correct form is provided by the teacher. In the cases of repetition, metalinguistic feedback, elicitation and clarification requests, they can be considered as output eliciting as the teacher withholds the correct form and pushes the learner to self-correct. Output-eliciting techniques are referred to as 'negotiation of form' techniques in Lyster and Ranta (1997) and as prompts in Lyster (2004a).

In general, three issues have been investigated in relation to CF research. The first is the identification and the distribution of CF techniques and the resultant uptake (learner's immediate response to the teacher's CF) (Chaudron, 1977; Lyster, 1998b; Lyster

& Ranta, 1997; Nishita, 2004; Panova & Lyster, 2002; Sheen, 2004; Suzuki, 2004). The second focus is on the noticeability of the feedback techniques (Mackey, 2006; Mackey, Mc-Donough, Fujii & Tatsumi, 2001; Mackey, Gass & McDonough, 2000; Philp, 2003; Trofimovich, Ammar & Gatbonton, 2007). A third issue concerns the effects of the different feedback techniques on L2 learning (Ammar & Spada, 2006; Carroll & Swain, 1993; Dekeyser, 1993; Ellis, Loewen & Erlam, 2006; Ellis & Sheen, 2006; Kubota, 1994; Lyster, 2004; Mackey & Philp, 1998).

### 2.1.1 Research about types of feedback and their distribution

In their study about CF in a French immersion setting, Lyster and Ranta (1997) observed four teachers and their respective 104 students in grades four and five for 18.3 hours (one hour per day). Transcripts of the18.3 hours of classroom interaction were analysed for feedback types and learner uptake. Results indicated that recasts were the most frequently used type of CF (55% of the time) but were the least likely to lead to uptake (31%). In contrast, prompts (elicitation, clarification requests, metalinguistic feedback, and repetition), which pushed the learner to self-correct, led to the highest amounts of uptake (100%, 88%, 86%, and 78%, respectively) despite their limited frequency of use (11%, 8%, 14%, and 5%, respectively). Similar results have been obtained by Panova and Lyster (2002), who addressed the same research questions, but in adult English as L2 classrooms (ESL). Furthermore, Sheen (2004) compared the occurrence of CF techniques across four different contexts, namely French immersion, ESL in Canada, ESL in New Zealand, and English as a foreign language in Korea. Results indicated that the different CF techniques have comparable frequencies of occurrence. The exception was for recasts in New Zealand and Korea. Recasts were found to be more frequent in these contexts. Results derived from this group of research revealed that recasts are the most frequent technique L2 teachers used in their classes, but they are the least likely to lead to uptake. Prompts are scarcely used in L2 classes, but they lead to higher amounts of uptake.

Apart from identifying different CF types and their distribution in L2 classrooms, some descriptive studies examined the distribution of the CF techniques in relation to grammatical, phonological and lexical error types (e.g., Lyster, 1998b; Nishita, 2004; Suzuki, 2004).

Using data from Lyster and Ranta (1997), Lyster (1998b) examined the relationship between error type and CF type. Data included transcripts of 18 hours of interaction extracted from 27 recorded lessons in four immersion classroom at the primary level. Data were analysed using a schema that was developed to analyse teacher-student interactions which included error types as well as feedback types. Results showed that teachers showed a tendency to use prompts to correct lexical errors (55% of the time), and recasts to correct phonological and grammatical errors (64% and 72% of the time, respectively). Given that prompts were found to lead to more uptake than recasts Lyster recommended the use of prompts rather than recasts with grammatical errors because prompts push learners to produce output and are more likely to lead to noticing and to promote learning. Similar results were obtained by Suzuki (2004). Table 3 summarises descriptive CF research along with their objectives and results.

Table 3

*Research about Types of Feedback and their Distribution*

| Objective | Studies | Results |
|---|---|---|
| Identify CF techniques, their frequency, and the uptake which resulted. | Lyster and Ranta (1997)<br>Panova and Lyster (2002)<br>Sheen (2004)<br>Suzuki (2004) | ➢ Recasts are the most frequently used technique that gives little uptake.<br>➢ Prompts are rarely used in L2 classes; however, they generate high uptake rates. |
| Examine the distribution of the CF techniques in relation to error types (i.e., grammatical, phonological and lexical). | Lyster (1998b)<br>Suzuki (2004) | ➢ Recasts are mostly used with grammatical and phonological errors.<br>➢ Prompts are mostly used with lexical errors. |

The descriptive research findings reported above gave rise to numerous studies that set out to compare the noticeability and effectiveness of different CF techniques. This research is presented in the following section.

### 2.1.2 Research about the noticeability and effectiveness of CF

Based on Schmidt's noticing hypothesis in which he stipulates that learners learn what they notice, few studies investigated the noticeability of CF (Egi, 2007; Mackey, Gass & McDonough, 2000; Mackey & Oliver, 2002; Philp, 2003; Trofimovich et al., 2007).

Mackey et al. (2000) for example investigated learners' perception of CF using stimulated recall protocol. Ten adult ESL learners and seven English L1 university learners of Italian participated in this study. Students were videotaped during task-based dyadic interaction with a native speaker, and they watched the tape and recalled how they had perceived the feedback provided during the interaction. Corrective feedback targeted morphosyntaxic, lexical and phonological errors. Results indicated that learners' noticing of CF depends on the type of error. learners had noticed the CF targeting lexical (83.3%) and phonological (60%) errors, however, they hardly noticed feedback targeting morphosyntax (13%). Furthermore, most native speakers interlocutors chose recasts to correct students' errors especially morphosymtaxic errors. The native speakers used recasts for correcting students' morpho-syntactic errors (75% of recasts corrected errors in morphosyntax); while they rarely used negotiations for these types of errors (7% of negotiations corrected errors in morphosyntax).

Other studies that investigated the noticeability of CF did so in relation to individual differences. For instance, Philp (2003) explored the factors that affect learners' noticing of recasts, such as recasts length, number of errors, and learner's proficiency level. Participants were 33 adult ESL learners in an Australian university, and three native speaking interlocutors. Learners were divided into three groups based on their language proficiency level, that is; high, intermediate and low proficiency levels. Learners performed a set of tasks with the native speakers, such as a story completion and picture-drawing tasks. During the tasks, feedback in the form of recasts was provided by the native speakers in response to learners' non target-like structures. The results revealed that higher and intermediate level learners noticed recasts (70%) significantly more than lower level learners (60%). Furthermore, Philp found that irrespective of the learner level, shorter

recasts were more noticeable than long recasts. However, Philp found that recasts with more than three changes were less noticeable by all proficiency level learners. That is, recasts that corrected one single error were more noticed than recasts that targeted multiple errors.

There is also Trofimovich et al. (2007) who were also interested in the noticing of recasts in relation to individual differences such as analytical ability, phonological memory, working memory, and attention control. Results showed no relationships between the different individual differences and noticing. Results showed also that recasts targeting lexical errors led to higher learning rates than recasts pointing to morphosyntactic errors. Learner beliefs were another variable that was found to mediate the noticing of CF (Kartchava, 2012). Kartchava investigated the relationship between beliefs about CF of high-beginner college level ESL learners (n= 99) and noticing. Specifically, she aimed to (1) examine the noticeability of three CF techniques (namely, recasts, prompts, a combination of the two) in relation to two grammatical targets (i.e., past tense and questions in the past), and (2) to determine whether learner beliefs about CF mediate what is noticed in the language classroom. Noticing of CF was measured through immediate recall and questionnaire responses, and learner beliefs about CF were explored using a 40-item questionnaire. The results indicated that the noticeability of CF depends on the grammatical target it addresses (i.e., feedback on past tense errors was noticed more) and that the feedback techniques that push learners to self-correct alone or in combination with target exemplars are more effective in bringing out the corrective intent of a feedback move. It was found also that in relation to CF beliefs, the learners' responses can be grouped according to four general themes (the importance of CF, recasts as CF technique, prompts as CF technique, and affective consequences of CF).

To summarize, in terms of noticing, recasts that target morphosyntactic errors are not easily noticed, compared to recasts that target lexical and phonological errors which are easily noticed (Mackey et al., 2000). In addition, low proficiency level learners notice recasts less than high and intermediate proficiency level learners (Philp, 2003). Furthermore, no relationships were found between the different individual differences (i.e., analytical ability, phonological memory, working memory, and attention control) and noticing. Table 4 sums up the research about the noticing of CF techniques.

Table 4

*Research about the Noticing of CF Techniques*

| Objective | Studies | Results |
|---|---|---|
| Investigated learners' noticing of CF techniques | Mackey et al.(2000) | Learners are more likely to notice recasts on lexical rather than morphosyntactic errors. |
| | Mackey and Oliver (2002) | Noticing of recasts is affected by the following factors: learner's proficiency level; phonological memory; attention control; and, analytical ability. High proficiency level learners and those having high phonological memory, efficient attention control, and strong analytical ability are more likely to notice recasts. |
| | Philp (2003) | |
| | Egi (2007) | |
| | Trofimovich et al. (2007) | Noticing of recasts is affected by its saliency; that is, explicit recasts (i.e., short and/or with one modification, and isolated) are more easy to be noticed than implicit recasts (long and/or with several modifications, and integrated) |

Apart from research that looked at noticing, a number of studies compared the effects of CF techniques (e.g., Ammar & Spada, 2006; Ammar, 2008; Dilans, 2010; Goo, 2012; Loewen & Erlam, 2006; Loewen & Philp, 2006; Lyster, 2004; Lyster & Ezquierdo, 2009; Nassaji, 2009; Yang & Lyster, 2010; Zhuo, 2010). As an example, Lyster (2004) compared the effects of form- focused instruction, recasts, prompts and no feedback for the acquisition of French grammatical gender. Participants were 179 immersion students and four teachers from eight classes in Montreal. Lyster found that prompts were more effective when combined with form focused instruction than with recasts or no feedback for learners' acquisition of French grammatical gender.

Using an experimental design, Ellis et al. (2006) investigated the effects of recasts (implicit feedback), metalinguistic feedback– a kind of prompts- (explicit feedback), and

no feedback on the acquisition of the English past tense morpheme, *-ed*. Acquisition was measured by several tests such as metalinguistic knowledge test and untimed grammaticality judgment test. The tests were administered prior to the instruction, one day after the instruction, and two weeks later. Results revealed that compared to recasts, metalinguistic feedback was more effective at promoting learning of the target structure. This study added support to the superiority of explicit feedback (prompts) over implicit feedback (recasts). Similar results were found by Ammar and Spada (2006), Ammar (2008), Dilans (2010), Lyster (2004), and Yang and Lyster (2010).

In a pretest-posttest control group design study, Zhuo (2010) compared the effects of implicit and explicit recasts on the acquisition of English noun plural. Participants were 63 Chinese ESL primary school six grade students. They were randomly assigned to an implicit recast group, an explicit recast group or a control group. Implicit recasts "refer to reformulations of the students' incorrect renditions with no additional linguistic, verbal or intonational clues" (Taddarth, 2010, p. 37), while explicit recasts make use of additional linguistic, verbal or intonational clues and/or isolate the error by reformulating it out of its larger context. Below, examples (adapted from Taddarth, 2010, p. 37) of each recast type are provided.

Example 1 (implicit recasts)

Student: *I go to the cinema last week

Teacher: You went to the cinema last week, good

Teacher: You went to the cinema last week, and which film did you watch?

Example 2 (explicit recasts)

Student: *I go to the cinema last week.

Teacher: you went (rising intonation on went)

Teacher: went (with or without rising intonation)

During the pedagogical treatment, participants received either implicit recasts, explicit recasts or no feedback for the target form errors. Participants' acquisition of the

target feature was measured using a grammatical judgment test and a metalinguistic knowledge test. Results revealed that explicit recasts are more effective than implicit recasts and no feedback in promoting L2 learning. Similar results were found by Loewen and Philp (2006), and Nassaji (2009).

Lyster and Izquierdo (2009) compared recasts (without modified output opportunities) with prompts (clarification requests, followed by repetition) in terms of their effects on the learning of French grammatical gender. Unlike the above studies, both recasts and prompts were found to be effective to learning the target structure, with no statistical difference between the two, as in Goo (2012). Table 5 recapitulates studies about the effectiveness of CF techniques.

Table 5

*Studies about the Effectiveness of CF Techniques*

| Objective | Studies | Results |
|---|---|---|
| Investigated the effects of CF in general and compared the effects recasts and prompts | Lyster (2004)<br><br>Ellis, Loewen and Erlam (2006)<br><br>Ammar and Spada (2006)<br><br>Ammar (2008)<br><br>Yang and Lyster (2010)<br><br>Dilans (2010) | ➢ Corrective feedback improves L2 learning.<br><br>➢ Prompts are more effective than recasts for L2 learning. |
| Investigated the | Loewen and Philp | ➢ Interrogative recasts, shorter recasts, |

| | | |
|---|---|---|
| effects of implicit and explicit types of recasts and prompts | (2006)<br><br>Zhuo (2010)<br><br>Nassaji (2009) | and recasts with only one changeare more effective than implicit recasts.<br>➢ Explicit subtypes of recasts and elicitation are more effective than implicit subtypes. |
| Compared the effects of recasts and prompts | Lyster and Izquierdo (2009)<br><br>Goo (2012) | ➢ Recasts are effective as prompts (no statistical difference between the two) |

A group of studies that looked at the effects of feedback techniques tried to do so in relation to learner individual differences (Ammar & Spada, 2006; Goo, 2012; Mackey & Philp, 1998; Trofimovich et al., 2007).

Mackey and Philp (1998), for example, explored the effects of recasts on the short-term acquisition of question forms in ESL. Thirty five adult ESL learners attending two private language schools in Australia participated in this study which used a pretest- 3 posttests control group design. Participants were placed randomly into three groups: recast, interactor, and control. While performing the tasks in pairs with a native speaker, the recast group received recasts on their erroneous question forms. The interactor group carried out the same tasks during the treatment but without receiving recasts. The control group participated only in pre- and post-tests. Analysis of the results showed that the recast group outperformed the other groups on question development. Moreover, it was found that learners' developmental level predicted learners' learning of the target language form. That is to say, advanced learners were those who most profited from recasts.

In a quasi-experimental study that used a pretest-posttests design, Ammar and Spada (2006) investigated the effects of recasts and prompts in relation to learner proficiency level. Participants were 64 students in three grade 6 ESL classes. They were assigned to a recast group, a prompt group, or a control group. The pedagogical treatment targeted third person possessive determiners *his* and *her*, in which teachers of the three groups provided either recasts, prompts or no feedback. During the pretest, immediate

posttest, and delayed posttests, students' learning of the target feature was measured through oral and written tasks. Results showed that the two experimental groups outperformed significantly the control group, with the prompts group surpassing significantly the recasts group. Results also revealed that the effects of the two techniques (i.e., recasts and prompts) depend on the learner's proficiency level. That is to say, "high-proficiency learners benefited equally from both prompts and recasts, whereas low-proficiency learners benefited significantly more from prompts than recasts" (p. 543).

Effects of feedback techniques were found to be related to other individual differences like phonological memory, analytical ability, working memory, and attention control (e.g., Trofimovitch et al. 2007; Mackey & Goo, 2007). However, it is worthy to mention that Trofimovitch (2007) looked at noticing and learning.

The results of this pool of research indicated the superiority of prompts over recasts, in terms of L2 learning (Ammar & Spada, 2006). In addition, these studies have shown that the effects of CF techniques depend on several individual differences such us, learner's level; that is, advanced level learners are likely to benefit from both recasts and prompts, whereas beginners tend to benefit only from prompts, but not recasts (Ammar & Spada, 2006). In addition, Mackey and Philp (1998) found that advanced learners were those who most profited from recasts. Table 6 presents research about the effectiveness of CF techniques in relation to individual differences.

Table 6

*Research about the Effectiveness of CF Techniques in Relation to Individual Differences*

| Objective | Studies | Results |
|---|---|---|
| Investigated the effects of CF techniques in relation to learners' individual differences. | Mackey and Philp (1998)<br><br>Ammar and Spada (2006)<br><br>Trofimovich et al. (2007) | ➢ Effects of the CF techniques depend on the learner's proficiency level. High-proficiency level learners tend to benefit from both recasts and prompts, whereas, low-proficiency learners benefit from prompts only.<br>➢ The effects of recasts depend on learners' individual differences such as attention and memory. |

### 2.1.3 Research about the moment and frequency of CF

A number of theoretical studies explored and debated different issues about CF such as the moment and frequency of CF. In relation to the moment of providing CF, there is a debate between language researchers and experts on immediate and delayed use of CF. Courtillon (2005)-who is one of the advocates of the communicative approach- claimed that for CF to be fruitful, the correction should be made outside the production phase, i.e., (delayed correction). She explains that this method is beneficial because it promotes communication. Krashen and Terrell (1983) and Lightbown (1998) share the same view as Courtillon and added that, when necessary, CF should be provided at the end of the course. However, recent researches went against delayed CF and favoured immediate CF. For instance, Beefun (2001) and Lightbown and Spada (2006) claimed that CF should be provided immediately when the error has occurred.

Concerning the frequency of providing CF, Damoiseau (1970) argued that if the teacher intervenes each time to correct pronunciation and language errors, that would be the best way to block communication. Hence, the teacher could not correct all the errors that occurred during the communication, and in turn should have an errors selection strategy based on frequency (Bolton, 1987). That is, only common and recurring errors harmful to the verbal exchange must be targeted (Bolton, 1987; Long, 1996; Philp, 2003). In addition, some educationalists such as Purin, Bertocchini and Costanzo (1998) say that "we must constantly modulate attention to the form (linguistic correction) and attention to the sense (the communication) according to the objective of the course, the activity and earner motivation, and thus correct in a selective manner" (p. 40).

### 2.1.4 Summary

Based on the above critical analysis of the factors affecting the use of CF in L2 classrooms, several considerations and variables have emerged from descriptive, empirical and theoretical research. The above studies targeted the following issues in relation to CF: 1) identification of the CF techniques and their frequency; 2) examining the distribution of the CF techniques in relation to error types (i.e., grammatical, phonological and lexical); 3) investigation of learners' noticing of the CF techniques; 4) investigation of the effects of CF in general, and a comparison of the effects of specific feedback techniques; 5) investigation of the effects of the CF techniques in relation to learners' individual differences such as proficiency level; and 6) exploration of the debates about the moment

of providing CF (immediate versus delayed CF) and the frequency of classroom correction (systematic versus selective CF).

Investigations into the six aforementioned issues found that six CF techniques could be identified in L2 classrooms. These include recasts, explicit correction, and four types of prompts (elicitation, clarification requests, metalinguistic feedback, and repetition), all of which push learners to correct their errors. Recasts are recognized as the most frequently used technique that leads to the least amount of uptake, noticing, and learning in L2 classes. Prompts are rarely used by L2 teachers; however, when they are, they generate high rates of uptake, noticing and L2 learning. Furthermore, recasts are mostly used with grammatical and phonological errors while prompts are mostly used with lexical errors. Finally, the theoretical debate favoured immediate CF over delayed CF, and selective CF over systematic CF. Teachers should correct recurrent errors that interfere following the objective of the activity or the course.

Based on these findings, several variables should be considered while investigating CF in L2 classrooms. These variables are: importance of CF; moment of providing CF; error type; learner's proficiency level; frequency in providing CF; and best CF technique in general. Table 7 points out and organises the variables to consider while investigating CF in L2 classrooms, together with research suggestions in relation to these variables.

Table 7

*Variables to Consider while Investigating CF in L2 Classrooms*

| Variables | Research suggestions in relation to these variables |
|---|---|
| Importance of CF | Corrective feedback is effective for L2 learning (Ammar & Spada, 2006; Ammar, 2008; Dilans, 2010; Ellis, Loewen & Erlam, 2006; Lyster, 2004; Yang & Lyster, 2010) |
| Moment of providing CF | Corrective feedback should be provided immediately when the error has occurred (Beefun, 2001; Lightbown & Spada, 2006) |

| | |
|---|---|
| Error type | Recasts are mostly used with grammatical and phonological errors while prompts are mostly used with lexical errors (Lyster, 1998b; Suzuki, 2004) |
| Learner's proficiency level | High-proficiency level learners benefit from both recasts and prompts, while low-proficiency learners benefit only from prompts (Ammar & Spada, 2006; Mackey & Philp, 1998) |
| Frequency in providing CF | Only common and recurring errors harmful to the verbal exchange must be targeted (Bolton, 1987; Long, 1996; Philp, 2003) |
| Teachers' technique of choice | Prompts are more effective than recasts for L2 learning (Ammar & Spada, 2006; Ammar, 2008; Dilans, 2010; Ellis, Loewen & Erlam, 2006; Lyster, 2004; Yang & Lyster, 2010) |

Teachers' beliefs about CF are as important as their CF practices, in that teachers' beliefs in general influence and guide their classroom practices (Borg, 2003a, 2006; Hassan, 2011; Johnson, 1992; Pajares, 1992; Phipps & Borg, 2009). It follows that investigating teachers' beliefs in relation to CF becomes crucial as CF is proved effective for L2 learning. The coming section provides more insights on the importance of teachers' beliefs in general, and its relationship to L2 teaching and CF.

### 2.2 Teacher Cognition and Beliefs

Teachers' cognition which started to interest researchers in the 1970s and intensified since the 1980s is defined by Borg (2003a) as the "unobservable cognitive

dimension of teaching – what teachers know, believe and think" (p. 81). By themid-1980s, teacher beliefs, in particular, became a popular topic of research. The following section provides a clarification of the concept of teacher beliefs.

Crahay, Wanlin, Issaieva and Laduron (2010) argued that the majority of empirical studies targeting what teachers think and believe about the act of teaching and learning were published in Anglophone surveys in which the term beliefs is prioritised. Researches done in French sometimes translated beliefs as 'croyances', however, the term 'représentations' is the most commonly used in the French literature. Crahay et al. added that a myriad of terms like personal theories, perspectives, conceptions, preconceptions, implicit theories, perceptions, attitudes, dispositions are used in the English and French literature to refer to the concept of beliefs. In this study the term beliefs will be retained.

Besides using different terminologies to refer to beliefs, different definitions were also proposed for the concept of 'teacher beliefs'. Pajares (1993), for instance, defines pre-service teachers' beliefs as "the attitudes and values about teaching, students, and the education process that students bring to teacher education—attitudes and values that can be inferred by teacher educators not only from what pre-service teachers say but from what they do" (p. 46). Whereas, Kagan (1992a) defines teacher belief as "a particularly provocative form of personal knowledge that is generally defined as pre- or in-service teachers' implicit assumptions about students, learning, classrooms, and the subject matter to be taught." (p. 65-66). In this study, I retain this definition of teachers' beliefs "statement teachers made about their ideas, thoughts and knowledge that are expressed as evaluations of what 'should be done', 'should be the case', and 'is preferable'" (Bastukmen et al. 2004, p. 244). Lack of consensus for using a single term to refer to teachers' beliefs as well as for finding a common definition to this concept is probably due to its overlapping with other cognitive concepts like knowledge. That is why Allen (2002) argued that "it is difficult to pinpoint where knowledge ends and beliefs begin" (p. 519). The concept of knowledge has been discussed and debated widely in relation to beliefs (Ashari, 1994; Borg, 2003a; Kagan, 1990; Nespor, 1987; Raths & McAninch, 2003). This discussion resulted in two positions: some have made a clear distinction between beliefs and knowledge, while others have assumed that these two cognitive concepts are the same. As an example, Raths and McAninch (2003) distinguish between the two concepts stating that the concept of knowledge is related to truth, while the concept of belief does not stand for truth. The reason might be that beliefs are personal, and considered true only for the

believer, and hence might be false for another, whereas knowledge is not personal and it is normally shared by a group of people. Likewise, Ashari (1994) differentiates between knowledge and beliefs explaining that two teachers may have equivalent knowledge about English grammar but different beliefs about how grammar should be taught. Nespor (1987) further explained the difference between beliefs and knowledge by outlying four definitional characteristics of beliefs; (a) beliefs are based on assumptions; (b) beliefs are affective and not cognitive; (c) beliefs are based on the 'apprenticeship of observation' and (d) beliefs represent ideal alternative situations. That is, beliefs are influenced by experiences, observation, and feelings (Rokeach, 1970).

On the other hand, some researchers assume that these two concepts (i.e., beliefs and knowledge) are indistinguishable. In his definition of teacher cognition, Kagan (1990) used the two terms interchangeably, and as a result he defined teacher cognition as "any of the following: pre/in-service teacher's self-reflections, beliefs and knowledge about teaching, students, and content and awareness of problem solving endemic to classroom teaching" (p. 421). Based on similar arguments, Borg (2003a) expressed preference for the use of the more general term 'teacher cognition' instead of teacher beliefs. According to Borg, teacher cognition incorporates different cognitive components such as "beliefs, knowledge, theories, attitudes, images, assumptions, metaphors, conceptions, and perspectives about teaching, teachers, learning, students, subject matter, curricular, materials, instructional activities, and self " (p. 82).

The terms that are mostly used in the Anglophone and Francophone literature to refer to beliefs are: representation, *"représentation"*; attitude, *"attitude"*; perception, *"perception"*; and belief, *"croyance"*. Representation is associated with the idea of interpretation or reorganisation of a certain reality. It is the mental construct induced by individuals by virtue of observing objects in different situations (Biron, 1991). Attitudes, according to Thurstone and Chave (1929) are the result of sensations and feelings regarding an object or a situation that influences perception and behaviour. Perception, from the perspective of Gagné (1979) "constitutes the process through which all persons or a group of persons notice the objects that are presented to them or the events that are taking place" (p. 25). Cognitive psychology defines beliefs as a representation of reality that guides thinking and behaviour (Abelson, 1979; Anderson, 1985). What a person believes about a subject can affect his/her knowledge, attitudes, and behaviour on the subject (Kagan, 1992a; Pajares, 1992; Rokeach, 1968). To illustrate, Rokeach (1968) has identified

three components of beliefs: (1) a cognitive component that acts on one's knowledge; (2) an affective component which exercises an influence on a person's attitudes and feelings; and (3) a behavioural component that operates on his-her actions. That is why Johnson (1994) and Rokeach (1970) argued that beliefs can be inferred from what persons think and do.

According to Pajares (1992), teacher beliefs can be seen from three perspectives. In other words; he reported three types of teacher beliefs: (1) stated beliefs represent what 'should be done' and 'should be the case'; (2) ideal beliefs stand for what 'is preferable'; and (3) real beliefs correspond to what 'is done'. Given that is difficult to operationalize the difference between stated and ideal beliefs because of the perceivable overlap between them, these two will be considered as one type of beliefs in the present study. They are referred to as stated beliefs. These distinctions in perspectives are also touched upon by Borg (2006) who made a delineation between beliefs that are expressed in relation to ideal-oriented cognitions (ideal instructional practices and how things should be) and those expressed in relation to reality-oriented cognitions (instructional realities and how things are). Borg maintained that "data based on and elicited in relation to observed classroom events may better capture teachers' cognitions in relation to actual practices" (p. 280). As a result, this study looks at teachers' beliefs from two perspectives namely stated beliefs (ideal-oriented cognitions according to Borg) and real beliefs (referred to by Borg as reality-oriented cognition). Stated beliefs are usually measured through questionnaires and interviews. Reality oriented beliefs are commonly measured through classroom observations. However, to better understand teachers' beliefs, it is important to know the factors influencing the development of these beliefs. The following section describes these different factors.

***Factors affecting the development of teachers' beliefs***

Teachers' beliefs are dynamic in the sense that they are constantly progressing and their development is affected by many factors. Tsui (2003) identified five factors affecting teachers' beliefs. The first factor is experience as a learner, or what Lortie (1975) calls "apprenticeship of observation". The second factor is academic background, such as the discipline one studies. An L2 teacher from a science background will have different beliefs from one working on literature studies. Teaching experience is another factor that contributes to the development of teachers' beliefs. Fourth, personal life experiences can

contribute to the development of teachers' beliefs. Fifth, professional education received by teachers is another factor that shapes beliefs. Among the five mentioned factors, the first factor – experience as a learner – is believed to have the most important impact on teachers' beliefs, especially pre-service teachers' beliefs (Lortie, 1975). Figure 2 displays the five factors affecting the development of teachers' beliefs.

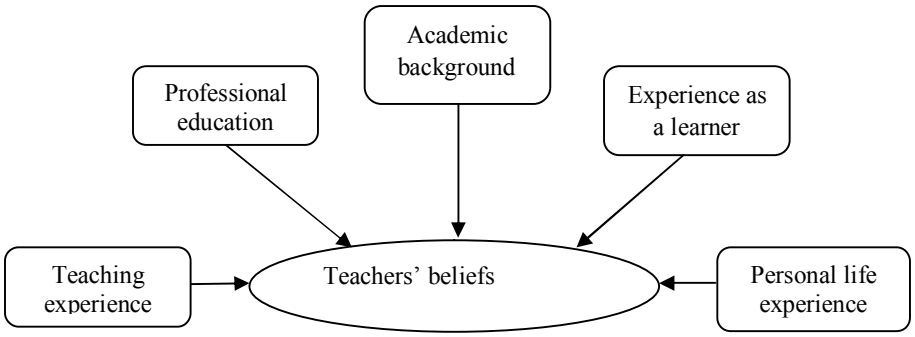


*Figure 2.* Factors Affecting the Development of Teachers' Beliefs

All the factors mentioned above exercise an influence on teachers' beliefs, and this latter as stated above influence teachers' practices. Among teachers' practices that are judged essential to L2 learning is CF. Hence, investigating teachers' beliefs in relation to L2 teaching in general and CF in particular seems crucial, especially when studies that investigated teachers' beliefs about CF are rare (Basturkmen et al., 2004; Hassan, 2011; Kamijo, 2004; Kartchava, 2006; Mori, 2002; Schulz, 2001).Therefore, the present study contributes to this range of research by investigating this question. The following section overviews studies that investigated teachers' beliefs about CF and L2 teaching.

### 2.3 Teacher' Beliefs about CF

By the mid-1990s, teacher belief research had entered the field of L2 education (Woods, 1996), and now it constitutes an important and substantial area of L2 research. Studies in this area of research have targeted different issues related to teacher beliefs, such as the nature of teacher beliefs (e.g., Horwitz, 1985; Johnson, 1992) and the relationship between beliefs and practices (Borg, 2003a, 2006; Hassan, 2011; Johnson, 1992; Pajares, 1992; Phipps & Borg, 2009). However, descriptive studies that investigated teachers'

beliefs in relation to CF are scarce (Basturkmen et al., 2004; Hassan, 2011; Kamijo, 2004; Kartchava, 2006; Mori, 2002; Schulz, 2001).

As an example, Basturkmen et al. (2004) investigated the relationship between three teachers' beliefs and practices related to focus on form, including CF. To identify the teachers' beliefs, two instruments were used; in-depth interviews and cued response scenarios (i.e., the teachers were presented with a set of scenarios of typical classroom situations and asked to comment on what they would do in these situations). The results indicated teachers' preference of prompts and student self-correction over recasts. It revealed also a discrepancy between the teachers' beliefs and practices, as well as inconsistencies among certain beliefs.

On the other hand, Hassan (2011) explored the beliefs and actual practices of 25 Egyptian teachers of French as a foreign language regarding CF. The goal of the study was to determine the extent to which the teachers' practices correspond to their reported beliefs. Data about the teachers' beliefs regarding CF was collected through a questionnaire-administered to the 25 teachers- and an interview-conducted with to 9 of the 25 teachers-. To report on teachers' practices of CF an observation was run for the same 9 teachers who had already passed the interview. Results indicated that almost half of the teachers appreciate recasts as an effective CF technique The results also showed a divergence between teachers' beliefs and their actual CF practices. For the mismatch between teachers' beliefs and their classroom practices, a two-fold pattern emerged. First, all the teachers reported that error type determined the technique they used to correct errors and that they preferred pushing their learners to self-correct. However, the analysis of their practices reveals that recasts are the technique of choice and that was regardless of error type. Instances of self-correction were rare with teachers choosing to recast most of their students' errors instead of pushing them to remedy the errors on their own.

Kartchava (2006) investigated the relationship between 99 novice ESL teachers' beliefs about CF and their actual teaching practices. To report on the teachers' beliefs about CF, a questionnaire was administered to the 99 teachers. To explore the relationship between the teachers' beliefs and their in-class practices, ten of these teachers watched videotape scenarios showing different language error types and indicated whether and how they would correct them. In addition, the ten teachers were videotaped teaching an ESL class. The results indicated both consistency and inconsistency in the relationship between

beliefs and practices. That is to say, the inconsistency was demonstrated through the fact that the teachers corrected fewer errors than they declared, and consistency was apparent in that teachers used the same type of CF (i.e., recasts) with videotaped scenarios as well as in classroom.

Kamijo (2004) examined the relationship between teachers' beliefs about CF and their relevant pedagogical practices using interviews and observations. The participants were two ESL Anglophone teachers who have a great teaching experience. Each subject taught two grammar lessons to an adult Japanese woman for almost two months and was interviewed before and after the observation. The results of the interviews indicated that the two teachers believe in the effectiveness of prompts in pushing learners to self-correct, and that implicit recasts would be useful for the beginners. Analyzing the class observations showed consistency among the teachers' beliefs and actual practices regarding CF.

Obviously, we can see that teacher beliefs have gained interest in terms of research. The principal reason -as stated before- could be attributed to the fact that "we cannot properly understand teachers and teaching without understanding the thoughts, knowledge, and beliefs that influence what teachers do" (Borg, 2009a, p. 163). Teachers' beliefs are a central factor to account for while investigating CF and L2 teaching in general, in that a teacher who does not believe in the efficacy of CF would not automatically give it. Here an intervention may be required to make these beliefs evolve or change. This intervention could be offered through teacher training programs or courses that aim to develop and or change teachers' beliefs, and thus hoping for developing their practices. Hence, the goal of this study is to try to work on teachers' CF beliefs through a CF teacher training course that aims to develop these beliefs. As such, the current study differs from most previous studies, which investigated teachers' CF beliefs from purely descriptive lenses. It makes part of the few studies that have examined the impacts of teacher training courses, programs and practicums on teachers' L2 teaching and CF beliefs (Brown & McGannon, 1998; Bush, 2010; Kerekes, 2001; Peacock, 2001; Vasquez & Harvey, 2010). The current study is thus an attempt at acting on pre-service teachers' beliefs by trying to develop, update or to change them. The following section demonstrates the importance of training for teachers' beliefs and hence the significance of the present study.

## 2. 4 Importance of Training for Teachers' Beliefs

Apart from targeting teachers' pedagogical practices, several researchers insisted on the importance of targeting teachers' beliefs in teacher training programs (i.e., teacher education programs). For example, Pajares (1992) argues thatit is necessary to know and identify teachers' beliefs in order to improve their training and teaching practice. This improvement in teachers' beliefs can be achieved through developing these beliefs, by making teachers adopt new beliefs and practices or by changing their initial beliefs. That's why, Bruner (1996) argued that teacher training programs should target student teacher beliefs given that any new information provided during training will need to compete with, replace or modify the beliefs that guide them (Bruner, 1996). Karavas and Drossou (2010) attributed the need to target teacher beliefs in training programs to the fact that:

> "Student teachers' beliefs play a pivotal role in the way they interpret and acquire information from their teacher education courses. Their beliefs act as perceptual, self validating, selective filters which sieve information presented to them. This filtered information is then used to confirm and support rather than confront or challenge their pre-existing conceptions." (p. 262).

As seen above, teacher training is important for the evolution, development or change in teachers' beliefs, as this latter guide and influence their practices. The following section sheds more light on the concept of teacher education by describing its two types; initial and continuous.

## 2.5 Teacher Education

In general, teacher training or teacher education is a process by which pre-service and in-service teachers either prepare or update their capacities of teaching in a classroom. Here, we distinguish between two types of teacher education: initial teacher education and continuing professional development. Initial teacher education is defined as:

> "a form of higher education, one that introduces students to conversations about the nature and key concepts of learning. There is both an intellectual and a practical component to teacher education. It must be situated within a university or university-college in order to allow the meaningful interaction of student-teachers with research-oriented faculty and to promote awareness of the interconnected nature of theory, research, and practice in the profession." (Association of Canadian Deans of Education, p. 2).

However, initial teacher education is not sufficient to exercise the teaching profession throughout professional life: it must be complemented and adjusted by in-service training activities throughout the professional life (Masselter, 2004). Continuing professional development, on the other hand, refers to "all actions and activities in which in-service teachers are involved, either individually or collectively in order to update and enhance their professional practices" (MEQ, 1999). However, it is important to mention that, literature makes use of different terminologies in referring to continuous professional development, such as continuing professional development; teacher development or perfection; professional development....etc.

Continuous professional development makes use of different ways, such as training by colleagues, university training, action research, colloquiums and conferences, internships and having pedagogical experiences. That is, "all the ways to represent a range of possibilities for adapting continuous professional development to distinctive school environments" (MEQ, 1999). Besides targeting teachers' practices, teacher training programs aims for developing or changing teachers' beliefs and attitudes. The following section shows the effects of training programs on teachers' beliefs.

### 2.5.1 Developing teachers' beliefs through training programs

Developing teacher beliefs was and still is the subject matter of teacher education programmes which hope to develop, change, and evolve teaching and learning. Educational researchers have raised an important debate on the flexibility and the stagnation of teachers' beliefs (Calderhead & Robson, 1991; Kagan, 1992a). Some researchers argued that teachers' beliefs are flexible and able to change, while others stated that teachers' beliefs resist change. In fact, the notion of changing teachers' beliefs interested a wide range of researchers in various domains of education, such as in maths, science, and language teaching and learning, for both pre-service and in-service teachers.

However, the results of these studies are largely inconsistent. To address this inconsistency, Crahay et al. (2010) compiled and analysed studies that investigated the effects of teacher training programs on the beliefs and knowledge of pre-service teachers. They concluded that some studies found a resistance in student teachers' beliefs, while others found a development in beliefs. However, few L2 studies tried to answer the question: are teachers' beliefs amenable to change? Between resistance and change, this question has generated a long theoretical and empirical debate which is presented below.

2.5.1.1 Teachers' beliefs resist change

The majority of educational researchers and teacher training programs agreed on the difficulty of changing teachers' beliefs (Almarza, 1996). In a case study on two student teachers, Olson (1993) concluded that pre-service teachers, following their training programs, did not change their beliefs on the ways of teaching. Peacock (2001), in a three year study of a teacher education program, found no significant change in the beliefs of 146 pre-service teachers in relation to communicative approaches and techniques. Crahay et al. (2010) cited some works that reviewed studies on the effects of training programs on student teachers' beliefs such as Richardson (1996), Borko and Putnam (1996) and Richardson and Placier (2001). Crahay et al. mentioned that all these literature reviews support the position that teachers' beliefs are resistant and difficult to change.

***Reasons for resistance in teachers' beliefs***

Understanding the reasons for resistance in teachers' beliefs could help teacher trainers and training programs target the sources of resistance and deal with different beliefs. Reasons for resistance in teachers' beliefs could be either: (1) initial beliefs covered by past experience as a student; (2) student teachers' pre-existing or initial beliefs; (3) lack of experience in teaching practice; (4) culture; (5) individual differences and (6) the training program. Each of these reasons is explained in detail below.

One of the most important factors that could influence teachers' beliefs is their past experience as a student, referred to as 'apprenticeship of observation' (Lortie, 1975). Lortie explained that student teachers (pre-service teachers) are influenced by their own teachers' beliefs and behaviours during their scholarity. Lortie's argument supports the famous expression 'we teach what we were taught' in which student teachers imitate their own teachers' teaching instead of applying what they have learned during training programs.

Another reason that may cause resistance in teachers' beliefs -particularly pre-service teachers- is student teachers' pre-existing or initial beliefs. Crahay et al. (2010) argued that "as early a belief is incorporated into the individual's cognitive system, it will be difficult to dislodge" (p. 108). In contrast, beliefs that are newly acquired are more easy to change, (e.g., Abelson, 1979; Clark, 1988; Munby, 1982; Nespor, 1987; Nisbett & Ross, 1980; Rokeach, 1968). In the same vein, Schommer (1990) argued that new information that is compatible with the pre-existing beliefs are noticed and automatically integrated into the belief system, while contradictory and conflicting information is either transformed (i.e., deformed) or thrown out the belief system. Desforges (1995) argues that "Teachers appear to be blind to data inconsistent with their beliefs and practices" (p. 390). Coburn (2004) also considered that teachers are more likely to notice new knowledge and experiences that are compatible with their beliefs.

As an illustration of the above arguments, Feiman-Nemser and Buchmann (1989) presented an example of a student who was influenced by her initial beliefs during her recommended readings. This student was not capable to acquire information that conflicts with her beliefs, and instead, she tended to transform (i.e., modify) -unconsciously- the message conveyed in the text to make it more compatible with her beliefs. As another example, Anderson (2001) presented a case of a student teacher 'Jessica' who "noticed those features of the case that she already believed, and she ignored other features that represented new or alternative interpretations'' (p. 197). In other words, pre-existing beliefs act as a filter that could accommodate or block any form of change, a mechanism that was referred to as the 'selective perception of information' by Tversky and Kahneman (1974).

Chinn and Brewer (1993) referred to these pre-existing and intractable beliefs as 'entrenched' beliefs, which they defined as "a belief that is deeply embedded in a network of other beliefs." They clarify that "[a] deeply entrenched belief... (a) has a great deal of evidentiary support and (b) participates in a broad range of explanations in various domains" (p. 15). Richardson (1996) presented another reason for the difficulty in changing pre-service teachers' beliefs, arguing that it is difficult to change pre-service teachers' beliefs because of their lack of experience in teaching practice. According to her, helping student-teachers make a link between their beliefs and practices is hypothesised to facilitate change in beliefs. That is, it is difficult to help pre-service teachers make a link between their beliefs and practices, because of their lack of experience in teaching practice.

That is, the deep practical knowledge, held by experienced teachers is closely linked to action, and it is this action that is perceived by teachers as being the focus of change (Richardson, 1996).

Pajares (1992) added the notion of culture, which he viewed as a 'belief structure' that influences beliefs. He argued that "those beliefs are incorporated into a belief structure and this strongly influences the processing of new information" (p. 317). Supporting Pajares' argument, MacDonald, Badger and White (2001) attributed student teachers' failure to be convinced by certain research results (e.g., CF research results) - presented to them through their training course - to the fact that "... cultural influences were still proving more powerful for them than empirical research" (p. 959). That is, many of the student teachers had come from teaching cultures where there is a low tolerance of error in the classroom.

Resistance in beliefs can appear when researchers report overall (group) change instead of individual change. That is to say, empirical studies investigating change/resistance in teacher beliefs focused on either group or individual development. In the case of group development, individual changes as well as individual differences could be hidden. Individual differences can be a reason either for how resistant or how easy it is to change one's beliefs. As stated by McCarty (1993), some teachers may need a short time to acquire new beliefs and practices while others need months and even years to achieve change.

Hunzicker (2004) mentioned the lack of motivation, which could be caused by one of three factors: (a) negative associations relevant to previous experiences (Jensen, 1998; McCarty, 1993), (b) distracting situational or environmental conditions like personal life (Jensen, 1998); or (c) negative beliefs (i.e., lack of confidence) about their capacity to use particular skills or knowledge in the future (Jensen, 1998; McCarty, 1993). Irrespective of when these factors come into play (past, present or future), each of them may shape the teacher trainees' involvement in their training program (active versus inactive participant) impeding as a consequence the potential changes in beliefs.

The reinforcement of teacher beliefs may be attributed to the presence/absence of a practicum in the training program. This absence is problematic especially that student teachers in general seek the practicum during their training rather than the theoretical part of the course because they believe that it has a greater effect than the courses. The practicum helps teachers in training gain experience (e.g., Book, Byers & Freeman, 1983).

Along those lines, Kerekes (2001) found that the teachers who followed a course on SLA theories wanted practical applications of the theories they had learned. As one of the teachers states, "I would like some practical ways to improve my teaching rather than merely theories that will not directly affect the children in my class" (p. 31). However, Leavy, McSorley and Boté (2007) found that student teachers who followed courses alone without the practicum manifested a change in their beliefs; on the other side, those who took the practicum following the training course do not show any development in their beliefs. Hence, the researchers concluded that experience gained from the practicum deletes any previous effect the training course might have on student teachers' beliefs. According to them, those who took the practicum and did not change their beliefs did not develop sufficient opportunities for reflection, that is; they did not make a link between the concepts seen in the courses and the real classroom experience in the practicum. The researchers proposed 'reflective practice' as a solution to this problem so that teachers in training manage to make the necessary connections between theory and practice. Mettheoudakis (2007) corroborated Leavy et al. research findings and argued that the practicum would reinforce these beliefs, that is; during the practicum, student teachers live the same experience as they were students and thus strengthen their initial beliefs washing out the effects of the changes sought by the theoretical courses.

It is worthy to note that stability in student teachers' beliefs does not indicate lack of change but is a manifestation of student teachers' active attempts to balance pre-existing beliefs and present reality (Johnson, 1992). However, it is important to note that, when it occurred, change in beliefs did not necessarily imply change in practices and vice-versa (Borg, 2006).

#### 2.5.1.2 Teachers' beliefs can change

Both theoretical and empirical research seem to indicate that teachers' beliefs are flexible and amenable to change (Ammon, 1991; Bush, 2010; Butt, Raymond, McCue & Yamigishi, 1992; Cabaroglu & Roberts, 2000; Hollingsworth, 1989; Jones & Vesilind, 1996; Levin & Ammon, 1992; Richardson, 1990; Richardson & Placier, 2001; Vasquez & Harvey, 2010; Winitzky, 1992). Cabaroglu and Roberts (2000) revealed change in student teachers' beliefs about L2 learning at the end of teacher education programs, and similar results were found by Bush (2010), Richardson (1990) and Vasquez & Harvey (2010). Butt, Raymond, McCue and Yamigishi's case study (1992) found a development in the

beliefs of two teachers. Butt et al. attributed this development in the teachers' beliefs to factors related to students, colleagues, parents and even to teachers' personal lives.

Teacher beliefs can develop and evolve, and this development could be either a strengthening or change (slight or radical) of their initial beliefs. Crahay et al. (2010) raised an important point by clarifying that change in teachers' beliefs could be either superficial (first order change) or profound (structural or second order change). Other researchers assume that in most cases, changing teachers' beliefs remains difficult and if it occurs, it is a superficial rather than a deep, significant change (Wideen, Mayer-Smith, & Moon, 1998). Crahay et al. categorised the studies that found a development in future teachers' beliefs into two categories: studies that found a small development in beliefs after a period of resistance, and studies that found a development in some categories of beliefs and a resistance in others. The latter studies suggest that some beliefs are apt to change and develop more than others (Abelson, 1979; Lortie, 1975; Nisbett & Ross, 1980; Rokeach, 1968). It is important to note that change in beliefs can result from change in practice, which is triggered by teachers' experience.

It is important to note that change in practice can lead to change in beliefs, and it is experience that triggers this change in practice. Larsen-Freeman (1999) points out that methods are changeable in practice; as teachers become more experienced, they may have different views on a particular method.

In some cases, it is necessary that teachers master or develop certain techniques or practices before developing particular beliefs; in other words, the mastery of these techniques is a condition for developing beliefs. As an example, Hollingsworth (1989) observed that student teachers need to master some techniques of class management in order to develop their content pedagogical beliefs. Crahay et al. (2010) assumed that in-service or experienced teachers could not avoid natural change or evolution in their careers. To change teacher beliefs, multiple strategies have been proposed by researchers. The next section shows how teacher beliefs can be changed.

### *Strategies to develop and change teachers' beliefs*

Varying from discrete and implicit to direct and explicit, a multitude of different strategies have been reported in teacher beliefs literature and teacher education programs. Lunderberg and Levin (2003) believe that "pedagogy that offers opportunities for collaboration, choice, communication, community, constructivism, understanding multiple

perspectives, and anchored instruction has the potential to change our students' prior beliefs" (p. 39). In turn, Fenstermacher (1986)insisted on using empirical research in teacher training programs to affect and change their beliefs. Actually, Fenstermacher was opposed to the idea that teachers strictly apply the recommendations of empirical research as if they were obeying and following orders. According to him, triggering teachers' reflection on the recommendations of empirical research would be more advantageous and give better results rather than merely implementing and obeying recommendations. Fenstermacher explained that, when teachers choose a particular practice, their justifications and arguments of that choice are as important as the effects of that practice.

Confronting and challenging teachers' pre-existing notions proved to be an efficient strategy to affect and change teachers' beliefs (e.g., Comeaux, 1992; McDiarmid, 1990). This strategy is based on logic and proof; it confronts teachers' pre-existing beliefs through convincing and logical scientific explanations (Crahay et al., 2010). Hollingsworth (1989) confirmed the advantage of this technique, as he found that students who confronted their initial beliefs to the theories seen in the training program were able to build more profound knowledge. However, in spite of all efforts to change teacher beliefs, some beliefs still resist contradictions even though the latter are grounded in logic and proof. The following section gives more details about further strategies to change teachers' beliefs.

*1- Problem solving learning*

Richardson (2003) mentioned another strategy to affect teachers' beliefs, called 'problem solving learning'. In this strategy the teacher educator "encourages students to acquire and then apply content knowledge, critical thinking, and problem solving skills to real world problems to be solved" (p. 28). The first step is to present student teachers with problems, i.e. real-world issues, for them to solve. This strategy provides the group of student teachers occasions for discussions, reflection, research, projects, and presentation. It offers learning which is active, integrated, cumulative, collaborative and connected (Levin, 2001, cited in Lunderberg & Levin, 2003).

*2- Action research*

Pre-service as well as in-service teachers are engaged in action-research during their training courses, seeking improvement in teaching and learning through critical reflection on problems that occur in teaching practices (Gore & Zeichner, 1991). The

rationale behind using action research is to provoke changes on teachers' practices (Henson, 1996). In Kerekes' (2001) study on the effects of a teacher education course on pre-service teachers' beliefs, one of the student teachers argued that: "…through those case studies we have learned valuable information about our children and we can…hopefully improve our teaching."(p. 31). Another teacher explained:

> I'm becoming an explorer teacher. I use demonstration and learning through doing. I view my ESL kids a bit differently in that I am more observant and aware of how each of them learns [sic], unfortunately I haven't had the time to do a complete case study.(p. 32)

Vasquez and Harvey (2010) presented the advantage of engaging teacher trainees in such research. Participants in their study were asked to replicate a descriptive study on oral CF (Lyster & Ranta, 1997) and analysed changes in beliefs as a result of engaging in such procedure (a detailed description of the study will be provided in the empirical research section). They argued that the strongest impact of research replication lies in creating different conditions under which the teachers could reflect profoundly on their practices.

*3- Confrontation of teachers' beliefs*

Another strategy that proved to be effective in a wide range of empirical studies in changing teachers' beliefs was confronting teacher beliefs. Confrontation of teachers' beliefs is 'early awareness rising of pre-existing beliefs' (Cabaroglu & Roberts 2000, p. 399). To achieve confrontation of teachers' beliefs, Cabaroglu and Roberts maintained that teachers' beliefs should be made as explicit as they can, and should be confronted by other persons who can offer different analysis of the same teaching/learning situation and thus different beliefs. Furthermore, Yost, Sentner, and Forlenza-Bailey (2000) insisted on the need to create opportunities for student teachers to compare their beliefs with the philosophy of the teacher education program, which in turn would facilitate the student teachers' adoption and development of new beliefs and approaches.

Several researchers supported these above claims. In other words, the need to make teachers' beliefs explicit in order to analyse and challenge them (e.g., Almarza, 1996; Crandall, 2000; Kagan, 1992a). According to Lamb (1995), addressing and changing teachers' beliefs could be achieved through awareness raising and reflection activities.

Joram and Gabriele (1998) argued that "targeting prior assumptions may also lead to actual changes in their beliefs"(p. 188).

While some researchers emphasized confronting teachers' beliefs to achieve change (e.g., Kagan, 1992a), others insisted on gradual, cumulative development (e.g., Anderson, 2001). Such a developmenttakes a long time to be achieved, and once achieved, would be more difficult to alter (e.g., Mattheoudakis, 2007). However, in our view, early confrontation of the teachers' beliefs saves time and effort; consequently, it will be employed in the training course of the current study. Furthermore, Hunzicker (2004) presented other ways to develop teachers' beliefs. According to her, presenting new information (new ways of thinking) frequently over time ends up by provoking 'disequilibrium' between the teachers' pre-existing beliefs and the new information (Jensen, 1998; Nuthall & Alton-Lee, 1993).

To sum up, for training to have an effect, some training techniques must be used. Kagan (1992a) summarized them as follows.

> To promote conceptual change among students, teachers must (a) help students make their implicit beliefs explicit; (b) confront students with the in-adequacy or inconsistency of those beliefs; and (c) give students extended opportunities to integrate and differentiate the old and the new knowledge, eliminating brittle preconceptions and elaborating anchors. (p. 76)

Once these conditions are met, some changes in teachers' beliefs are expected to take place. The question that comes to mind has to do with the nature of change. More specifically, one cannot help wonder what constitutes change when it comes to teachers' beliefs. The following section outlines the different types of changes that are likely to accrue from teacher training activities.

***Types of change in teachers' beliefs***

In a study, Cabaroglu and Roberts (2000) investigated development in pre-service teachers' beliefs during one year of a teaching training program. Particularly, they aimed to test whether/ or to what extent pre-service teachers' beliefs on language teaching and learning resist change during training programs. Cabaroglu and Roberts identified 11

categories for change or development in student teachers' beliefs. The 11 categories of change in beliefs are; (1) awareness/realization; (2) consolidation/confirmation; (3) re-labeling; (4) Addition; (5) elaboration/polishing; (6) re-ordering; (7) linking up; (8) disagreement; (9) reversal; (10) pseudo change; (11) no change. Each of the 11 belief development processes are explained with examples in Table 8. These categories were achieved through interpretive analysis of the study's data. However, in the present study only five categories were retained an interrated reliabilty coding procedure of the 11 categories. The five retained type of change categories are; (1) reversal; (2) elaboration; (3) consolidation; (4) pseudo change and (5) no change.

Table 8

*Belief Development Processes (Cabaroglu & Roberts, 2000, p. 393)*

| Category label | Distinctive features | Example |
|---|---|---|
| Awareness/realisation | Awareness of a discrepancy, conflictor coherence | ``I realised that. . ." |
| Consolidation/confirmation | Strenthening of existing beliefs | ``I do actually feel stronger about. . ." |
| Elaboration/polishing | Reconstruction of beliefs by addition, omission and so on; deepening ofbelief by additional dimensions | ``I've got slightly more sophisticated ideas now." ``What I am saying now is just a bit more developed." |
| Addition | Integration of new beliefs | ``. . .the notion of autonomy is quite a newone to me." |
| Re-ordering | Rearrangement of beliefs regarding their importance | ``more and more I am realising that it isn'tnecessarily the most important thing. . ." |
| Re-labelling | Re-naming of a construct | ``What I was then calling dynamic approach now I'd call active pupil-centred." |

| | | |
|---|---|---|
| Linking up | Establishing a connection between constructs | ``. . .lesson planning will guarantee a goodclassroom management." |
| Disagreement | Rejection of existing beliefs or presented information | ``I don't feel that anymore."<br>``No, teacher shouldn't move everywhere." |
| Reversal | Adoption of opposite of previous belief | ``[a teacher] has to be. . . a<br>little bit mad. . . "(Interview I/ST14)``A bit mad no!. . ."(Interview II/ST14) |
| Psuedo change | Pretended or false change in beliefs;not a real change | ``I have to do it, I'll do it".<br>``I still agree with that but<br>it's like doctors say `we want to get paid more.'<br>I think it's not possible." |
| No change | No apparent change or development in beliefs | ``I feel the same way that<br>I did at the beginning ofthe course." |

The theoretical debate –presented above- on the resistance and malleability of teachers' beliefs pushed researchers to investigate this question empirically, and act on teachers' beliefs through a variety of teacher training programs, courses and practicums using different tactics. These empirical studies were done in different fields of research such as mathematics, L2 and CF. These studies are described below.

### 2.5.2 Empirical research on the effects of teacher training on teachers' beliefs

The question of changing and developing teachers' beliefs through teacher training programs was and still is widely targeted across different domains such as mathematics, science, technology, literacy, reading, pedagogy, curriculum and language. In fact, the question is mostly investigated in mathematics rather than the other domains. Consequently, a description of the research about maths teachers' beliefs will be provided first. However, given the focus of this study, a more detailed description of the literature

regarding language teacher beliefs in general will be provided followed by the L2 literature, and more specifically the CF literature.

*2.5.2.1 Mathematics beliefs studies*

As mentioned above, several mathematics studies investigated the question of developing teachers' beliefs through teacher training programs. Examples of these studies are presented below, starting with studies that used surveys only in their investigation of beliefs, followed by those that made use of both surveys and interviews, and finally studies that utilised multiple measures including classroom observation.

Wilkins and Brand (2004) investigated and evaluated the effects of an elementary mathematics methods course on pre-service teachers' beliefs about mathematics teaching and learning. In particular, it investigated the degree and direction of change in the student teachers' beliefs. Participants were 89 elementary pre-service teachers enrolled in a semester-long graduate-level mathematics methods course. In this study, the effects of the course on the student teachers' beliefs were assessed through a 4-point Likert scale 30-item Mathematics Belief Instrument to assess the degree of change in beliefs. To assess direction of change in beliefs, any level of agreement was coded as 1, and any level of disagreement was given the code 0. Thus, the percentage of the items with which a participant "agreed" with the reform mathematics philosophy represented his/her overall score. The mathematics belief survey was completed twice by the participants; at the beginning and at the end of the course. This study presented construct validity and reliability of the first 16 items of the survey by 17 experts in mathematics education. Results revealed a development in the participants' beliefs in a way that was more consistent with current mathematics education reform as the instigative approach in teaching and learning mathematics (e.g., mathematics pedagogy and children's mathematic development). However, adding other instruments such as interviews would enrich the survey data and would provide more insights on the reasons of change. Similar results were obtained by Bahr, Bossé and Eggett (2008) who used surveys that contained questions or statements with which participants had to agree or disagree on written and video cases.

Szydlik E, Szydlik D and Benson (2003) investigated changes in pre-service elementary teachers' beliefs about the nature of mathematical behaviour. Participants were 93 pre-service teachers enrolled in a mathematics content course. The objective of the

course was to provide participants with real mathematical experiences and to enhance autonomous mathematical behaviours. Change in the participants' beliefs was tracked using two instruments: a 10 item Likert scale questionnaire and an interview before and after the course. Once questionnaire scores of each participant were ready at the beginning of the course, 24 participants were chosen randomly to participate in a 20 minutes structured interviews in which they provided justifications and clarifications on the questionnaire responses. Apart from commenting their responses in the questionnaire, the interview contained two additional questions; "1) Is there anything about this class that has changed your view about mathematics in any way; and 2) What is it about the way the class was run or structured that allowed you to see [whatever is was they said had changed]." (p. 264).

Results revealed that the participants' support of autonomous behaviour became reinforced. Indeed, change was found in the participants' beliefs about specific classroom social norms and socio mathematical norms and many were able to communicate changes in their beliefs insightfully. However, in this study, the course instructor was one of the researchers, which might have biased the obtained results. Instead of reflecting actual change, students' answers might have been formulated in such a way to please their instructor. Similar results were found by Hart (2002) who used the same methodology. Studies that used multiple measures including observation are presented below.

Nesbitt and Bright (1999) examined changes in 34 pre-service elementary school teachers' beliefs about teaching and learning mathematics, and their abilities to provide mathematics instruction. Participants were enrolled in a two year training program that included a mathematic method course work a practicum. The mathematic method course(i.e., theoretical part) included theories about teaching and learning mathematics as well as an introduction to a Cognitively Guided Instruction (CGI) on how to provide mathematics instruction. On the other hand, the practicum (i.e., practical component) included a student elementary teaching module in which they applied CGI and during which they guide their pupils cognitively in their learning process. To track any change in the participants' beliefs, the 48-item CGI belief 5-point scale was administered four times: at the beginning of the program, at the beginning of the mathematics method course, at the beginning and at the end of the practicum of the student teaching and the end of the program. To validate and confirm the survey data, eight classroom observations for each

student teacher were conducted. In addition, a more profound study of two pre-service teachers was added to the data. This included reflective journal entries based on the mathematics methods course and student teaching, four videotaped mathematical lessons, and three open-ended interviews.

As measured by the questionnaire, results revealed a significant change in the teachers' beliefs about mathematics instruction particularly at the end of the mathematics method course. Indeed, student teachers' beliefs maintained significant change all along the student teaching semester. The researchers attributed the change in beliefs- as indicated by the data- to intensive experience and focusing on child thinking during the mathematics methods course.

However, the researchers did not provide a detailed description of the nature of that change in beliefs. Table 9 resumes the above studies.

Table 9

*Summary of Mathematics Studies Investigating Change in Teachers' Beliefs*

| Instrument | Study | Results | Limitations |
|---|---|---|---|
| Survey | Wilkins and Brand (2004)<br><br>Bahr, Bossé and Eggett (2008) | ➢ Development (operationalized as increments in the Likert-scale data) in the student teachers' beliefs after training course | ➢ These studies used only one instrument to investigate beliefs.<br>➢ They focused only on declared beliefs. |
| Survey and interview | Szydlik E, Szydlik D, and Benson (2003)<br><br>Hart (2002) | ➢ Change/development (operationalized as increments in the Likert-scale data) in some of the student teachers' beliefs | ➢ These studies were limited to investigating declared beliefs |
| Multiple measures including observation | Nesbitt and Bright (1999) | ➢ Significant change in beliefs that was attributed to extensive experience and was maintained all along the semester | ➢ This study did not report on the nature of change in beliefs |

*2.5.2.2 Language teacher beliefs studies in general*

As in mathematics, several studies were conducted in the domain of languages in general to target the effects of training programs on teachers' beliefs. These studies are presented in the following section. First, studies that used one instrument (usually surveys) to report on beliefs, are overviewed. Second, then, studies that employed interviews and/or surveys are presented. At the end, studies that used multiple measures -including observation- are discussed.

In a study, Urmston (2003) aimed to determine the teaching orientations of pre-service teachers. In particular, he aimed at evaluating changes in their teaching beliefs during a three- year teacher training program and the reasons behind that change. Participants were 40 student teachers, all Hong Kong Chinese native speakers of Cantonese. To measure the student teachers' beliefs, a questionnaire was administered. The objective behind using a questionnaire was to assess the beliefs, attitudes and approaches of the participants towards the teaching of English language in Hong Kong. The questionnaire consisted of a Likert scaled and other scaled, short response and comment items designed to elicit the beliefs, attitudes and approaches of the trainee English teachers. The questionnaire addressed several teaching topics, such as language use, decision making and lesson planning, teaching approaches, responsibilities and professional relationships, and perception and values. The questionnaire was administered twice: at the first year and at the end (third year) of the program. Mann-Whitney tests were used to evaluate the obtained belief changes from the Likert scale questions and chi-square analyses were run on the data obtained from questions in which participants had to circle factors.

In this study, only the results of two questionnaire sections were presented: 1) responsibilities and professional relationships, and 2) perceptions and values. Results on the first section showed a significant change in beliefs relevant to certain, outside- class, activities which student teachers need to do. For example, after the training, the trainees realised that marking, attending meetings, and preparing examinations were required duties of the secondary school teacher. Findings of the second section indicated that participants developed a more precise teaching philosophy at the end of the course. For instance, the

responsibilities and the role of the teacher changed from student centered to teacher responsibilities.

In a longitudinal study, Mattheoudakis (2007) examined EFL student teachers' beliefs on English language teaching and learning. He aimed to track any change in the student teachers' beliefs over a three years teacher training program. In particular, this study explored the impact of pedagogical practices on the student teachers' beliefs. The study was realized in English language teaching (ELT) at Aristotle University of Thessaloniki (A.U.T.). Participants were 66 volunteers, including two groups; a practice-group (n = 30) and a non-practice-group (n = 36). The practice group was in the last year of study after completing their teaching practicum. The non-practice group finished the ELT program till the fourth year; however, they did not participate in the ELT teaching practicum. The beliefs of these two groups were compared.

To report on the student teachers' beliefs, a BALLI questionnaire – adopted from Horwitz (1985) - was used. The questionnaire contained 34 Likert scale items including five categories; a) the nature of language learning, b) the difficulty in language learning, c) aptitude of foreign languages, and d) pronunciation and strategies of learning languages. The questionnaire was administered four times; at the end of their first year and at the end of each of the three subsequent years. In addition to the BALLI questionnaire, a brief questionnaire was administered only one time to identify student teacher background. It contained 10 questions which tackled five issues: a) their linguistic background, b) their English language knowledge, c) the English language courses they had already passed, c) their experience in learning English language, and d) the core and elective teacher education courses they attended at the university. Students' responses to the BALLI questionnaire were analysed statistically using independent sample t-test. In particular, students' BALLI data were recorded each year and compared to the beliefs of the preceding year.

Results revealed that the majority of many students' beliefs develop progressively from one year to another. Significant changes were also observed between the first and the last year ($p = 0.007$). However, no significant changes were found between a year and the preceding one. For instance, the disagreement percentage for in item 11 (I should only speak when I can say the correct words) had increased along the training program and

varied between 86% and 97%, that is student teachers became more convinced that error is tolerated in the learning process, and that language learners should speak and communicate even if they make errors. It is important to note that, there was no change in the beliefs of the practice group between the first and the fourth year, contradictory to the non-practice group students who changed their beliefs. The researcher concluded that teaching practices had little effects on student teachers' beliefs.

While important, the obtained results should be interpreted with caution, because the study targeted the effects of the whole training program (compulsory and elective courses) that possibly did not cover all the issues of the questionnaire equally. It is difficult to know if each training year had comparable effects, which makes it hard to identify the source of change in beliefs. Furthermore, in this study it was impossible to control and guarantee homogeneity of the two groups concerning the courses assisted by each student and educational background.

Cabaroglu and Roberts (2000) investigated the nature of pre-service teachers' beliefs and their development during a one-year teacher-training program. Particularly, they aimed to test whether/ to what extent pre-service teachers' beliefs on language teaching and learning resist change during training programs. Participants were 25 voluntary student teachers who were enrolled in a 36 week course (PGCE Secondary course in Modern Foreign Language Teaching (MLT)) at the University of Reading. The majority of student teachers had certificates in one or several Modern Foreign Languages like French, English ...etc. Twenty two of the participants had certain teaching experience (ranked from 4 weeks to 14 years) either as a teaching assistant or as a private tutor. The course method was explicitly reflective and experiential in order to learn how to teach. Specifically, the course included 'self regulated learning opportunities'. That is, trainees had to choose one of a menu of topics in a methods assignment, and then explore it theoretically and through direct personal classroom experience over a period of several months. Furthermore, it is important to note that the course included confrontation of the trainees' pre-existing beliefs, which is "early awareness rising of pre-existing beliefs" (p.399). Confrontation of student teachers' beliefs works under three conditions; first, the course should include direct experiential activities (i.e., teaching); second, it should make the student teachers' beliefs explicit; and third, the trainees' beliefs should be confronted by other persons, who have alternative beliefs of the same teaching learning situations. To

report on the student teachers' beliefs and their perception (reflection) of development in them, a sequence of three in-depth interviews were used. The first interview, which was semi-structured, was administered at the beginning of the course with 25 students. The second one was a stimulated recall interview with 23 students and was administered after the observation that the student teachers did in a school and before the principal teaching practices in a different school. The third interview was a stimulated recall too and was administered at the end of the course with 20 students. The interviews addressed the following eight aspects of Modern Language Teaching: a) its place in the curriculum, b) the place of grammar in Modern Language Teaching, c) the best methods in teaching modern languages, d) the characteristics of a good teacher of modern languages, e) the nature of teaching, f) what students need in Modern Language Teaching, g) the nature of learning, and finally h) the effects of teaching practices on the student teachers. An inductive approach was used to analyse data of this study. The following steps were followed to analyse the obtained data: a) familiarisation through repeated readings of transcripts, b) coding, c) clustering, d) operational definitions, e) recuperation and reorganization, and f) testing. This analysis process is linear and consists of a series of complex and recursive segmentation, categorisation and interpretation with several re-definitions of categories of analysis. Results revealed that only one student of the 20 who completed the study seemed to resist change in his/her beliefs. The remaining 19 participants have witnessed gradual and cumulative change, including two participants who displayed a radical change in some aspects of their beliefs. The way the study was designed is certainly one step in the right direction because confrontation of the student teachers' beliefs was included in the training course. Cabaroglu and Roberts (2000) were among the first to analyse belief change according to clear-cut categories. However, they did not report results according to those categories. Instead of providing an idea about the distribution of the different types of change or at least the kind of change that was the most prevalent, they only stated that change was cumulative and gradual, without showing how they reached this general conclusion.

As another example of language studies, Da Silva (2005) investigated change in the beliefs of three Brazilian pre-service teachers regarding the teaching of four skills of English as a foreign language- listening, speaking, reading and writing in EFL classes. The study took place at the Federal University of Santa Catharina in which the participants took

the Teaching Practicum Course. The teaching practicum course comprised two parts. In the first part of the course, the participants attended courses given by in-service teachers in high and elementary schools. In the second part of the course, the student teachers did their own teaching practicum at the presence of their supervisor teacher who helped them reflect on their teaching. The participants were observed throughout their teaching practicum on three different occasions: while they were observing experienced teachers; while they were planning and implementing their own classes; and while they were watching their videotaped classes. The analysis was based on 15 classroom observation reports, 25 self-evaluation reports, 25 lesson plans, 40 hours of recorded and transcribed material of the discussion sessions, 25 hours of videotaped classes, and 8 hours of recorded and transcribed material of the recall sessions. Results revealed that the participants had applied the content of the course into their lesson planning and their teaching practices. However, it is important to note that each participant had his/her own manner in applying the content of the course into the practicum. In addition, observation in this study is used as an indirect source of evidence to report on beliefs. The majority of the above studies used only questionnaires to report on language teachers' beliefs, and used multiple measures (interviews and observations) in few cases (Cabaroglu & Roberts, 2000; Mattheoudakis, 2007; Urmston, 2003). Adding more instruments is required to get a more exhaustive view of teachers' beliefs. That is to say, teachers' reported beliefs are important and could be gathered through either questionnaires or interviews. The following section presents studies that used more than one instrument to report on teachers' beliefs.

As another example, Richards, Ho and Giblin (1996) examined the effects of a practically oriented teacher training course on the beliefs of pre-service teachers. Participants were five pre-service teachers enrolled in the practically oriented course in Hong Kong. The course comprised a theoretical part in which different topics were addressed (e,g., classroom management, lesson planning, developing the skills of reading, listening, speaking and writing and study of the nature of language, learner needs, and instructional materials) and a practical part where participants taught lower intermediate and intermediate level students. The practical component of the course was organised in such a way that three trainee-groups teach the lesson and the remaining two observe. Trainees discussed the lessons they taught with the tutor at the end of h session. Change in the participants' beliefs was measured using two instruments: self-reports as well as audio-recorded and transcribed discussions between the tutor and the trainees. Self-reports were

completed by the trainees through each practice session. These reports consisted of a questionnaire in two parts. The first part was administered after the trainees finished their lesson planning task and contained seven questions that targeted lesson plan. The second part included seven questions that tackled interactive and evaluative lesson decisions, and was conducted after each trainee had taught a lesson. Results revealed the emergence of different beliefs in relation to: 1) participants' conception of their role in the classroom; 2) their knowledge of professional discourse; 3) their concerns for achieving continuity in lessons; 4) common dimensions of the teaching they found problematic like presenting new knowledge and timing and; 5) the manner in which they evaluated their teaching.

When evaluating their lesson decisions and describing what they would do differently next time, some trainees suggested that they would totally change their lessons, while others preferred improvements. It is important to say that change was not the same for all trainees. That is, each one's amount and interpretation of learning from the course differed from the others. However, the results in this study are possibly not generalizable in that it involved only five pre-service teachers.

Ho Yan Mack (2011)'s case study investigated teacher development in beliefs and practices about communicative language teaching (CLT) through a teacher education program. One pre-service teacher enrolled in a one- year, teacher training program in Hong Kong participated in this study. The participant was informed that the study focuses on her progress in the program. The teacher training program consisted of a methodology course of English language teaching, courses that tackled teaching in general, two teaching practicum with four weeks each, in which the participant taught different classes, and a summer immersion program. To measure the student teacher's development during the program, different instruments were used. The instruments were a questionnaire on beliefs about language teaching and learning; follow up interviews; the researcher's field notes of all methodology classes; the video-recordings of teaching practices, lesson plans, conferences between the course instructor and the participant; the teaching advisors' written feedback, and interviews with the course instructors. Using the above instruments, the student teacher's development was measured throughout four points during the program; at the beginning of the programme, during the two methodology courses, during the teaching practicum, and at the end of the course and practicum. All data were analysed using content analysis to identify main themes in relation to CLT and themes were

constantly compared to each other to track any development in the student teacher's beliefs. Among the themes that caught the researcher's attention were beliefs in which there was clear change, and beliefs that resisted change. The results were reported only in relation to three themes; "the suitability of the approach and its implementation; classroom communication and interaction (e.g. student talk versus teacher talk in the target language, group work and pair work, student-student interaction) and the roles of English teachers" (p. 57).

Reinforcement and development were tracked in some of the participants' beliefs. For instance, at the beginning of the course, a participant believed in the effectiveness of CLT, while at the first teaching practicum, issues relevant to the practicing of CLT had immerged in her beliefs. The practicum also had reinforced her beliefs about CLT. At the second teaching practicum, the participant's beliefs about CLT stayed positive, and "her concept of CLT became more context-specific and refined" (p. 61). However, some of the participant's beliefs remained unchanged, and despite the course, she still believed that eliciting learners' responses is not effective for learning. This study also showed that confronting the participant's beliefs via criticism raised her awareness of CLT and teacher talk and encouraged discussions and reflections among the student teachers. Another important fact had immerged from this study. In the first practicum, and relevant to her pre-training experience, the student teacher found it easy to do a lot of teacher talk at her former school. However, at the second practicum, the strategy that she used in the first practicum did not work, as the learners were less motivated, so she opted for maximising student talk through communicative activities. Hence, the researcher concluded that giving student teachers more access to different teaching contexts (situations) and different types of learners could help them move beyond their past experiences as learners. However, the sample in this study is unrepresentative (one participant). In addition, given that the participant was informed that the study aimed at evaluating her development during the program, caution is warranted while interpreting the results. Knowing that the development was under scrutiny, the participant might have reported what the researcher wanted to hear, irrespective of whether there was development or not, invalidating therefore the obtained results. The research done by Da Silva (2005), Richards et al. (1996) and Ho Yan Mack (2011) included observation in their data collection tools. These observations were analysed by the researchers to see how the participants' teaching reflected change or lack

of change in declared beliefs. The teaching component was rather observed by the participants themselves to help them write a report in relation to their own teaching. By doing so, the participants' subjectivity might have weakened the contribution of the observation component of the study. Results might be different, if the researchers themselves analysed the participants' teaching to shed light on change in beliefs. Research in which observation was used as a main data collection tool and analysed by the researchers themselves is reviewed in the coming section. In a case study, Borg (2005a) investigated development in the beliefs of one pre-service teacher after participating in a CELTA four-week pre-service course. The study examined development in the participant's beliefs about teachers and teaching, about language and language learning and about learning to teach. Development in the participant's beliefs was measured using a variety of instruments including interviews at the beginning and at the end of the course, twice- a- week observations of an experienced teacher, input sessions, teaching practice, teacher practice feedback, and documents and questionnaires including lesson plans and other trainees' texts.

Results show that, the participant had developed certain beliefs while other beliefs remained unchanged. As an example, the participant significantly developed her beliefs about grammar to a perspective more centered on teacher rather than on learner. That is, her insistence on active learner participation in a lesson remained unchanged; her practices regarding this belief changed at the end of the course, moving from simply lecturing to actively involving learners in the lesson as claimed in the content of the CELTA course. However, the sample in this study is small. One participant could not confirm development or resistance in beliefs, adding more participants would give more insights on belief development. All the above mentioned language studies investigating change in teachers' beliefs are summarised in Table 10.

Table 10

*Summary of Language Studies in general Investigating Change in Teachers' Beliefs*

| Instrument | Study | Results | Limitations |
|---|---|---|---|
| Questionnaire | Urmston (2003) | ➢ Significant change of certain beliefs<br>➢ development of a more precise teaching | |

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| | Mattheoudakis (2007) | philosophy<br>➢ Progressive development in beliefs from one year to another | ➢ No control of the courses assisted by each participant each year |
| A sequence of three semi-structured interviews<br>Observation | Cabaroglu and Roberts (2000) | ➢ Nineteen out of the 20 participants witnessed gradual change in beliefs and only one participant resisted change | Data were analysed according to 11 categories of change (pp. 49-50) but results of change per category were not reported. |
| Observation | Da Silva (2005) | ➢ Application of the course content in teaching practices | ➢ One instrument as indirect report on beliefs<br>➢ Observation videos were observed by the participants for writing a reflection |
| Questionnaire<br>Discussions between the tutor and the trainees<br>Observation | Richards, Ho and Giblin (1996) | ➢ Evidence of total change (e.g., those in relation to the participants' conception of their role in the classroom) and improvement. | ➢ Only five pre-service teachers as participants<br>➢ Observation videos were observed by the participants for writing a reflection |
| Questionnaire<br>Interviews<br>The researcher's field notes<br>Video-recordings of teaching practices<br>Lesson plans | Ho Yan Mack (2011) | ➢ Reinforcement and elaboration of some beliefs<br>➢ Emergence of new issues (clear change)<br>➢ Some beliefs remained static (no change) | ➢ Only one participant<br>➢ The participant was informed that the study aimed at evaluating her development during the program<br>➢ Social desirability<br>➢ Video-recordings were observed by the participants for writing a |

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| | | | reflection |
| Interviews<br>Observations of an experienced<br>Questionnaires<br>Lesson plans | Borg (2005a) | ➢ Development in certain beliefs<br>➢ Other beliefs remained unchanged | ➢ Only one participant |
| Instrument | Study | Results | Limitations |
| Questionnaire | Urmston (2003) | ➢ Significant change on certain beliefs<br>➢ development of a more precise teaching philosophy | |
| | Mattheoudakis (2007) | Progressive development in beliefs from one year to another | ➢ No control of the courses assisted by each participant each year |
| A sequence of three semi-structured interviews<br>Observation | Cabaroglu and Roberts (2000) | ➢ Nineteen out of the 20 participants witnessed gradual change in beliefs and only one participant resisted change | |
| Observation | Da Silva (2005) | ➢ Application of the course content in teaching practices | ➢ One instrument as indirect report on beliefs<br>➢ Observation videos were observed by the participants for writing a reflection |
| Questionnaire<br>Discussions between the tutor and the trainees<br>Observation | Richards, Ho and Giblin (1996) | ➢ Emergence of different beliefs such as those in relation to participants' conception of their role in the | ➢ Only five pre-service teachers as participants<br>➢ Observation videos were observed by the participants for writing a reflection |

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| | | classroom | |
| Questionnaire<br>Interviews<br>The researcher's field notes<br>Video-recordings of teaching practices<br>Lesson plans | Ho Yan Mack (2011) | ➢ Reinforcement and elaboration of some beliefs<br>➢ Immergence of new issues (clear change)<br>➢ Some beliefs remained static (no change) | ➢ Only one participant<br>➢ The participant was informed that the study aimed at evaluating her development during the program<br>➢ Social desirability<br>➢ Video-recordings were observed by the participants for writing a reflection |
| Interviews<br>Observations of an experienced<br>Questionnaires<br>Lesson plans | Borg (2005a) | ➢ Development in certain beliefs<br>➢ Other beliefs remained unchanged | ➢ Only one participant |

*2.5.2.3 Second language and corrective feedback teachers' beliefs studies*

Studies targeting the effects of teacher training programs on L2 teachers' beliefs including CF and CF beliefs particularly interested several researchers. These studies found either resistance or change in teachers' beliefs, with the majority reporting change or development in these beliefs. Examples of these studies are provided below, beginning with L2 studies targeting some CF beliefs and followed by CF studies which are the focus of this study. At the end, L2 and CF teachers' beliefs studies are summarised together in one summary table.

***Second language teachers' beliefs studies***

Teachers' beliefs interested particularly L2 researchers. Several studies were conducted to investigate the effects of teacher training programs on L2 teachers' beliefs. These studies are presented below, following the same methodological order as language studies (i.e., surveys studies, then, studies that used surveys beside interviews or other instrument, and at the end studies that used multiple measures including observation). Among other beliefs, these studies explored certain CF beliefs, the reason why they are presented with CF beliefs studies which are the focus of this study.

Over a period of three years, Peacock (2001) examined and observed the effects of a teacher education program on pre-service teachers' beliefs about L2 learning. Participants were 146 undergraduate teacher trainees enrolled in TESL teacher training programme at the University of Hong Kong. To elicit trainees' beliefs, Horwitz's (1985) BALLI questionnaire was utilised. The questionnaire contained 34 items distributed through five categories: nature of language learning, difficulty in learning languages, foreign language learning aptitude, pronunciation, and language learning strategies. The questionnaire was administered twice, that is, one time before the training and another time to different cohorts during their training (i.e., first year, second year, and third year trainees). After collecting the questionnaire data, the researcher showed the trainees their questionnaire results, and gave them five readings which indicated the advantages of communicative approaches to ESL teaching. Classes were split into two groups, and each group focused on one theme, either What have I learned from the communicative approach? or What are the pros and cons of the communicative approach? Finally, the trainees were shown videos of two successful communicative lessons in different schools. However, in this study,there is no detailed information about the content of the training.

Data of the questionnaire were analysed through descriptive statistics as trainees' beliefs during the first year were compared to those of the second and third year. Rather, the researcher administered the same questionnaire to different groups at different stages of the teacher training program (first year students versus second year students versus third year students) in order to track any development or changes in beliefs. Results showed no significant development or change in the trainees' beliefs that differed from ESL teachers' beliefs over the three years of the study; that is, those beliefs were judged to be resistant to develop. However, a small development was tracked in three beliefs – beliefs about vocabulary, beliefs about grammar, and beliefs about the role of intelligence in language learning.

Nonetheless, looking at individual development among teachers would be interesting in that the whole group development could hide individual developments (Cabaroglu & Roberts, 2000). In addition, while this cross-sectional study allowed the researcher to gather data about teacher trainees' beliefs at different stages, the obtained results could not be attributed solely to training. A myriad of other factors can be at the origins of this difference especially students' initial beliefs. Findings of research that does

not take into account teacher trainees' initial beliefs cannot provide clear-cut evidence about development in those beliefs as a result of training.

Similar results were reached by MacDonald, Badger and White (2001) who examined the effects of an SLA course of theory and research on the language learning beliefs of student teachers in a centre for English language teaching (TESOL) which was part of the University of Stirling Institute of Education in Scotland, UK when the study was conducted. The study also aimed to respond to the student teachers' common perception that research and theoretical courses of their training programs are over theoretical and without any relationship with classroom practice. Two groups of student teachers in Scotland University (UK) participated in this study; an experimental group and a control group. The experimental group (n=55) consisted of student teachers at Scotland University aimed to become teachers of English to students who speak other languages than English (TESOL). The experimental group consisted of two sub-groups; the first sub-group (n = 28) consisted of B.A undergraduates who had already passed one year studying communicative language teaching; the second sub-group (n = 27) included M.Sc. postgraduate students teachers, mostly non-native speakers who directly came from their home land. The two experimental sub-groups' programs included an informal SLA course based on discussions; the course was of 12 weeks (three hours a week) and was evaluated using an exam of three hours and two essays. In the undergraduate program, the SLA course is a part of three years B.A program and was offered in the second year. In the postgraduate program, the SLA course was offered at the first semester of M.Sc. in (TESOL). In addition to the experimental group, there was a control group of 25 undergraduates drawn from a B.A. course in English as a Foreign Language and an Initial Teacher Education program which did not feature a course in SLA. It is important to note that the control group neither followed a specific training on language learning pedagogy nor an SLA course. To report on the teachers' beliefs, the researchers used a questionnaire adopted from Lightbown and Spada (1993). The questionnaire consisted of 12 items that targeted beliefs on language learning and was administered for the experimental and the control group twice, i.e. at the beginning and at the end of the SLA course. The undergraduate SLA course contained eight elements: a) learning a first language, b) social aspects of interlanguage, c) discourse aspects of inter language, d) psycholinguistic aspects of inter language, e) linguistic aspects of inter language, f) individual differences in L2

acquisition, g) interaction in language learning, h) instruction and L2 acquisition. On the other side, the postgraduate SLA course included the following nine components: a) first language acquisition, b) error analysis and language transfer, c) interlanguage, d) monitor model, e) learner differences, f) input in language learning, g) interaction in language learning, h) learner strategies, i) teaching and language learning.

Data of the questionnaire was analysed using Wilcoxon Signed Ranks Test Asymp. Sig. (2-tailed) (Kinnear & Gray, 1997). At the beginning of the course, no significant differences were found between the experimental and the control group. However, a significant difference on certain items was found between the two experimental subgroups at the beginning and at the end of the SLA course. These items were; CF and the relationship between language teaching and language learning. As an example, at the beginning of the course, the undergraduate subgroup agreed more than the postgraduate subgroup on immediate CF, and however, at the end of the course, the two subgroups reinforced these beliefs significantly. That is, their agreement on immediate CF augmented significantly. Besides, minor differences on four categories were found between the two experimental subgroups. The categories are; a) behaviourist view of language learning, b) statements relating to the grammatical sequencing of language teaching, c) statements relating to learner variations, d) statement relating to learner-learner interaction.

It is important to note that, despite the fact that student teachers were not in favour of SLA theory and research, their beliefs changed significantly at the end of the course. However, student teachers were not aware of the change that occurred, as reflected in their oral and evaluation commentaries at the end of the course. Thus, the researchers assumed that student teachers may be either unconscious of these changes or that they undervalued the change that had occurred. For the control group, no significant changes were found from the beginning to the end of the semester.

Brown and McGannon (1998) examined the effect of a teacher training course (a practicum) on student teachers' beliefs about language learning. A group of 35 student teachers (pre-service teachers) participated in the study. They were taking a graduate diploma in education at the University of Monash. Thirty of the participants had a certain experience in teaching languages. At the moment of the study, the participants were composed of two groups; one group of 23 TESL students (Teaching English as a Second

Language) and one group of 12 student teachers of LOTE (languages other than English) who were following a teacher training program. To elicit data about teacher beliefs in relation to language learning, two instruments were used; a questionnaire from Lightbown and Spada (1993) and reflexive journals about the practicum. Over a period of three weeks, the questionnaire was administered twice (before and after a teaching practicum). The questionnaire consisted of 12 items that represented hypothesis about language teaching and learning and covered eight areas including CF. Reflexive journals were written by the student teachers after the practicum. Results of the questionnaire and the reflexive journals indicated that the experience gained by the students over the practicum affected some of their beliefs by either changing some or reinforcing others. In the TESL group, experience gained from the practicum changed their beliefs about CF. In the first administration of the questionnaire, the majority of TESL students believed that correcting immediately students' errors is not a good thing. However, at the moment of the second questionnaire, they estimated that errors must be corrected immediately. In the LOTE group, participants were divided about the effectiveness of immediate CF, but, later on the second administration of the questionnaire, most students agreed about the effectiveness of immediate CF.

While acknowledging the significance of the obtained results, caution is warranted. That is, using a single instrument to measure teachers' beliefs (i.e., questionnaire) could not be sufficient, that is; adding other instruments to report on teachers' real beliefs would enrich the questionnaire data. Bush (2010) examined the effects of an SLA course on the beliefs of 381 pre-service teachers over a period of three years at a state university in California. A TBALLI questionnaire adopted from Horwitz (1988) had been completed at the beginning and at the end of the course to report on any change or development in the participants' beliefs. The questionnaire contained 23 items and covered five categories. The categories included difficulty in learning second languages, the role of aptitude in foreign languages, nature of language learning, and strategies of communication. To identify the reasons for any change in beliefs, written explanations by the participants about reasons of change or lack thereof were added. It is important to note that the questionnaire and the reflexive writings represent 5% and 65%, respectively, of the course's final grade. The SLA course included several activities, such as experiential and reflective activities, tutoring, and analysing language samples of an ESL student.

Data of the questionnaire were analysed using a t-test paired sample to identify any change in the whole group's beliefs. In general, changes in the teachers' beliefs were observed on 16 items out of 23 of the questionnaire. Three types of change were tracked: a) a complete change of responses; b) little change; and c) feeling more confident about giving a more educated answer. Significant change was tracked in some aspects of the questionnaire such as the role of CF and grammar in language learning and the nature of errors (item 7 and 14). In item 7, "You shouldn't say anything in English until you can say it correctly," seven participants changed their beliefs from agree to disagree. These teachers explained that, now, they recognize "that errors are part of the learning process" (p. 330). As an example, one teacher stated that "if I didn't say anything in Spanish until I could say it correctly, I would have just started talking and it's the end of the semester" (p. 330). In item 14,"If beginning students are permitted to make oral errors in English, it will be difficult for them to speak correctly later on", there were 36 reversals from agree to disagree. In their written explanations, student teachers declared that CF is a natural process in language learning – a concept reflected in the course. Thus, student teachers attributed changes in their beliefs to the content and the activities of the SLA course. The coming section describes the only one study that used multiple measures to report on beliefs.

Kerekes (2001) investigated the effects of an SLA course on in-service teachers' beliefs about teaching. The study aims to show how the teachers' thinking about teaching developed as a result of taking the class and of investigating empirical questions about their own students' SLA. The study investigated also how the teachers integrate SLA theories in their teaching strategies. Participants were a group of 22 experienced teachers. Six of the 22 participants had certain research experience as graduate students, as five of them had completed an M.A in domains related to education. Data for this study came from four sources: 1) three series of questionnaires, 2) participant observation, and 3) missions (assignments), 4) semi structured interviews.

The questionnaires were used to track any change in the teachers' declared beliefs as a result of the SLA course and as a reason of applying what they have learned in their classes due to action research and other activities. It examined also teachers' attitudes towards SLA research and its pertinence to their work. The three questionnaires consisted of 12 items on language learning -adopted from Lightbown and Spada (1993) - to which

participants provided written explications. The questionnaire was administered three times: a month before the starting of the SLA course (preparatory questions), immediately after the end of the SLA course (post-questions), and five months later after the end of the course. Before the SLA course, the researcher did a participant observation in the classes of six of the 22 teachers. During the observation, the researcher took field notes and observed teachers' teaching approaches and their students' use and development of L1 and L2 through individual conversations. At the end of the observation, he conducted semi-structured interviews with the six teachers. The interviews turned around the teachers' teaching strategies, their students and why they believe or not that SLA theory and research could help them in their profession. Besides questionnaires, participant observation and interviews, some assignments were undertaken to assess the impact of SLA theories on the teachers' practices. In these assignments, the teacher trainees carried an action research in order to apply research and theories seen in the course. Each participant carried out a case study on two of his/her students with contrasting needs or background. They had to analyse language production and pronunciation samples of their students. In addition, they observed L1 development of a child aged from 2-5 years. In addition to all these tasks, participants realised auto-reflection tasks (i.e., reflections on their own language learning experiences and describe their actual classes). It is important to note that assignments, in particular tasks and classroom discussions were tailor made based on the participants' observation results.

Data of the questionnaire were analysed descriptively. In addition, the 12 common items discussed by the teachers were divided into two parts: 1) How their thinking about language and L2 development evolved, and 2) What they said they wanted to learn from SLA, in terms of knowledge or strategies for improving their teaching and their students' learning. To obtain a general idea of the teachers' beliefs and see if these beliefs had changed as a result of the SLA course, common beliefs were targeted.

Results revealed that the teachers become more sceptical about common beliefs. That is, the agreement degree had diminished from pre to post questionnaire on 11 out of the 12 items. It is important to note that the biggest differences were found in items that tackled CF. These items concerned the beliefs that most of the errors which second language learners make are due to interference from their L1, that parents usually correct

young children when they make grammatical errors, and that learners' errors should be corrected as soon as they are made in order to prevent the formation of bad habits.

From the six teachers who responded to follow up questions, two exhibited significant reversion to initial beliefs held before they took the SLA course, while four presented great stability in their beliefs. The researcher presented in details the results of one teacher from each category (i.e., Melissa and Kate). Melissa did not revert to her initial beliefs with regard to all aspects of SLA about which she had learned. However, she exhibited a diminution in agreement from pre to post questionnaire and she returned to the same rate of the pre questionnaire in the last follow up questionnaire, this was particularly the case for items tackling CF. In addition, she acknowledged that "she was making more frequent use of cooperative learning activities, as a result of what she had learned in her SLA class". Kate seemed less effected by the SLA course, showing stability in her beliefs. She showed a diminution in agreement for item 2 (parents usually correct young children when they make grammatical errors). In addition, she manifested stability in agreement for items 6 (most of the mistakes which second language learners make are due to interference from their first language) and 9 (learners' errors should be corrected as soon as they are made in order to prevent the formation of bad habits), targeting CF.

However, in this study, only six teachers out of 22 teachers completed the last questionnaire. In addition, there was no observation after the last questionnaire, and thus it is difficult to confirm the post- course beliefs reported through the questionnaire. Despite these limitations, this study- unlike the ones mentioned above-used several instruments (i.e., questionnaire, observation and interview) to report on the teachers' beliefs. To summarise, a small number of studies investigated teachers' beliefs about L2 teaching and learning, namely Peacock (2001), McDonald, Badger and White (2001), Brown and McGannon (1998), Bush (2010), and Kerekes (2001). Furthermore, few of these studies tackled CF beliefs within other L2 beliefs (Brown & McGannon, 1998; Bush, 2010; Kerekes, 2001; McDonald et al., 2001). These studies reported some change in teachers' CF beliefs as expressed through questionnaire items. For example, McDonald et al. (2001) found that the two experimental groups agreed more about immediate CF at the end of the course. Brown and McGannon (1998) found that, at the beginning of the course, the participants did not believe in immediate CF. However, at the end of the course, they estimated that errors must be corrected immediately. Bush (2010) and Kerekes (2001)

found the same results (i.e., significant change in the participants' beliefs about CF). However, it is important to note that, the focus of these studies was not CF but L2 teaching and learning. In addition, these studies tackled CF beliefs only in some questionnaire items and did not use other tools for further investigation of these CF beliefs. The following section presents studies that investigated development in teachers' CF beliefs as a result of CF training programs.

***Corrective feedback teachers' beliefs studies***

Very few experimental studies had investigated directly the effects of training programs and courses on pre-service or in-service teachers' beliefs about CF. Vasquez and Harvey (2010) for example investigated directly change in teachers' beliefs about CF. In a case study, Vasquez and Harvey (2010) evaluated the effect of students' participation in a classroom research replication on their beliefs about CF. The study took place in a large public research university in the south-east of the USA. Participants were nine graduate applied linguistics students (four Ph.D. and five M.A.). The group comprised teacher trainees as well as practicing teachers who were doing graduate studies. In conjunction with the SLA course, the students followed a teaching practicum in the ESL program of the university. The teaching practicum required that the students videotape their teaching of the ESL course and that they produce a written reflection based on their watching of the videos.

The participants realised a partial replication of Lyster and Ranta's (1997) study on the identification and frequency of CF techniques in some of their ESL classes. On the first day of the SLA course, the participants completed the pre-course questionnaire and were informed that they will realise a partial research replication in relation to classroom interaction. After that, the participants were divided into four groups, and each group had at least one member who teaches a course of English as a second language in the ESL program. Hence, the videotaped recording constituted the data base for the research replication. To assess the effects of the research replication on the participants' beliefs, pre- and post-course questionnaires were used. In addition, other data sources were added, including reflexive journals written throughout the whole semester by the participants, and a semi-structured interview that elicited participants' attitudes towards the course and the research replication. The pre- and post-course questionnaires consisted of several open

questions and short items on a Likert scale which targeted mainly CF. Data were analysed descriptively. Results revealed a change in the participants' understanding of the role of CF. That is, at the end of the course, the participants developed a more complex understanding of the role of CF. In addition, there were changes in the participants' views about CF. As an example, some participants –those in the pre-questionnaire – believed that CF has negative effects (such as causing frustration) on language learners. However, in the post-questionnaire, none of these participants had addressed this affective notion of CF; instead, they concentrated on other aspects of CF, such as different CF types. One of these participants highlighted this change in his/her reflexive journal:

> I used to believe that error correction can be discouraging, useless, and even detrimental during the communicative activities. However, I now think that I should consider developing systematic error correction strategies for the common student errors. (p. 429-430)

In addition, three M.A. participants in the post-questionnaire stated that pushing learners to produce the correct form (elicitation) could be more effective than providing them the correct form, a perspective that was absent in the pre-questionnaire. To summarize the results, participants had expanded their view concerning CF, and started considering other dimensions about it. In addition, certain participants stated that they made discoveries about the advantages of research.

Baleghizadeh and Rezaei (2010) investigated an Iranian pre-service teacher's beliefs about CF at the Iran Language Institute (ILI). This volunteered pre-service teacher participated in the study before and after taking a teacher training course in (ILI). A questionnaire and an informal interview were used only before the training course-to elicit the participant's beliefs about CF and the source of these beliefs. The questionnaire mainly elicited beliefs about the role of CF such as self-correction, peer correction, CF techniques, timing of CF, oral/written CF and sources of teachers' beliefs.

Two weeks after the end of the course, a non-participant observation was conducted when the participant was officially employed as an English teacher at the ILI. The objective of that observation was to see any change in the pre-service teacher's beliefs after the training course. Results of the questionnaire and interview revealed that, in relation to self and peer correction, the participant preferred providing CF than self and peer

correction. Furthermore, regarding CF techniques, the participant believed that recasting is the best CF technique and that other techniques are not suitable in that learners are not able to self-correct. In relation to timing, the participant preferred immediate CF. Regarding oral and written CF, the participant admitted that they facilitate language learning.

However, in this study, the questionnaire and the interview were administrated only before the training course, that is there was no administration of these same tools after the training course. Thus, it is difficult to compare pre and post course beliefs or to report change in the pre-service teacher's beliefs about CF. On the other hand, observation was administered only after the training course and thus it is difficult to know the student teacher's pre-course actual teaching practices of CF. Furthermore, the authors confirmed change in the student teacher's beliefs without giving any detail about the nature of this change. Besides, there is only one participant in this study, adding more participants would allow generalisation of the results.

Kamiya and Loewen (2014) investigated the impact of reading academic articles about oral CF on the CF beliefs of one experienced ESL teacher. This case study was conducted at an intensive English program (IEP) at a large American university. The teacher who participated in the study is a native speaker of English and had 14 years of teaching experience. To investigate the impact of reading three CF academic articles on the teacher's stated beliefs, two semi-structured interviews were conducted, one before and one after reading the articles. The first interview was conducted before reading the articles and targeted basically general beliefs about the teacher's L2 learning and teaching experiences, his L2 teacher training, and his recent teaching environment. Additionally, he was asked about his stated beliefs in relation to L2 teaching in general and CF in particular. After administrating the 1st interview, the teacher was given three academic articles and a PowerPoint file (summarising the articles) that targeted CF. The articles are Lyster and Saito (2010), Truscott (1999), and Mackey, Gass, and McDonough (2000), they tackle different issues about CF. The teacher was asked to read the articles in a period of three weeks after which a second interview was conducted. During the 2nd interview, the teacher was asked more specifically about CF. The interviews were transcribed and were analyzed using a content analysis. Results revealed that the teacher's stated CF beliefs prior to reading influenced the way he processed the articles. That is, he focused on claims and findings that supported his prior CF beliefs. As an example, he agreed with items and

findings dealing with the effectiveness of CF and eliminated negative statements about the use of CF. The readings seemed to raise the teacher's awareness about CF rather than changing his CF beliefs.

However, in this study only one instrument was used to report the teachers' beliefs (i.e., interview), adding more instruments such as questionnaires would enhance the interview data and confirm development in beliefs. Furthermore, adding other elements such as training courses and confrontation of the teacher' beliefs besides reading articles would affect more the teachers' beliefs and could go beyond awareness- raising to belief change. Besides, adding more participants would enhance results generalisation.

#### 2.5.2.4 Summary

Teacher education programs attempts to develop and change teachers' beliefs confirm again the significance of the teacher beliefs, and shows that teaching is above all a 'cognitive activity' (Borg, 2003a). The importance of teachers' beliefs is due to their capacity in guiding teachers' practices. That is, once the source (teacher beliefs) is developed during training programs, it becomes easy to integrate or develop new practices. However, it is important to note that change in practice (i.e. adopting new practices via teaching experience) could lead to change in beliefs. Indeed, several considerations could be drawn from the above studies that investigated the effects of teacher training programs on L2 teachers' beliefs including CF. Studies that tried to develop, and change teachers' beliefs about CF-among other beliefs- are relatively scarce (Baleghizadeh & Rezaei, 2010; Brown & McGannon, 1998; Bush, 2010; Kamiya & Loewen, 2014; Kerekes, 2001; MacDonald, Badger & White, 2001; Peacock, 2001; Vasquez & Harvey, 2010). Most of the above studies reported teachers' stated (declared) beliefs by using questionnaires or interviews and rarely used a combination of these two instrument. Furthermore, adding more instruments could give greater insights and confirm belief change.

As mentioned above, these studies provided some evidence of changes in teachers' beliefs in general and pre-service teachers' beliefs in particular-though not in all cases, and that changing teachers' beliefs can be difficult but never impossible (Richardson, 2003). However, it is important to note that, if a change occurs in some student teachers' beliefs, other beliefs could remain unchanged. Also, the degree of change in beliefs may vary considerably between teachers, i.e. some might undergo either little or radical change.

Furthermore, the majority of these studies reported belief change of the student teachers group as a whole; they seldom treated individual change on each student teacher's beliefs. Table 5 summarises the above studies by precising the type of training they used and the instruments that have been used to report on beliefs along with methodological limitations.

However, it should be noted that change in the beliefs of a group of student teachers does not mean that all student teachers in the group had changed their beliefs. This is why Cabaroglu and Roberts (2000) had stated that group studies can hide individual changes in teachers' beliefs, in that they represent the whole group's change (as in questionnaires). In addition, it is important to note that, if a change had occurred in some beliefs, other beliefs may need more time to be changed, or may even remain static. Besides, change in beliefs would imply some conditions be met or techniques be utilized, as mentioned earlier in this paper. For example, after identifying the teachers' initial beliefs, educators should make explicit the teacher beliefs and verbalise them, and confront the teacher beliefs through exposing them to research results in order to create un-satisfaction in the teachers' initial beliefs. The present study will follow this procedure to change or develop pre-service L2 teachers' beliefs about CF through a pre-service teacher training course. Studies on the effects of teacher education on teachers' beliefs about L2 and CF are summarised in Table 11.

Table 11

*Summary of Studies on the Effects of Training on Teachers' Beliefs about L2 and CF*

| Instrument | Study | Type of training | Results | Limitations |
|---|---|---|---|---|
| Questionnaires | Peacock (2001) | TESL teacher training programme without practicum | No significant change in beliefs | - Used only one instrument to report on beliefs (questionnaire)<br><br>- There was no confrontation of teachers' beliefs |
| | MacDonald, Badger and White (2001) | | Change in beliefs varying from significant to minor<br><br>Significant (reinforcement in beliefs) in relation to | |

| | | | | |
|---|---|---|---|---|
| | | | immediate CF | |
| Questionnaire<br>Reflexive journals | Brown and McGannon (1998) | SLA course of theory and research without practicum | Reinforcement and change of some beliefs.<br><br>The majority of participants changed their beliefs to a more positive position about immediate CF | - There was no confrontation of teachers' beliefs<br><br>- The questionnaire and the reflexive writings were assessed for the course in Bush (2010) |
| | Bush (2010) | SLA course (experiential and reflective activities, tutoring, and analysing language samples of an ESL student) | | |
| Questionnaire<br>Reflexive journals<br>Group interviews | Vasquez and Harvey (2010) | SLA course with a teaching practicum | Change in the participants' understanding of the role of CF<br><br>Changes in the participants' views about CF (to a more positive view) | - There was no confrontation of teachers' beliefs |
| Questionnaire<br><br>Interviews<br><br>Observation | Baleghizadeh and Rezaei (2010) | Teacher training course on CF | A general change in beliefs without details | - There was only one participant<br><br>- There was no control group<br><br>-The questionnaire and interviews were administered only before training<br><br>-Observation was administered only |

| | | | | |
|---|---|---|---|---|
| | | | | after training |
| Interviews | Kamiya and Loewen (2014) | Corrective feedback academic articles | Raise the teacher's awareness about CF | - Used only interviews<br><br>- There was no confrontation of teachers' beliefs<br><br>- There was only one participant<br><br>- There was no control group |
| Questionnaires<br><br>Participant observation<br><br>Semi-structured interviews<br><br>Assignments (action research realised by the teachers) | Kerekes (2001) | SLA course without practicum | Change as decrease in agreement of 11 out of 12 questionnaire items especially those in relation to CF (e.g., immediate CF) | - Only six teachers out of 22 completed the follow up questionnaire<br><br>-There was no observation after the follow up questionnaire |

In light of the above literature review on teachers' beliefs, it is obvious that researchers used a variety of methodological tools to report on teachers' beliefs, such as questionnaires, interviews, observations...etc. In contrast, there are few studies that discussed approaches used to investigate beliefs (Barcelos,2003; Borg, 2006). The next section displays all approaches used to investigate beliefs through literature.

### 2.6 Approaches used to Report on Teachers' Beliefs

To date, there have been two recent reviews on methodological issues in the investigation of beliefs about SLA, namely Barcelos (2003) and Borg (2006). Barcelos (2003) identified three approaches to investigate learner beliefs: (1) the normative approach, in which beliefs are seen as general and fixed, and in which beliefs are identified through questionnaires; (2) the metacognitive approach that views learners' belief systems as 'theories in action' and which uses interviews to report on beliefs; and (3) the contextual

approach, in which learner beliefs are seen as varying according to context. This third approach involves a variety of data collection methods that permit data triangulation. The current study uses questionnaires and interviews to report on teacher beliefs.

In Borg's (2006) study four groups of approaches commonly adopted in reporting on teacher cognition and beliefs are analyzed. These approaches include self-report instruments, verbal commentaries, observation, and reflective writing. Table 12 presents Borg's taxonomy.

Table 12

*Data Collection Methods in Language Teacher Cognition Research (Borg, 2006)*

| Category | Goal | Methods |
|---|---|---|
| Self report instruments | To measure teachers' theoretical orientations, beliefs or knowledge about an aspect of language teaching | • questionnaires<br>• scenario rating<br>• tests |
| Verbal commentaries | To illicit verbal commentaries about teachers' beliefs, attitudes, practical theories and related mental constructs | • structured interviews<br>• semi-structured interviews<br>• scenario-based interviews<br>• repertory grids<br>• stimulated recall<br>• think aloud protocols |
| Observation | To collect descriptions of real stimulated planning and teaching which can be compared to previously stated cognitions and/or provide a concrete context for the subsequent elicitation of cognitions | • unstructured observation<br>• structured observation |
| Reflective writing | To elicit through writing tasks teachers' perceptions of their experiences, beliefs and knowledge of the concepts they associate with particular aspects of language teaching | • journal writing<br>• biographical accounts<br>• retrospective accounts<br>• concept maps |

Using a pre-test-post-test design, the present study investigates the effect of an initial teacher education course on FSL pre- service teachers' beliefs about CF. This research design took into account some of the gaps in previous studies such as using confrontation of student teachers' beliefs and using two instruments to report on beliefs

(questionnaires and interviews). Finally, a conceptual framework and different variables of the study are illustrated in Figure 3.

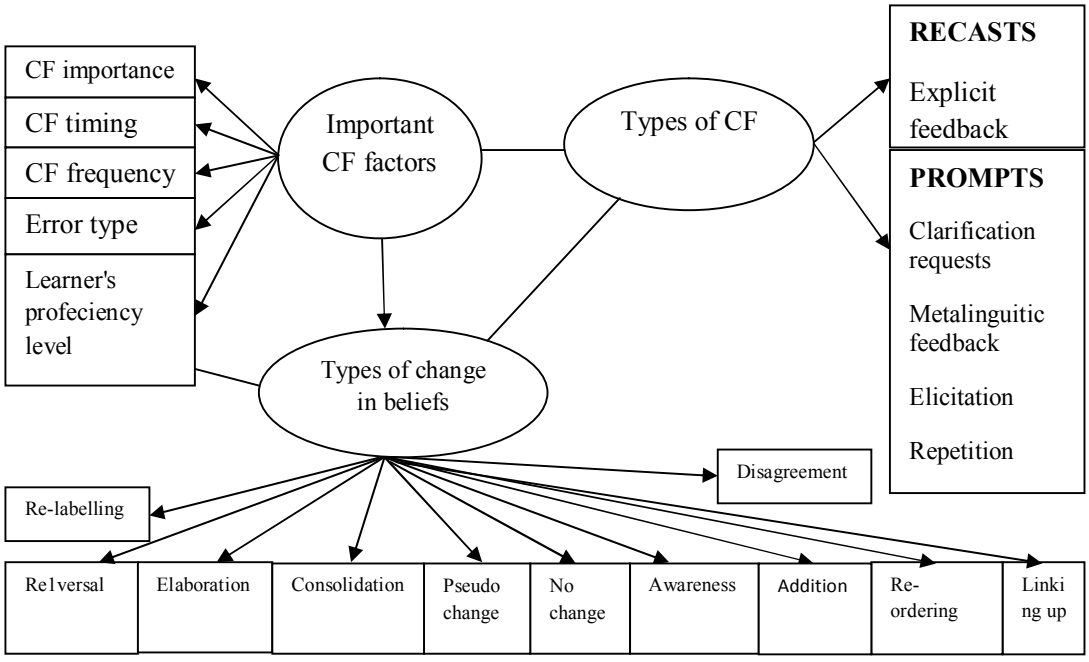


*Figure* 3. Conceptual Framework and different Variables of the Study

## 2.7 Research Questions

Even though CF was proved effective for L2 (Ammar & Spada, 2006; Ammar, 2008; Dilans, 2010; Ellis, Loewen & Erlam, 2006; Lyster, 2004; Yang & Lyster, 2010), little has been done to report on L2 teachers' beliefs about it, hence the relevance of the first research question.

R.Q.1: what are the initial beliefs of FFL Algerian student teachers about CF?

The majority of studies that investigated teachers' beliefs about CF are purely descriptive (Basturkmen et al., 2004; Hassan, 2011; Kamijo, 2004; Kartchava, 2006; Mori, 2002; Schulz, 2001). Indeed, studies that investigated the effect of teacher education courses on pre-service and in-service teachers' beliefs about CF are very scarce (Vasquez

& Harvey, 2010). Hence, the goal of the current study is to help bridge this gap in the existing literature. More specifically, this study investigates the effects of a CF teacher training course on FFL Algerian student teachers' beliefs about CF.

R.Q.2: What are the effects of a CF training course on Algerian FFL student teachers' CF beliefs?

Teacher training courses, programs and practicum are crucial in pre-service teachers' career. They are occasions for them to acquire new information and update existing one, bring out and discuss their existing beliefs, and develop or change some of their beliefs. After investigating the effects of the CF training course-if any- on Algerian student teachers' beliefs about CF, this study looks for parts or dimensions of the CF training course (i.e., agent of change) responsible for that change or development.

R.Q.3:What are Algerian FFL student teachers' perceptions ofparts and aspects of the CF training course responsible for change in their beliefs about CF?

# CHAPTER 3: METHODOLOGY

This chapter will address the methods used to investigate the effects of a pre-service teacher training course on the beliefs of FFL Algerian student teachers regarding the use of CF. It begins with a description of the research design and context, participants and the CF training course. Then, the chapter goes to describe the data collection instruments (the questionnaire and the interview) and details about how the questionnaire was validated and used, and how the research was conducted. Furthermore, the chapter also addresses approaches that were employed for data analysis.

## 3.1 Research Design

In relation to its objective, this research is experimental in that it investigates the effect of a teacher training course on pre-service teachers' beliefs about CF. Moreover, it used a pretest-posttest design to measure the effect of the training course on these beliefs, and for that aim, it included a control group that did not received the treatment (i.e., training course). A convergent parallel mixed methods approach in which both quantitative data (questionnaire) and qualitative data (focus-group interviews) were collected, analyzed separately and then compared was adopted (Creswell, 2013). More specifically, the present study used principally a questionnaire to report on student teachers' beliefs about CF as well as to measure development in these beliefs if any after the student teacher's participation in a teacher training course designed to rise and enrich their awareness on CF. In addition, the study used another instrument (i.e., focus group interview) to support the questionnaire data. This instrument would tell us more about the development in the participants' beliefs if any, the nature, the type of this development and the reasons or what aspects of the course caused this development. These two different data sources are used in order to "elaborate, enhance, illustrate, or clarify one another" (Greene, 2001, p. 253). The following section describes the context of the study.

## 3.2 Research Context

This study targets Algerian preservice teachers of FFL since the majority of the studies that targeted the effects of training programs on the teacher beliefs have been dealt with teachers of English as L2 or FL. Furthermore, and as stated earlier in this document,

Algerian school learners (elementary, middle school and secondary) have difficulties in learning French due to the differences between Arabic and French language systems. As a result, Algerian learners make lot of errors while learning (Amara, 2001) and today Algerian researchers start to pay attention and concentrate on this subject when investigating methods of teaching oral French. The present study is conducted with Algerian FFL preservice teachers of a second year of Master (MA) in the University of El Hadj Lakhdar situated in the region of Batna in east Algeria in the winter session. These FFL students of MA get specialised in their second (i.e., last) year of MA studies in either of two specialities (Didactics or Language Sciences). Student teachers from the Didactics cohort -and not the Language Sciences cohort- were chosen as subjects of the study. Thus, 28 student teachers (8 male and 20 female) in the didactics cohort were chosen.

### 3.3 Participants

The 28 participants in this study came from an Algerian University (University of El Hadj Lakhdar Batna) situated in the east of Algeria, precisely in a region called Batna. Fourteen out of the 28 participants formed the experimental group who followed the training course, and the rest 14 participants formed the control group who did not attend the training course. However, it is important to note that the whole Didactics cohort (i.e., 60 student teachers) besides other 40 FSL teachers served to validate the questionnaire factors (the principal data collection tool used in this study). That is, the 60 student teachers -including the 28 who participated to the whole study- responded to the questionnaire at the beginning of the study. It is important to note that the 14 experimental group participants were asked -at the beginning of the 1st focus group interviews-to report if they have a certain teaching experience. Two participants (females) reported having some teaching experience and occupying teaching positions at the time of the study. One of these two has been teaching for five years as a part-time teacher at the university (department of history) and the other for three years as a teacher in a private school. The 28 participants are student teachers in the department of FFL in the Faculty of Literature and Foreign Languages. When the intervention started, participants were in the second year of their two-year graduate teacher training (MA) corresponding to their fifth year of FFL university studies (3 years of Licence studies + 2 years of graduate teacher training). They had already finished the program's course component but had not started the thesis part when the intervention took place. However, it is important to mention that this two year

graduate teacher training program does not include a practicum. Student teachers in the department of FFL are specialised in either of two specialities; Didactics of FFL or Language Sciences. Student teachers from the Didactics cohort -and not the Language Sciences cohort- were chosen as subjects of the study in that they have certain knowledge about the methods of teaching of FFL and that they have already took a course of teaching oral FFL. This would allow them to rely on and compare the aspects seen in the training course with those they were taught in their courses of MA.

### 3.4 Description of the CF Training Course

The CF training course was designed to raise preservice teachers' awareness about CF. It provided an introduction to theory and research in oral interaction and CF and a CF practical component (oral interaction activities) to pre-service teachers. The training course included three parts- two theoretical and one practical.

The first theoretical part of the course constitutes an introduction (i.e., preparation) to the CF course. It targeted the importance and the place of oral interaction in promoting fluency and accuracy judged essential for L2 and FL learning. This part targeted also the basic principles of an interaction activity such as image- based activities with a focus on the alibi game. More essentially, it presented all the six CF techniques in relation to the three error types (i.e., grammatical, lexical and phonological) with examples; it also described a categorisation of these techniques.

The second theoretical part of the course constitutes the heart of the course. It presented an overview of empirical CF studies (methodology and results) in relation to different CF studies and their dimensions such as the distribution of the different CF techniques and the uptake they resulted in (Lyster & Ranta, 1997; Sheen, 2004); the distribution of the CF techniques in relation to error type (Mackey et al., 2000); the effects of the CF techniques (i.e., recasts and prompts) (Ammar & Spada, 2006); and the effects of the different CF techniques in relation to learners' proficiency level (Ammar & Spada, 2006).

The third part of the course (i.e., the practical component) comprises in its turn two parts: implementing an oral interaction activity once at the beginning of the intervention and once more at the end. While the first served to identify students' pre-existing beliefs

and was used as the basis of subsequent discussions, the second aimed to help learners put to practice their new beliefs. That is, in the first teaching activity, participants were asked to implement oral interaction activities with a group of first year Licence students of FFL in the same university. These activities were meant to gauge the student teachers' pre-intervention CF practices. For technical reasons the data from the observation of this pre-training teaching could not be analysed because most of the interactions were barely audible. On the other hand, the second teaching activity, served as an application of what was seen in the two preceding theoretical parts. More precisely, the student teachers implemented different oral interaction activities (e.g. find the differences and the alibi game that were already explained in details through the first theoretical part of the course). The "find the differences" activity elicits question forms and the alibi game elicits question forms and past tense. For "find the differences" task, the teacher educator of the course held a picture of a street scene and all the participants held the same picture with some differences and were invited to ask questions to find the differences between the two pictures. During this activity, the role of the teacher educator consisted in providing the appropriate CF when it is necessary. However, it is important to mention that, although the student teachers are MA students, they still make some language errors. However, in the alibi game, the role of the participants differed from that in spot the difference task, that is, few of them played the role of the teacher (five participants) in this activity in managing the activity and providing CF, and the rest of them acted as learners in asking and responding to questions. Those who acted as learners were required to produce intentionally a variety of oral production errors, while those who played the role of teachers were asked to stay outside the class to not hear this conversation. However, it is important to mention that those who played the role of the teacher were given the liberty to manage the activity without any restriction or special requirements.

Care was taken to design the experimental intervention according to theoretical and empirical recommendations raised in chapter 2. As explained above, from the onset of the intervention students engaged in some oral interaction activities in which they some of them played the role of the teacher. This activity served to identify the participants' pre-existing beliefsespecially that these beliefs act as "selective filters which sieve information presented to them" (Karavas & Drossou, 2010). That is, earlier identification of these beliefs would help improving them and change or reinforce, therefore, related practices

(Pajares, 1992). A summary of the participants' teaching practices in relation to oral interaction and especially oral CF was used to discuss the underlying beliefs (identification and eventually confrontation of participants' beliefs). Confrontation of the trainees' pre-existing beliefs is defined as "early awareness rising of pre-existing beliefs" (p.399). This confrontation of student teachers' beliefs was achieved-in the present study-through comparing them with the results of CF theoretical and experimental research about the effects of CF in general CF techniques more specifically (recasts and prompts) on language learning. Fenstermacher's (1986) argues that the inclusion of empirical research in teacher training programs is ideal to help teacher trainees develop their beliefs. Furthermore, according to Hunzicker (2004), presenting new information (new ways of thinking) frequently over time ends up by provoking 'disequilibrium' between the teachers' initial beliefs and the new information (Jensen, 1998; Nuthall & Alton-Lee, 1993). Finally, involving participants in actual oral teaching activities at the end of the intervention is likely to allow them to put into practice the new teaching practices associated to their new beliefs (i.e., the declarative knowledge they gained from the theoretical parts of the experimental intervention) and to reach a new level of belief change (i.e., a more procedural one).

To sum up, the training course employed different strategies to develop the student teachers' beliefs about CF, such as pushing the teachers to verbalise their beliefs, which can make their beliefs explicit, confronting the teachers' pre-existing beliefs by using the results of L2 empirical research in order to create un-satisfaction in these beliefs and model of the teachers' beliefs, in which the student teachers have to try the different CF techniques during the alibi game at the practical part of the course (third part of the course). In relation to these strategies, Ellis (1994) recommended that teacher trainers use the results of L2 acquisition research to raise trainee awareness. The following section presents the research tools used to gather data before and after the training course.

### 3.5 Data Collection Instruments

In this study, and following Pajares (1992), we are looking at stated teacher beliefs because they represent what 'should be done' and 'should be the case'. The research tools used in the present study are a questionnaire and a focus group interview. These tools are described below.

### 3.5.1 Questionnaire

To respond to the tow first research goals; namely; 1) Algerian FFL student teachers' initial beliefs and 2) the effects of the CF training course on these beliefs if any, a questionnaire was administrated twice; one time before the training course (pre-test) to the whole cohort (60 student teachers including experimental and control groups) and one time after the training course (post-test) to the experimental and control groups.

As a survey based tool, questionnaires are commonly used in the majority of empirical studies investigating teachers' beliefs and the effects of teacher training programs on teachers' beliefs (e.g., Bush, 2010; MacDonald, Badger & White, 2001; Mattheoudakis, 2007; Peacock, 2001; Urmston, 2003). Usually, questionnaires allow the elicitation of three types of data, which are, according to Dörnyei (2003): (1) factual data that give biographical information about participants; (2) behavioural data which shed light on the participants' present or past practices, lifestyles and habits; and (3) attitudinal data that gather information about participants' beliefs, attitudes, opinions, values and thoughts.

Because of its great advantages, questionnaires will be used in the current study. One of the primary advantages of the questionnaire is its efficiency in terms of researcher time, efforts and financial resources (Borg, 2006; Dörnyei, 2003). In addition, questionnaires can be used to collect and compare data from different times in a study (McDonough & McDonough, 1997).

Despite their advantages, questionnaires have also limitations. As an example, one respondent could interpret questions or items differently from another respondent and from what the researcher aims (Barcelos, 2003). Along the same lines, Borg (2006) and Mackey and Gass (2005) recommend the utilisation of a simple, organised format of questionnaires, this is characterized by clear, answerable questions and also pays close attention to wording and is reviewed by several researchers. Furthermore, there is also the effect of social desirability in which "a teacher might be reluctant to endorse a professionally unpopular belief" (Kagan, 1990, p. 427).However, Borg (2006) claimed that questionnaires, when used at different points in a study, could not track reasons that promote or prevent change. This indicates that to confirm change in teacher beliefs, other instruments should be used such as interviews.

Adapted from Hassan (2011), this study made use of a closed, three-part, questionnaire targeting teachers' beliefs about CF. The first part includes biographical information about the participants, including name and sex. The second part contains 27, closed, five Likert scale items which elicit teachers' reported beliefs about CF. The 27 items target four issues about CF: (1) importance of CF; (2) implementation of the CF techniques (i.e., timing and frequency of providing CF); (3) recasts technique; and (4) prompts technique. In the third part, the teachers were invited to rank their preferences of different CF techniques while correcting each of the three error types (i.e., grammatical, phonological and vocabulary). The second and the third questionnaire parts are described in details blow.

3.5.1.1 First questionnaire part

Early in this study, thirty Likert scale items were designed to collect pre-service teachers' beliefs about oral CF. These items were designed taking into account various factors that emerged from the theoretical and empirical CF literature, namely the role/effects of CF in general, its frequency, the time at which it is best to provide it (immediate or delayed) and the technique to use in relation to error type and learner's proficiency level. Two categories of techniques have been used: recasts (techniques that reformulate the learner's utterance replacing his/her error by the corresponding correct form with or without meta-linguistic explanation) and prompts (techniques with which the teacher encourages students to self-correct). Then, to ensure the content validity of the questionnaire 30 items, different validation steps were followed. These steps included: a consultation of two CF experts; an exploratory factor analysis and a submission of the questionnaire content to a CF expert committee of eight judges. All these validation steps are described in details below. At the end of this validation procedure, 27 questionnaire items were retained and four CF factors had immerged. The four factors are: (1) importance of CF; (2) implementation of the CF techniques (i.e., timing and frequency of providing CF) (3) recasts technique and (4) prompts technique. The four factors and their respective items are presented in Table 13. The three removed items after the questionnaire validation are; item (4): *Les capsules grammaticales qui ont lieu à la fin du cours sont le meilleur moment pour corriger les erreurs des apprenants*; item (19) *Inciter les apprenants à se corriger par eux-mêmes est bénéfique pour les élèves de niveau avancé* and item (30): *La rétroaction corrective orale augmente le niveau d'anxiété des apprenants de français*

*langue étrangère*. However, is important to mention that there are no distracter items added to the CF items to avoid the factor of exhaustiveness of the participants by the content of the questionnaire and to respond and cover all the targeted CF issues.

Table 13

*The Four CF Factors and their Respective Items*

| **Factor 1: Recasts** |
|---|
| 1. Reformuler correctement l'énoncé erroné de l'apprenant est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. |
| 5-Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de vocabulaire à l'oral. |
| 9. Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique pour les élèves débutants. |
| 15. Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de grammaire à l'oral. |
| 22. Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de prononciation. |
| 27. Reformuler correctement l'énoncé erroné de l'apprenant tout en fournissant une explication de l'erreur est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. |
| 29. Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique pour les élèves de niveau avancé. |
| **Factor 2: Prompts** |
| 2. Fournir des indices pour aider l'apprenant à corriger sa propre erreur à l'oral est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. |
| 6. Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de grammaire à l'oral. |
| 11. Inciter les apprenants à se corriger par eux-mêmes est bénéfique pour les élèves débutants. |

| |
|---|
| 16. Répéter l'erreur de l'apprenant pour qu'il la corrige lui-même est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. |
| 24. Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de prononciation. |
| 26. Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de vocabulaire à l'oral. |
| 28. Inciter les apprenants à se corriger par eux-mêmes est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. |
| **Factor 3: Implementation of CF techniques** |
| 3. La rétroaction corrective orale doit se limiter aux erreurs qui nuisent au sens. |
| 8. La rétroaction corrective orale doit être fournie à la fin de la tâche d'interaction orale. |
| 10. La rétroaction corrective orale doit avoir lieu à la fin du cours. |
| 12. La rétroaction corrective orale doit être fournie dès que l'erreur est commise. |
| 14. L'enseignant du français langue étrangère doit corriger toutes les erreurs orales de ses apprenants. |
| 18. La rétroaction corrective orale doit être fournie durant les tâches d'interaction orale, dès que l'erreur est commise. |
| 21. L'enseignant de toutes les erreurs orales quelle que soit leur nature. |
| 25. L'enseignant de français langue étrangère doit limiter sa rétroaction orale aux erreurs récurrentes. |
| **Factor 4: Importance of CF** |
| 7. La rétroaction corrective orale entrave les tentatives de communication de l'apprenant. |
| 13. La rétroaction corrective orale favorise l'apprentissage du français langue étrangère. |
| 17. La rétroaction corrective orale affecte la motivation des apprenants. |

| |
|---|
| 20. La rétroaction corrective orale doit être évitée dans les classes de français langue étrangère. |
| 23. La rétroaction corrective orale est indispensable en français langue étrangère. |

Subjects responded to each item using a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Student teachers had to indicate their degree of agreement or disagreement with each item by encircling the number which corresponds best to their choice. The whole questionnaire is presented in Appendix 3. A number of questionnaire items were already used in previous research such as Horwitz (1985) and Kartchava (2006). Questions were adapted to make them more relevant to the participants (Algerian pre-service teachers of FFL) and new questions were created. That is to say, all of the 27 items were translated from French to Arabic to make sure that all student teachers understand well the meaning of each item.

**Questionnaire validation procedure**

The questionnaire's early 30 items were validated following various measures. These different validating stages are: 1) administrating the questionnaire to 101 Algerian student teachers of FFL and carrying out a factor analysis; and 2) making an expert committee to validate the factor analysis results. These two validation steps are explained in details bellow.

Emerging from CF research, the early 30 questionnaire items tackled six different conceptual constructs including beliefs about importance of CF, timing of CF, frequency of CF, CF technique of choice, CF technique regarding error type and CF technique regarding learner's proficiency level. Given that we have a small sample size in this study (28 participants), it seemed logical and appropriate if we reduce the number of the six predetermined factors to facilitate data analysis. Hence, a factor analysis was conducted to determine the cluster of items that seemed to correspond to the different concepts. The clustering of the 30 items was evaluated by means of an exploratory principal components factor analysis (PCA) using Mplus Version 7.4 MUTHEN & MUTHEN. This procedure constituted a step towards the validation of the questionnaire using 101 MA students.

However, a second validation analysis (an expert committee) was carried out due to problems revealed in the results of factor analysis. These problems are explained in the results chapter. The expert committee consisted of eight judges for whom we submitted the composition of the different factors. The committee of the eight judges consisted of: two professors, one Ph.D student, two MA students, two baccalaureate students and one lecturer. These eight experts received all necessary information about the preceding steps of the questionnaire validation including early submission to two experts, administration of the questionnaire to 101 participants, the exploratory factor analysis results and the problem with these results. The experts received also all the instruction regarding their validation task. They were required to rate -on a scale of 1 to 4- the fit in of each item to the selected factors retained in the factor analysis, with (1 = strongly disagree and 4 = strongly agree). Only the 27 items that loaded on the three factors were included in this round of validation. Instead of retaining a three- component solution, a four- factor scenario was opted for.

Given the small sample size in this interrater reliability analysis, it is important to adopt a more conservative and critical view regarding the coefficients. The coefficients must be adjusted by accounting for the number of subjects (i.e.,27 items), categories (1 = strongly disagree to 4 = strongly agree) and raters (n = 8). Interrater reliability analysis of the eight judges' classification of items in their respective factors was carried out by means of Agree Stat 2015.2. The reliability coefficients (i.e., Gwet's AC2, Fleiss' Kappa, and Krippendorff's Alpha) were calculated globally; that is to say, there were no parameters for each item, but a global parameter. Landis and Koch's (1977) benchmark scale of reliability coefficients was adopted to evaluate the value of the obtained interrater reliability. According to them, values ranging from 0.0 to 0.2 indicate slight agreement, from 0.21 to 0.40 indicate fair agreement, from 0.41 to 0.60 indicate moderate agreement, from 0.61 to 0.80 indicate substantial agreement and from 0.81 to 1.0 indicate almost perfect or perfect agreement.

#### 3.5.1.2 Second questionnaire part

The purpose of the second part of the questionnaire is to discover the student teachers' preferences of the various techniques or ways with which a teacher can correct the error of a student. Specifically, it presents the student teachers with erroneous statements and requests them to set up the techniques which they would use to correct

them. This part includes three erroneous sentences. Each sentence comprises an error of either grammatical, phonological or lexical nature. Each of the three erroneous sentences is accompanied by four possibilities (CF techniques) for CF varying from recasts, repetition, prompts, explicit correction and metalinguistic feedback. The student teachers must indicate their preference of the various CF techniques -depending on the error type- by ordering the various CF techniques (instances of correction)with which a teacher can correct the error of a student. Furthermore, they would assign the number 1 for their first choice (preference), number 2 for their second choice. . . etc. (see Appendix 3).

### 3.5.2 Focus group interview

One of the widely used instruments to investigate teacher cognition and beliefs in L2 research is the interview as stated earlier by Borg (2006). Interviews elicit information about individuals' perceptions, affective states, judgments, opinions and representations relevant to current situations (Miles & Huberman, 1994). Commonly used with questionnaires, this method allows us to strengthen and deepen the questionnaire results through letting the participants freely express their beliefs and hence enriching the data. Two major types of interviews can be distinguished in L2 research: structured and semi-structured. Structured interviews make use of a pre-established list of questions (i.e., interview guide). Semi-structured interviews in turn are a combination of pre-established questions and open questions. Semi-structured interviews were chosen for the present study because they offer a good understanding and description of the student teachers' beliefs. Particularly semi-structured interviews were used in this study under the form of focus groups. Focus groups, in turn are "a way of collecting qualitative data, which—essentially— involves engaging a small number of people in an informal group discussion (or discussions), 'focused' around a particular topic or set of issues" (Wilkinson, 2004, p. 177). They were mainly used in marketing research (Templeton, 1987). We have chosen focus groups for this study because they permit collecting data simultaneously from different participants and thus they are time saving. In addition, it encourages discussion of opinions between participants (Krueger & Casey, 2000). Focus group interviews could contain six to twelve participants (Johnson & Christensen, 2004; Krueger, 1988, 1994, 2000; Langford, Schoenfeld & Izzo, 2002; Onwuegbuzie, Jiao, & Bostick, 2004) and last about one to two hours (Morgan, 1997; Vaughn, Schumm, & Sinagub, 1996).

Based on the literature review we elaborated two sets of interviews in accordance with the four pre-established factors. One set of questions was used in pre-test before the training course and the other one in post-test (after the training course). The first set of questions contains ten questions while the second (post-test) set contains eleven questions; the same questions as the first one in addition to one question eliciting the participants' declarations about what part of the training course might have caused change in the student teachers' beliefs.

It is important to mention that only the experimental group (n=14) has taken the interviews (pre and post interviews). These interviews were conducted with three focus groups (five participants in the first and second groups, and four participants in the third one). The interviews were administrated at the end of the winter session and unfolded in a classroom at the department of FFL in a relaxed atmosphere and lasted about 30 to 45 minutes for each subgroup of five participants. The interviews were audio- taped and videotaped to know who said what. Questions of pre-test and post-test focus group interviews are presented in Table 14.

Table 14

*Pre-test and Post-test Focus Group Interviews Questions*

| Pre-test focus group interview questions | Post-test focus group interview questions |
|---|---|
| 1- La rétroaction corrective est-elle importante? si oui, comment corrigez-vous les erreurs de vos élèves ? Par exemple, si votre élève dit : hier, mon enseignant donne moi un livre. Que sera votre réaction face à cette erreur ? | 1- La rétroaction corrective est-elle importante? si oui, comment corrigez-vous les erreurs de vos élèves ? Par exemple, si votre élève dit : hier, mon enseignant donne moi un livre. Que sera votre réaction face à cette erreur ? |
| 2- Corrigez vous toutes les erreurs orales de l'apprenant? devez vous se limiter a certain types d'erreurs? si oui, pouvez vous me donnez un exemple? | 2- Corrigez vous toutes les erreurs orales de l'apprenant? devez vous se limiter a certain types d'erreurs? si oui, pouvez vous me donnez un exemple? |

| | |
|---|---|
| 3- Corrigez-vous toutes les erreurs de la même façon? | 3- Corrigez-vous toutes les erreurs de la même façon? |
| 4- A quel moment corrigez-vous les erreurs orales de vos élèves? (À la fin du cours ou tout de suite après l'occurrence de l'erreur ?) | 4- A quel moment corrigez-vous les erreurs orales de vos élèves? (À la fin du cours ou tout de suite après l'occurrence de l'erreur ? |
| 5- Qu'est-ce que vous faites lorsque vous corrigez les erreurs des élèves? | 5- Qu'est-ce que vous faites lorsque vous corrigez les erreurs des élèves? |
| 6- (S'il y a lieu.) Comment avez-vous déterminé votre façon de corriger les erreurs? | 6- (S'il y a lieu.) Comment avez-vous déterminé votre façon de corriger les erreurs? |
| 7- Préférez vous fournir la forme correcte ou pousser vos étudiants à corriger leurs propre erreur ? sur quoi repose votre décision? | 7- Préférez vous fournir la forme correcte ou pousser vos étudiants à corriger leurs propre erreur ? sur quoi repose votre décision? |
| 8- Sur quoi repose votre choix de la façon de corriger les erreurs? | 8- Sur quoi repose votre choix de la façon de corriger les erreurs? |
| 9- Comment corrigez vous les erreurs de prononciation? erreurs du vocabulaire? | 9- Comment corrigez vous les erreurs de prononciation? erreurs du vocabulaire? |
| 10- Comment corrigez vous les erreurs d'un élèves du niveau débutant? d'un élève du niveau avancé? | 10- Comment corrigez vous les erreurs d'un élèves du niveau débutant? d'un élève du niveau avancé? |

| | |
|---|---|
| | 11- Quelle partie de la formation a causé le plus de changement dans votre perception de l'interaction orale en général et de la rétroaction corrective plus spécifiquement? |

### 3.6 Procedure

The current study used a pretest-posttest design to investigate the effect of a teacher training course about oral CF on FFL preservice teachers' beliefs. Data on the pre-service teachers' CF beliefs were basically collected through a closed questionnaire followed by a semi-structured focus group interview. Participants were informed that their confidentiality would be strictly observed.The study was carried out at the end of the winter session of 2015. During the pretest the questionnaire was administered to all the 28 participants (i.e., experimental and control groups) and the whole MA Didactics cohort (60 student teacher). It is important to note that the 60 questionnaire response copies served only to validate the questionnaire. The questionnaire was administrated during a course called Didactics of oral and writing competencies that the participants took in their MA program and took about 30 minutes. It was necessary to require the students' names on the pre-training questionnaire copies so that this could be matched with their post-training questionnaire.

One week after the questionnaire administration, the focus group interview was carried out for only the experimental group (n = 14). The experimental group took the focus group interviews into three groups, each one consisted of about five student teachers. The interviews were administrated at the end of the winter session and unfolded in a classroom at the department of FFL in a relaxed atmosphere and lasted about 30 to 45 minutes for each subgroup of five participants. The interviews were audio- taped and videotaped to know who said what.

Interviews were held in a classroom at the department of FFL in a relaxed atmosphere and lasted about 30 to 45 minutes for each interview. The interviews were audio taped and videotaped to know who said what. The role of the interviewer was to listen and facilitate the conversation (Parker & Tritter, 2006). The focus group interview is particularly helpful to this study because as Kleiber (2004) explains, "The major strength

of the focus group method is its ability to elicit opinions, attitudes, and beliefs held by members of the sample." (2004, p. 97). In addition, it helps exemplifying the type of beliefs already expressed in the questionnaires.

In the week following this first administration of the interview, the CF distance training course was provided to the experimental group by a teacher educator (i.e., course instructor) who is a professor in the department of Didactics at the University of Montreal. The distance training course was provided in a small, quiet, centrally located video-conference room on campus over three consecutive days (three course sessions). Each of the three course sessions lasted about three hours in the afternoon ( from 2:00 pm to 5:00 pm). The distance training course was provided by means of video-conference allowing the participants and the course instructor to be able to see each other through the use of cameras and screens being installed for transmitting videos, images and conversations. Participants were given the liberty to interact with the course instructor as if it was an authentic classroom course (asking and responding to questions). At the beginning of each course session, participants were given written handouts (a printed Power Point presentation), so that they can well follow the course. As described earlier, the training course targeted principally oral CF but covered other issues such as an introduction on oral interaction tasks. In addition, the training course involved a practical component that all the participants revealed enjoying it. This practical component engaged the participants in a real oral interaction activity (the Alibi game) that allowed them to practice providing CF with its different techniques as well as to manage oral interaction activities. Immediately at the end of the last training course session, the second questionnaire was administered to the experimental group. The day after the second questionnaire administration, the second round of focus group interviews was held in the same classroom as the first interview with the same subgroups of the experimental group. In the same week, the second questionnaire was administrated to the control group (n = 14) at the end of a course called Didactics of oral and writing that the participants took in their MA program. The following section shows how data gathered from each instrument was analyzed.

### 3.7 Data Analysis

To analyse the data of this study, descriptive analysis were applied. Analysis procedure is described below for each one of the data collection instruments (i.e., the questionnaire and the interviews) in relation to the three research questions. However, it is

important to mention that data analysis procedures for the questionnaire validation (i.e., factor analysis and expert committee) were already described in the questionnaire validation section.

### 3.7.1 Data analysis for the first research question

The first research question addressed the beliefs indicated by the 28 participants before the training course. Data obtained from the two research tools were analysed descriptively for this purpose.

*3.7.1.1 Analysis of the questionnaire data*

To analyse the participants' CF beliefs before the training course, data of the two questionnaire parts were analysed descriptively. For the first questionnaire part, participants were required to express their (dis)agreement with the questionnaire items by using a 5-point Likert scale. Possible questionnaire item responses ranged from 1, for "strongly disagree" to 5 for "strongly agree." Data from the first questionnaire part (the 27 items) were analysed using descriptive statistics (means and standard deviations) for the two groups (experimental and control) in relation to the four retained CF factors. To interpret means for the 5-point Likert scale, we gave a meaning for each mean score range indicating either "strongly disagree", "disagree", "agree" or "strongly agree". Hence, mean scores hold the following meanings:1-1.49 indicates "strongly disagree", 1.5 to 2.49 for "disagree", 2.5 to 3.49 for "undecided", 3.5 to 4.49 for "agree", 4.5 to 5 for "strongly agree." These mean scores meanings were inspired from Clark-Goff (2008), in which she analysed survey items for pre-service teachers' beliefs about English language learning and teaching. Furthermore, an independent-sample t-test was conducted to compare the pre-test means in relation to each of the four factors between the experimental and control groups.

In the second part of the questionnaire, student teachers were required to rank the use of four different CF techniques, varying from recasts, repetition, explicit feedback, elicitation and metalinguistic feedback in relation to three error types, grammar, pronunciation and vocabulary. However, data reveal that the majority of the student teachers expressed only their first and second CF choices for all of the three error types. Hence, we only reported the results in relation to first and second CF choices for each error type. Data pertaining from the second questionnaire part were analyzed by calculating the proportion of the student teachers' preferences for each CF technique in relation to each

error type as first and second CF choice. Analysis procedure for the two questionnaire parts are illustrated in Table 15.

Table 15

*Data Analysis of the Questionnaire Data for Pre Training Beliefs*

| 1st questionnaire part | 2nd questionnaire part |
|---|---|
| Descriptive statistics (means and standard deviations) for the two groups in relation to the four CF factors | Calculating the percentage of the student teachers' preferences for each CF technique in relation to each error type as first and second CF choice. |
| Attribute a meaning for each mean score range: 1-1.49 indicates "strongly disagree", 1.5 to 2.49 for "disagree", 2.5 to 3.49 for "undecided", 3.5 to 4.49 for "agree", 4.5 to 5 for "strongly agree." | |
| Independent-sample t-test to compare pre-test means between experimental and control groups on the four factors | |

*3.7.1.2 Analysis of the focus group interview data*

Focus group interviews with the experimental group (14 pre-service teachers) were audio- and video- recorded to specify who said what. Then, audios and videos generated from these sets of interviews were transcribed by the researcher via a listening-writing process for further qualitative analysis. After that, we proceeded to a content analysis method to classify pre-test and post-test transcribed data according to the four CF factors (codes) for each of the 14 experimental group participants. These factors were chosen to link up the questionnaire results and they represent the coding schema (see Appendix 4) for the focus group transcripts. Instances of coding are presented in Appendix 5. Furthermore, to ensure the fidelity of the categorization and the classification of the transcribed data according to the four factors, an interrater reliability coding was carried out with a Ph.D student in the department of Didactics on transcripts of four student teachers (see Appendix 6). The agreement rate reached 90%. However, it is important to note that participants' responses to the focus group interview questions were analysed individually. This individual analysis was chosen for different reasons. First of all, we opted for

individual analysis to facilitate direct comparison with the results of the questionnaire on each of the four factors. Furthermore, the semi-structured nature of the interview questions which resulted in short responses in relation to the factors forced this kind of analysis. Another reason could be the scarcity of focus group interactions, in that the participants barely responded to the focus group questions especially before the training course. The researcher's limited attempts to incite the participants to further engage in the group discussions did not help. Most importantly, in this study, we decided to lo look at individual change (i.e., each participant as a case) because reporting the whole group change could hide individual changes.

To respond to the first research question tackling pre-course beliefs, data in relation to each factor were analysed separately. That is, for the factor "importance", the proportion of student teachers who believed and those who don't believe in the importance of CF was calculated. In relation to the factor "implementation of the CF techniques", proportions of student teachers were calculated for 'timing' and 'frequency'. That is for timing, proportion of student teachers was calculated for their preferences of either immediate or delayed CF. For frequency, on the other hand, proportions of student teachers were calculated for systematic correction (correcting all errors), and selective correction (correcting certain errors). For the two remaining factors (recasts and prompts), another classification was added within each factor. That is, each participant's transcripts relevant to each of the two factors were classified according to three dimensions that appeared from CF research, namely technique of choice (student teachers' preference of CF technique), technique in relation to error type (grammatical, lexical and phonological), and technique in relation to learner's proficiency level (beginner and advanced). More specifically, participants have chosen either recasts or prompts in relation to these three dimensions in responding to the interview questions. Hence, participants' choices were analyzed through calculating the proportions of student teachers for recasts and prompts in relation to the three mentioned dimensions. Data analysis procedure for focus group data is presented below in Table 16

Table 16

*Data Analysis of the Focus Group Data for Pre Training Beliefs*

| Corrective feedback factor | Analysis |
|---|---|
| Importance | -Calculate percentages of participants who believed and those |

| | |
|---|---|
| | who did not believe in the importance of CF |
| Implementation<br>1- Timing<br><br><br>2- Frequency | <br>-Calculate percentages of participants who preferred immediate CF and those who preferred delayed CF.<br><br>-Calculate percentages of participants who preferred systematic correction (correcting all errors), and those preferred selective correction (correcting certain errors). |
| Recasts and Prompts factors<br><br>1-Technique of choice<br>2-Technique in relation to error type<br>3-Technique in relation to learner's proficiency level | Calculate proportions of participants who preferred recasts and those who preferred prompts in relation to the three dimensions. |

### 3.7.2 Data analysis for the second research question

The second research question explored the change in CF beliefs after the training course. Descriptive analysis of the questionnaire were employed to indicate change in belief. Qualitative data from focus group interviews was also integrated to answer the second research question.

*3.7.2.1 Analysis of the questionnaire data*

To respond to the second research question in relation to the first questionnaire part, two descriptive analyses were conducted to evaluate change in participants' beliefs about CF. First, mean score per factor was calculated for each of the 28 participants (experimental and control groups) at both questionnaire administrations (pretest and posttest). In order to better understand the nature of the obtained change, qualitative analyses were undertaken. They consisted of classifying changes according to whether they were major, minor, or absent (i.e., no change). Major change comprised reversals in means per factor from negative to positive and vice versa and moving from an undecided status to a decided one-be it positive or negative- and vice versa. Minor (moderate) changes corresponded to increases and decreases in agreement (from agree to extremely agree and

vice versa) or disagreement (disagree to extremely disagree and vice versa). The no change category was assigned when participants' perceptions did not undergo any change.

Second, items that underwent major and moderate change were identified for each of the four factors for the two groups (i.e., experimental and control). It is worthy to note that group mean per item is examined in this analysis. Items showing gains that accede .50 are further underwent further analyses in which the number of participants that underwent each type of change (i.e., major, moderate and no change) are tallied. It is worthy to note that an increment of .06 (e.g., from 2.44 to 2.50) could be at the origin of a category change based on the meanings given to each mean score range (i.e., 1-1.49 indicates "strongly disagree", 1.5 to 2.49 for "disagree", 2.5 to 3.49 for "undecided", 3.5 to 4.49 for "agree", 4.5 to 5 for "strongly agree."). Consequently, the reported findings of the present study need to be interpreted with caution.

In relation to the second questionnaire part, data were analyzed by calculating the proportion of the student teachers' preferences for each CF technique in relation to each error type as first and second CF choice. Change in the student teachers' CF beliefs was explored for each of the three error types separately. As an example, results on first choice in relation to grammatical errors were compared from pre-test to post-test for each of the two groups (experimental and control), and the same thing was done for second choice. Procedures of the questionnaire analyses are presented in Table 17

Table 17

*Data Analysis of the Questionnaire Data for Belief change*

| 1st questionnaire part | 2nd questionnaire part |
|---|---|
| **1st descriptive analysis**<br>-Calculate mean score per factor for each participant (experimental and control groups) at (pretest and posttest)<br>-Classify change as major, minor, or absent.<br>Major change = mean reversals per factor from negative to positive and vice versa and from undecided to decided and vice versa. | -Calculate the proportion of participants' preferences for each CF technique in relation to each error type as first and second CF choice.<br>-Analyze change for each of the three error types separately.<br>Example: results on first choice in relation to grammatical errors were compared from pre-test to post-test for each of the two groups (experimental and control), and the |

| | |
|---|---|
| Minor change = increase and decrease in agreement (from agree to extremely agree and vice versa) or disagreement (disagree to extremely disagree and vice versa).<br>No change = no change in beliefs. | same thing was done for second choice. |
| **2nd descriptive analysis**<br>-Identify items that underwent major and moderate change for each factor for the two groups based on whole group means<br>- Calculate the number of participants that underwent each type of change (i.e., major, moderate and no change) for items showing gains that accede .50 | |

*3.7.2.2 Analysis of the focus group interview data*

Before responding to the second research question tackling change in CF beliefs, a more in-depth analysis was employed to classify change in the pre-service teachers' beliefs about CF from pre-test to post-test in relation to each of the four CF factors. Classifying change in participants' beliefs seems important for us, in that it would clarify and precise the process of change in beliefs. The categories used in this study were adopted from the 11 categories of Cabaroglu and Roberts (2000) described in the preceding chapter (see Table 8), namely; 1) awareness/realisation; 2) consolidation/confirmation; 3) elaboration/polishing; 4) addition; 5) re-ordering; 6) re-labelling; 7) linking up; 8) disagreement; 9) reversal; 10) pseudo change and 11) no change. Cabaroglu and Roberts described these categories as a 'belief development process'. To ensure the fidelity of the categorization and the classification of the transcribed data according to these 11 categories, an interrater reliability coding was carried out with a Ph.D student in the department of Didactics on transcripts of four student teachers. At the first round of reliability coding procedure, the agreement rate reached 60% (moderate agreement). The inability to reach an agreement rate over 80%, pushed us to look over the validity and the fidelity of the 11 mentioned categories. That is, Cabaroglu and Roberts (2000) did not report on the validation of the 11 categories they used. Furthermore, there was no interrater

reliability coding about the classification of the data using the categories. As a result, we divided the 11 categories into two big sets of categories: process and product categories. The process category contains; awareness, addition, linking up, re-ordering, re-labelling and disagreement. The product category encompasses the rest of the categories, namely, consolidation, elaboration, reversal, pseudo change and no change. After that, we have chosen the product big category for our coding. Based on this new categorization of the categories and taking into account the disagreement cases seen in the interrater reliability coding, we recalculated the agreement rate using the final product category (reversal, elaboration, consolidation, pseudo change and no change), and as a result the agreement rate had increased and reached 81%. Hence, these five categories were applied for all of the interview data. As defined by Cabaroglu and Roberts the five retained categories hold the following meanings:1) Reversal means the adoption of opposite of previous beliefs; 2) Consolidation happens when initial beliefs become more strong; 3) Elaboration occurs when previous beliefs become totally or partially reconstructed through additional dimensions such as addition or omission of beliefs; 4) Pseudo change happens when change is difficult to precise and don't belong to either of the remaining categories (i.e., reversal, elaboration, consolidation and no change) and 5) No change when initial beliefs remain intact.

Furthermore, to respond to the second research question, data in relation to each factor were analysed separately using two analysis methods; 1) comparing pre-test and post-test student teachers' proportions in relation to different CF dimensions appearing in each factor such as timing and frequency in the implementation factor and 2) coding patterns of change for each participant -if any- according to the adapted change categories (reversal, elaboration, consolidation, no change and pseudo change) and presenting declaration proportions of these types of change for the whole experimental group (n= 14). That is, for importance factor-as an example- proportions of student teachers who are in favour and those who are against CF were compared from pre-test to post-test. However, although using percentages with samples as small as 14 is questionable, a percentage analysis was retained to simplify the presentation and visualization of the results especially that the total remains unchanged all the time (n = 14). Furthermore, types of change were precised for each student teacher and counted for the whole group and instances of change were given. Table 18 summarises the analysis procedure for focus group data in relation to belief change.

Table 18

*Data Analysis of the Focus Group Data for Belief change*

| Corrective feedback factor | **Analysis:**<br>1) Classify change beliefs from pre-test to post-test in relation to each of the four CF factors using 2 methods.<br>-Compare pre-test and post-test participants' proportions in relation to CF dimensions in each factor such as timing and frequency in the implementation factor<br>-Code patterns of change for each participant -if any- using the categories (reversal, elaboration, consolidation, no change and pseudo change)<br>-Specifytypes of change for each participant, count them for the whole group and present instances of change |
|---|---|
| **Example:** Importance factor | -Compare proportions of participants who are in favour and those who are against CF from pre-test to post-test |

### 3.7.3 Data analysis for the third research question

The third research question sought to answer what part(s) of the training course might impact the CF beliefs of these preservice teachers. For this purpose only data of the interview were analysed. Data in relation to this question were elicited using a question in the post interview. The participants' responses on this question were analyzed descriptively using proportions referring to participants' choice of the first, second or third part of the training course. Furthermore, extracts about the participants' responses specifying and describing the agent of change were provided.

# CHAPTER 4: RESULTS

This study was designed to determine 1) Algerian pre-service teachers' beliefs about CF, 2) the effects of training on pre-existing beliefs and 3) training components that drive change in beliefs. Before presenting the results in relation to the three mentioned research objectives, results of the questionnaire validation procedure are tallied. Data of the present study were collected using two instruments,, a questionnaire and a focus group interview. Students' change in beliefs about CF after an SLA teaching training course on oral interaction and CF was measured by comparing questionnaire scores in a pre and post measure. Interviews in focus groups with the experimental group (14 participants) were used to exemplify the process of change or the lack of change in student teachers' beliefs. This chapter is mainly organized in three sections to present the results pertaining to the three research questions.

## 4.1 Questionnaire Validation Results

In order to validate the factors that were used to develop the questionnaire (i.e., importance of CF, timing of CF, frequency of CF, CF technique of choice, CF technique regarding error type and CF technique regarding learner's proficiency level), an exploratory factor analysis was conducted. However, given that the obtained model fit indices were below the minimum threshold (.95), a second round of validation in which eight judges were asked to evaluate the fit of each item with its corresponding factor was undertaken. Results of the exploratory factor analysis are presented first followed by the interrater reliability findings.

### 4.1.1 Exploratory factor analysis results

Immerging from CF research, the 30 questionnaire items tackled six different conceptual constructs including beliefs about importance of CF, timing of CF, frequency of CF, best CF technique, CF technique in relation to error type and CF technique in relation to learner proficiency level. Given that we have a small sample size in this study (28 participants), it seemed logical and appropriate to see how the different items grouped together to facilitate data analyses. Hence, an exploratory factor analysis was performed on responses provided by 101 teachers (including the 28 participants in the study) to the Likert scale section of the questionnaire. The clustering of the early 30 items -elaborated at

the very beginning of the study based on CF research- was evaluated by means of an exploratory principal components factor analysis (PCA) using Mplus Version 7.4 MUTHEN & MUTHEN.

The correlation matrix evidenced a variety of coefficients of .3 and above, indicating the data's suitability for factor analysis. Furthermore, the Bartlett's Test of Sphericity (Bartlett, 1954) demonstrated statistical significance ($p<.001$), supporting the factorability of the correlation matrix.

Mplus proposed various solutions. It started with a solution of a single factor until it yielded a six-factor- solution (i.e., we have specified the maximum number of factors as six in accordance with the six variables that were used to develop the questionnaire). In accordance with Lambert and Durand's (1975) recommendation, items that did not load above .3 were excluded, notably items 4, 19 and 30. When an item loaded on more than one factor, its fit was determined based on the highest loading value. After considering all the possible component solutions (2 factor, 3 factor, 4 factor, 5 factor and 6 factor), the three- factor solution was retained because it was the only one that yielded interpretable data that best corresponded to the variables used to develop the questionnaire. The three-component solution explained a total of 43.76% of the variance with Component 1 accounting for 12.71%, Component 2 explaining 12.39%, and Component 3 contributing 18.65%. Table 19 presents the factor loadings for the questionnaire as well as the variance explained by each item and each factor. Items loading on the first component centered conceptually on beliefs about recasts as a CF technique. Items loading on the second component centered conceptually on beliefs regarding prompts as a CF technique. The third component included items addressing beliefs about the implementation of CF techniques (timing and frequency) as well as the importance of CF (role and effects).

Table 19

*Factor Loadings for the Questionnaire*

| **Questionnaire** | **Oblique geonim rotation** | | | |
|---|---|---|---|---|
| | ***F*1** | ***F*2** | ***F*3** | $h^2$ |
| 1. Reformuler correctement l'énoncé erroné de l'apprenant est la technique de rétroaction corrective | **.844** | .111 | .044 | .73 |

| | | | | |
|---|---|---|---|---|
| qui contribue le plus à l'apprentissage du français langue étrangère. | | | | |
| 27. Reformuler correctement l'énoncé erroné de l'apprenant tout en fournissant une explication de l'erreur est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | **.443** | -.032 | .534 | .48 |
| 5.Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de vocabulaire à l'oral. | **.837** | .012 | -.018 | .70 |
| 15. Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de grammaire à l'oral. | **.742** | .011 | .248 | .61 |
| 22. Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de | **.629** | -.018 | .132 | .41 |
| 9. Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique pour les élèves débutants. | **.439** | .153 | .049 | .22 |
| 29. Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique pour les élèves de niveau avancé. | **.422** | .186 | .256 | .28 |
| | | | | |
| 2. Fournir des indices pour aider l'apprenant à corriger sa propre erreur à l'oral est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | .07 | **.424** | .071 | .19 |
| 16. Répéter l'erreur de l'apprenant pour qu'il la corrige lui-même est la technique de rétroaction corrective qui | -.025 | **.438** | -.163 | .22 |

| | | | | |
|---|---|---|---|---|
| contribue le plus à l'apprentissage du français langue étrangère. | | | | |
| 28. Inciter les apprenants à se corriger par eux-mêmes est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | .036 | **.834** | .111 | .71 |
| 6. Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de grammaire à l'oral. | -.007 | **.738** | -.001 | .55 |
| 24. Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de prononciation. | -.047 | **0.745** | -.105 | .57 |
| 26. Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour | .011 | **.815** | 0 | .66 |
| 11. Inciter les apprenants à se corriger par eux-mêmes est bénéfique pour les élèves débutants. | -.013 | **.653** | .155 | .45 |
| | | | | |
| 3. La rétroaction corrective orale doit se limiter aux erreurs qui nuisent au sens. | -.016 | .170 | **.555** | .34 |
| 8. La rétroaction corrective orale doit être fournie à la fin de la tâche d'interaction orale. | .101 | .236 | **.448** | .27 |
| 10. La rétroaction corrective orale doit avoir lieu à la fin du cours. | .017 | .150 | **.561** | .34 |
| 12. La rétroaction corrective orale doit être fournie dès que l'erreur est commise. | -.065 | .007 | **-.674** | .46 |
| 18. La rétroaction corrective orale doit être fournie durant les tâches d'interaction orale, dès que l'erreur est | .001 | .079 | **-.56** | .32 |

| | | | | |
|---|---|---|---|---|
| commise. | | | | |
| | | | | |
| 3. La rétroaction corrective orale doit se limiter aux erreurs qui nuisent au sens. | -.016 | .170 | **.555** | .34 |
| 14. L'enseignant du français langue étrangère doit corriger toutes les erreurs orales de ses apprenants. | -.075 | .241 | **-.793** | .69 |
| 21- L'enseignant d'anglais langue étrangère doit corriger toutes les erreurs orales quelle que soit leur nature. | .016 | .226 | **-.805** | .70 |
| 25. L'enseignant d'anglais langue étrangère doit limiter sa rétroaction orale aux erreurs récurrentes. | -.244 | .009 | **.464** | .28 |
| | | | | |
| 7.La rétroaction corrective orale entrave les tentatives de communication de l'apprenant. | -.135 | .127 | **-.523** | .31 |
| 13. La rétroaction corrective orale favorise l'apprentissage du français langue étrangère. | .336 | .028 | **-.560** | .43 |
| 17.La rétroaction corrective orale affecte la motivation des apprenants. | -.210 | .025 | **.326** | .15 |
| 20. La rétroaction corrective orale doit être évitée dans les classes d'anglais langue étrangère. | -.300 | .207 | **.505** | .39 |
| 23. La rétroaction corrective orale est indispensable en français langue étrangère. | .202 | .047 | **-.577** | .38 |
| % variance | 12.7 | 12.4 | 18.7 | 43.76 |

*Note*: although item 27 loaded on factors 1 and 3, it was retained within factor 1.

However, the three-factor analysis yielded model fit indices scores (Comparative Fit Index (CFI) and Tucker Lewis Index (TLI)) that were slightly below the minimum threshold. Hu and Bentler (1999) suggested that for continuous data both TLI and CFI values should be superior to .95. The obtained values for these indices are respectively CFI =0.875 and TLI =0.844. Consequently, the obtained three factors underwent a second round of validation that was conducted through an inter-rater agreement analysis.

4.1.2 Expert committee results

To perform the second validation, a committee consisting of eight judges - two professors, one Ph.D student, two MA students, two undergraduate students and one faculty lecturer ($n$ = 8) –were required to rate on a scale of 1 to 4 the fit of each item to the factors that emerged from the exploratory factor analysis. Only the 27 items that loaded on the three factors were included in this round of validation. Instead of retaining a three-component solution, a four- factor scenario was opted for. In fact, the first two factors, namely recasts (items 1, 5, 9, 15, 22, 27 and 29) and prompts (items 2, 6, 11, 16, 24, 26 and 28) were not altered and consisted of the items that clustered around them in the exploratory factor analysis. Factor 3, however, was divided into two factors, namely importance (items 7, 13, 17, 20 and 23), on the one hand, and implementation of CF (items 3, 8, 10, 12, 14, 18, 21 and 25), on the other hand.

Interrater reliability analysis of the eight judges' classification of items in their respective factors was carried out by means of Agree Stat 2015.2. The reliability coefficients (i.e., Gwet's AC2, Fleiss' Kappa, and Krippendorff's Alpha) were calculated globally; that is to say, there were no parameters for each item, but a global parameter. Landis and Koch's (1977) benchmark scale of reliability coefficients was adopted to evaluate the value of the obtained interrater reliability. According to them, values ranging from 0.0 to 0.2 indicate slight agreement, from 0.21 to 0.40 indicate fair agreement, from 0.41 to 0.60 indicate moderate agreement, from 0.61 to 0.80 indicate substantial agreement and from 0.81 to 1.0 indicate almost perfect or perfect agreement. The interrater reliability results are provided in Table 20.

Table 20

*Interrater Reliability Results*

| Method | Coefficient | *SD* | *p* |
|---|---|---|---|
| Gwet's $AC_2$ | .73184 | .06457 | 1.482E-12 |
| Fleiss' Kappa | .47317 | .07729 | 8.677E-07 |
| Krippendorff's Alpha | .47523 | .05936 | 4.872E-09 |
| Percent Agreement | .86198 | .02018 | 0.000E+00 |

Given the small sample size in this interrater reliability analysis, it is important to adopt a more conservative and critical view regarding the coefficients. The coefficients must be adjusted by accounting for the number of subjects (i.e., 27 items), categories (1 = strongly disagree to 4 = strongly agree) and raters (n = 8). Based on Gwet's recommendations, a simulation of the 95$^{th}$ percentile sample distribution of the data based on the number of items, categories and raters would yield a critical value of 0.09. Therefore, we substracted 0.09 from 0.73184 obtaining 0.642. After this correction, the AC2 coefficient suggests that the interrater reliability among the raters is still substantial.

Based on the inter-rater reliability analysis results, questionnaire data that were obtained from the 28 participants will be analyzed along four factors, i.e., recasts, prompts, implementation and importance.

### 4.2 Pre-test Algerian Pre-service Teachers' Beliefs regarding CF

To answer the first research question, results from each data collection instrument will be provided in this section, starting with the questionnaire data.

#### 4.2.1 Questionnaire results

As explained in the methodology section, the questionnaire comprised two parts: (1) a Likert scale questionnaire about the different variables pertaining to CF that emerged from pre-existing research and (2) a more practical part in which participants were asked to indicate their CF technique preferences in relation to different error types (grammar, pronunciation and vocabulary). Results relating to each of these sections are presented next.

*4.2.1.1. Likert scale section results*

Descriptive analyses, mean and standard deviation by factor, were undertaken to identify participants' pre-existing beliefs about CF. The obtained results are presented in Table 21. In accordance with Clark-Goff (2008), the following criteria were used to interpret the obtained results in this part of the questionnaire: meanings ranging between 1 and 1.49 are interpreted as evidence of strong disagreement (i.e., strongly disagree), between 1.5 and 2.49 as disagreement (i.e., disagree), between 2.5 and 3.49 as neutral (i.e., undecided), between 3.5 and 4.49 for agreement (i.e., agree), and between 4.5 and 5 as strong agreement (i.e., strongly agree).

Table 21

*Pre-test Corrective Feedback Beliefs*

| Factor* | *Experimental group (n=14)* | | *Control group (n=14)* | | *Total (n=28)* | |
|---|---|---|---|---|---|---|
| | *M** | *SD* | *M* | *SD* | *M* | *SD* |
| Recasts | 3.50 | 0.73 | 3.16 | 0.93 | 3.33 | 0.84 |
| Prompts | 3.75 | 0.78 | 3.64 | 0.64 | 3.69 | 0.70 |
| Implementation | 2.82 | 0.39 | 2.95 | 0.57 | 2.88 | 0.48 |
| Importance | 3.07 | 0.47 | 3.01 | 0.45 | 3.04 | 0.45 |

Note: * factors that emerged from the inter-rater reliability analyses

** maximum score is 5 for "strongly agree".

As indicated in Table 16, the implementation factor displays the lowest mean score for the experimental group ($M$ = 2.82), control group ($M$ = 2.95) and, consequently, total participants ($M$ = 2.88). This finding indicates that participants were undecided when it came to issues relating to the timing of CF (immediate versus delayed) and its frequency (comprehensive versus selective). The same neutrality applies to the importance factor. As

for techniques, results indicate that while both groups agree with the use of prompts, they seem to have somewhat diverging views as to the use of recasts, with the experimental group displaying a more favourable view ($M = 3.50$) than the control group ($M = 3.16$).

Independent-sample t-tests were conducted to compare the experimental and control groups' pre-test means in relation to each of the four factors. Results indicate no significant differences between the two groups in the recast factor $t$ (1, 22) = 1.07, $p$ = 0.30, the prompt factor $t$ (1, 22) = 0.30, $p$ = 0.71, the implementation factor $t$ (1, 22) = -0.68, $p$ = 0.50 and the importance factor $t$ (1,22) = 0.33, $p$ = 0.75.

*4.2.1.2 Corrective feedback choices section results*

In the second part of the questionnaire, student teachers were required to rank the use of four different CF techniques, varying from recasts, repetition, explicit feedback, elicitation and metalinguistic feedback in relation to three error types, i.e., grammar, pronunciation and vocabulary. However, data reveal that the majority of the student teachers expressed only their 1st and 2nd CF choices for all of the three error types. Hence, we only reported the results in relation to 1st and 2nd choice for each error type. Data pertaining to the second questionnaire part were analyzed by calculating the proportion of the student teachers' preferences for each CF technique in relation to each error type as 1st and 2nd choice. Results are presented as following: grammatical CF choices, pronunciation CF choices, and vocabulary CF choices, respectively.

**Grammatical CF choices**

Results indicate that overall both groups showed a clear preference for prompting techniques (i.e. repetition, elicitation and metalinguistic feedback). It is worthy to note that very few control group participants opted for recasts as a first or second choice (14% and 7% respectively), echoing the neutrality they demonstrated in the first part of the questionnaire. Elicitation seems to be both groups' first technique of choice (36% for the experimental group and 50% for the control group). Results on the 2nd choice, on the other hand, indicate the experimental group's preference for metalinguistic feedback (43%) and the control group's preference for repetition (43%). All grammatical CF choice results on the pre-test for the two groups are presented in Table 22.

Table 22

*Pre-test Corrective Feedback Choices relating to Grammar*

| Technique | Experimental group (N= 14) | | Control group (N=14) | |
|---|---|---|---|---|
| | 1st choice | 2nd choice | 1st choice | 2nd choice |
| Recasts | 29% | 7% | 14 % | 7 % |
| Repetition | 14% | 17% | 7 % | 43 % |
| Elicitation | 36% | 33% | 50 % | 14 % |
| Metalinguistic feedback | 21% | 43% | 29 % | 36 % |

**Pronunciation CF choices**

Results on pronunciation errors indicate that the experimental group preferred metalinguistic feedback (36%) and elicitation (29%) -as a first choice- and these both techniques as a second choice (36%). In turn, the control group preferred metalinguistic feedback (36%) -as a first choice- and elicitation as an alternative technique (43%). These results indicate once more the pre-service teachers' preference of prompting techniques when it comes to pronunciation errors. Results as to the participants' pronunciation CF choices are presented in Table 23.

Table 23

*Pre-test Corrective Feedback Choices relating to Pronunciation*

| Technique | Experimental group (N= 14) | | Control group (N=14) | |
|---|---|---|---|---|
| | 1st choice | 2nd choice | 1st choice | 2nd choice |
| Explicit feedback | 14 % | 21 % | 14 % | 14 % |
| Repetition | 21 % | 7 % | 29 % | 29 % |
| Elicitation | 29 % | 36 % | 29 % | 43 % |
| Metalinguistic feedback | 36 % | 36 % | 36 % | 14 % |

**Vocabulary CF choices**

Results on vocabulary CF choices for the pre-test indicate that metalinguistic feedback is the experimental groups' first and second technique of choice, 36% both. Elicitation and repetition represent the control group's first and second choices (43% and 36% respectively). Table 24 presents the obtained results.

Table 24

*Pre-test Corrective Feedback Choices relating to Vocabulary*

| Technique | Experimental group (N= 14) | | Control group (N=14) | |
|---|---|---|---|---|
| | 1st choice | 2nd choice | 1st choice | 2nd choice |
| Recasts | 21.43% | 7.14 % | 14 % | 14 % |
| Repetition | 21.43% | 28.57 % | 7 % | 36 % |
| Elicitation | 21.43% | 28.57 % | 43 % | 29 % |
| Metalinguistic feedback | 35.71% | 35.71% | 36 % | 21 % |

**4.2.2 The focus group interview results**

Questions of the interview elicited the student teachers' perceptions as to the four factors, namely importance of CF, implementation of CF techniques, recasts and prompts. It is important to mention that only the experimental group had participated in the focus group interview. It is important to mention too, that the participants' responses (declarations or beliefs) to each of the interview questions/factors are equal to the number of participants. Based on this fact, all rates provided below correspond to persons (participants) in that all of them responded to the interview questions except for the question related to what technique to use with learners of different proficiency levels, in which some participants admitted not knowing the answer.

*4.2.2.1 Corrective feedback techniques (recasts and prompts)*

Data in relation to this factor are analyzed along three dimensions, namely technique of choice, technique in relation to error type, and technique in relation to learner's proficiency level.

In relation to CF technique of choice, results indicated that prompts were the technique of choice for 93% of the participants, echoing once more findings from the first part of the questionnaire. The remaining 7% participants showed preference for reformulations. This finding contradicts results obtained in the first part where the experimental group participants agreed with the use of recasts ($M = 3.50$).

Regarding the choice of the CF technique in relation to error type, results revealed that 14% of the participants preferred using recasts to correct phonological errors and 7% preferred using prompts with this same error type. The rest of the participants (79%) either did not mention any CF preferences for this error type or expressed a variety of responses such as asking the learners to repeat the word. In relation to vocabulary errors, results revealed a variety of responses that did not include any specification of recasts or prompts such as, giving synonyms, using photos and asking learners to read books. However, only one participant expressed her preference for recasts to correct this error type (see Excerpt 8).

Excerpt 8

Meriem: *je lui corrige l'erreur directement et je lui dis le mot directement car c'est du bagage linguistique. Je ne peux pas donner des indices pour ce genre d'erreurs.*

Concerning grammatical errors, one participant preferred recasts and another preferred prompts for this error type, the rest of the participants did not provide any CF preferences for this error type.

In the pre-test, only six out of the fourteen participants responded to the question concerning what technique to use with learners of different proficiency levels, the remaining 8 participants admitted not knowing the answer. Three out of the six who responded (50%) affirmed providing the correct form (i.e., recasting and explicit feedback) when reacting to low proficiency learners' errors. The remaining three expressed a preference for prompting techniques when reacting to advanced learners' errors. Two of the latter (33% from the six who responded) added that they prefer using prompts regardless of proficiency level.

*4.2.2.2 Implementation of CF*

Results on the second factor revealed that for timing, the majority of the experimental group (71%) argued that CF should not be immediate (see Excerpts 5 and 6).

This finding gains in significance when crossed with results of the first part of the questionnaire in which implementation turned out to be the factor with the lowest mean score, leaning more towards neutrality and disagreement. A few of the experimental group participants (29%) believed in immediate CF (see excerpt 7).

Excerpt 5

Nessrine: *il ne corrige pas pendant les séances de cours. Il peut le faire par exemple dans les séances de rattrapage.*

Excerpt 6

Lilia : *pour moi, pendant l'interaction, l'enseignant ne doit pas interrompre l'élève. Il ne doit pas dire tu as fait une erreur arrête! Laisse le parler jusqu'a la fin, ensuite fait une séance spéciale pour les corriger ou bien, à la fin du cours ou à la fin de la discussion de l'élève. Je consacre une séance spéciale pour corriger les erreurs des élèves ...par exemple aujourd'hui on a fait une séance d'expression orale, et les élèves ont fait des erreurs ... je ramasse toutes les remarques et on fait une séance spéciale pour correction.*

Excerpt 7

Meriem: *Je préfère que l'enseignant corrige immédiatement l'erreur de l'élève pour qu'il mémorise cette erreur.*

For the frequency of CF, on the other hand, 21% of the experimental group participants believed in comprehensive correction (all errors should be corrected). However, 14% of the participants believed that CF should be selective without specifying what errors should be prioritized. In addition, 14% believed that pronunciation errors should not be corrected. The rest of the participants 50% expressed a variety of responses, such as correcting grammatical errors, serious errors, semantic errors, and vocabulary errors.

*4.2.2.3 Importance of CF*

In the pre-test, results on the importance of CF revealed that the majority of the experimental group 79% believed in the importance of CF, they argued that CF is necessary for learning FFL (see excerpts 1 and 2).

Excerpt 1

Amel: *la rétroaction corrective est importante et nécessaire certes pour l'évolution, pour l'amélioration pour acquérir une langue soutenue académique sans fautes.*

Excerpt 2

Lilia : *oui elle est importante, elle joue un rôle primordiale, si on ne corrige pas les erreurs on ne peut pas améliorer l'élève.*

On the other hand, participants who did not believe in the importance of CF (21%) questioned the necessity of CF arguing that it hampers students' participation attempts (see excerpts 3 and 4).

Excerpt 3

Hichem: *...permettre à l'apprennent de faire des erreurs c'est bien pour apprendre…la correction empêche la participation de l'élève.*

Excerpt 4

Fatima : *la correction n'est pas vraiment nécessaire.*

### 4.2.3 Summary of the results on pre existing beliefs

The first objective of the present study was to explore pre-service teachers' pre-existing beliefs. Data pertaining to this research question were gathered through a two part questionnaire that was administered to all participants and a semi-structured focus group interview that was administered for only the experimental group.

Results of the Likert-scale questions section indicate that before the training course, all participants were undecided about the efficacy and use of recasts (i.e., pre-test means load upon the neutrality point). These same participants held more favorable views regarding the use of prompts. This finding corroborates those of the focus group interview and the 2nd questionnaire part in which participants preferred CF techniques that prompted learners to self-correct regardless of error type. However, it is important to note that during the focus group interviews, participants barely responded to the questions. They expressed a variety of responses that did not indicate their awareness of research and of the different CF techniques teachers can use in relation to different error types and learners' proficiency level. With regards to the implementation factor (timing and frequency of CF), Likert-scale results indicated that participants held less favorable views. Most importantly, interview

results indicated that the majority of the experimental group participants (71%) preferred delayed CF and very few (29%) showed preference for immediate CF provision. In relation to the frequency of CF, no clear preference patterns could be identified. In relation to the importance and effects of CF, Likert-scale results indicated a neutral position while focus group results demonstrated more favorable views.

## 4.3 Effects of the Training on Pre-service Teachers' Beliefs about CF

The same structure that was followed to present results in relation to the first research question is adopted to demonstrate the effects of the experimental training on teacher beliefs. Results from the questionnaire will be presented first followed by findings from the focus group interviews conducted with the experimental group.

### 4.3.1 Questionnaire results

Results from the questionnaire are presented one section at a time. That is, results pertaining to the Likert scale items are presented first. In this section, we start by providing individual learner mean scores per factor. Then, results pertaining to group change per item within each of the four factors are presented.

#### *4.3.1.1 Likert scale section results*

Two descriptive analyses were conducted to evaluate change in participants' beliefs about CF. First, overall change was analysed by calculating percentages of students having shown change –major, moderate and no change –by factor (all items combined). Pre-test post-test major changes comprised reversals in means per factor from negative to positive and vice versa and moving from an undecided status to a decided one-be it positive or negative- and vice versa. Minor changes corresponded to increases and decreases in agreement (from agree to extremely agree and vice versa) or in disagreement (from disagree to extremely disagree and vice versa). The 'no change' category was assigned when participants' perceptions did not undergo any change.

Second, a within factor analysis was undertaken to identify items with the largest gain scores and the number of students having shown major, moderate and no change for these same items. It is worthy to note that group mean per item is looked at in this analysis. Items showing gains that exceed .50 were retained because increments of .50 are likely to modify the status of belief change –from strongly disagree, to disagree, to neutral, to agree

and to disagree. After that, further analyses in which the number of participants that underwent each type of change (i.e., major, moderate and no change) were tallied.

In order to understand the meaning of the obtained changes, the content of the experimental intervention pertaining to each of the four factors is provided. Results on the two descriptive analysis for the experimental and control groups are provided below in relation to each of the four factors.

**Recasts factor results**

Results on the effects of the training course in relation to the recasts factor are presented below for overall change and change per item respectively.

***Overall change for the recast factor***

For the experimental group and in relation to the recasts factor, results revealed that 12 out of the 14 experimental group participants (86%) underwent some change in perceptions, be it major or moderate. Only two participants did not experience any change. As Table 25 indicates, there were two reversals (14%), one positive and one negative. In addition, there were two (14%) changes from undecided to decided positions (one for agreement and one for disagreement). Most notably four participants (29%) who perceived recasts positively at the pre-test became undecided about its use following the training. Four student teachers (29%) showed some moderate change; two of whom became more in agreement and two more in disagreement with the use of recasts. If we combine negative reversal, change from undecided to negatively decided and positively decided to undecided, all of which fall under the major change category, it appears that six of the eight students whose perceptions have undergone major change, i.e., 75%, viewed the use of recasts less favorably after the training.

The control group results reveal that the beliefs of 10 out of the 14 participants (71%) remained unchanged at the post-test. The change undergone by the four remaining participants (four students = 29%) falls under the major change category. Of the four students that underwent major change, three students showed more positive views towards recasts (one total reversal from negative to positive and two changes from undecided to decided). That is, 75% of the control group students whose beliefs underwent major change view recasts more favorably in the post-test. One single student underwent a negative major change (from undecided to disagree) in the post-test.

Table 25

*Nature of Change for the Recasts Factor*

| Group | Major change | | | | | | Moderate change | | No change |
|---|---|---|---|---|---|---|---|---|---|
| | Total reversal(1) | | Undecided to decided(2) | | Decided to undecided(3) | | Increase/decrease in agreement(4) | Increase/decrease in disagreement (5) | |
| | +,- | -,+ | + | - | + | - | | | |
| Experimental | 1 | 1 | 1 | 1 | 4 | 0 | 2 | 2 | 2 |
| Control | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 10 |

Note: 1 +,- : from agree to disagree, -,+: from disagree to agree. 2+ : agree, - : disagree. 3+ : used to agree, - : used to disagree. 4: from agree to extremely agree and vice versa. 5: from disagree to extremely disagree and vice versa.

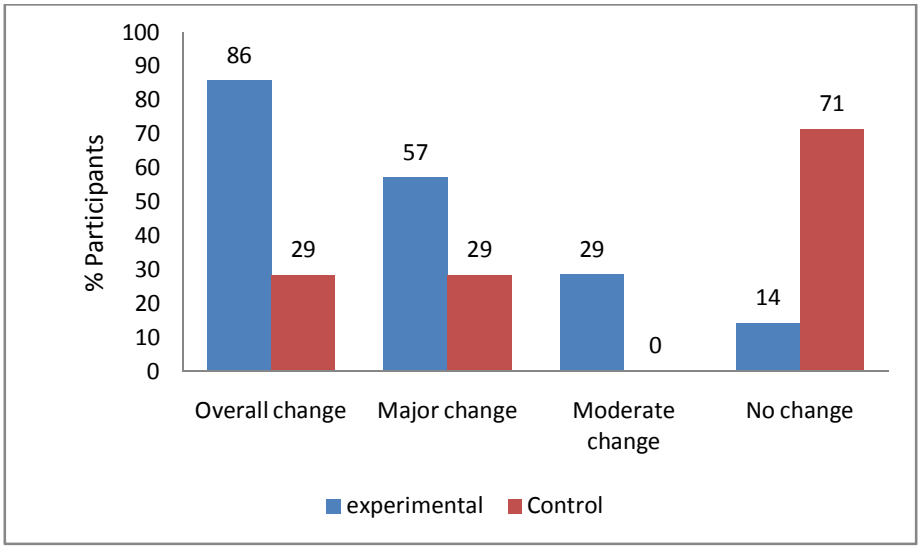


*Figure 4*. Belief Change Regarding Recasts across Experimental Conditions

If we compare the two groups' performances, it appears that the experimental group underwent more change than the control group (89% and 29% respectively). While, change in the experimental group was varied, in that 57% of participants experienced major change and 29% underwent moderate change, it was of one single type in the control group, namely major change (see Figure 4). While major change in the experimental group

tends towards disagreement with the use of recasts (75%), it tends to go in the opposite direction in the control group, i.e., the control group views recasts more favorably at the end of the training.

***Change per item for the recast factor***

Based on previous research findings, information pertaining to the recasts factor that was provided during the experimental intervention indicated, among other things, that 1) while form-focused instruction (FFI) where learners' errors are recast is more effective than instruction in which teachers ignore learners' errors, FFI in which prompts are used are more effective than FFI with recasts; 2) recasts targeting pronunciation lead to more uptake and are more noticed by L2 learners than recasts on morphosyntax and 3) high proficiency learners benefit from recasts more than their low proficiency counterparts.

*Experimental group results*

For the experimental group, results pertaining to group gains per item indicate that, overall, change in beliefs corresponded to the information provided during the experimental training (see items Table 26). For recasts and as Table 26 indicates, items 9 and 22 showed the largest gain scores. Overall, and as a result of the training, the experimental group participants developed a more negative perception vis à vis the use of recasts with low proficiency learners (item 9). They were also reassured in the use of this same technique to react to learners' pronunciation errors (item 22).

In order to better understand the nature of change within these two items, analyses of the number of students having shown change were conducted. Results indicate that 5 out of the 14 experimental group participants exhibited major change (4 agree to disagree) and (1 undecided to agree) regarding the use of recasts with low proficiency learners (i.e., item 9). In addition, 2 participants showed moderate change (increase in disagreement) and 7 participants did not undergo any change in their beliefs regarding this same item. Six participants remained in disagreement while only one participant stayed in agreement with it. It is worthy of note that the experimental intervention contained research results as to the limited effectiveness of recasts with low proficiency learners. If we exclude participants who already believed that recasts should not be used with low proficiency learners (i.e., those who at the pre-test were already in disagreement (n = 6) and those whose disagreement increased after the experimental intervention (n = 2)), change that

corresponded to the content of the experimental training was possible only for the remaining 6 participants. Of these, 4 underwent major change and became in disagreement with the use of recasts with low proficiency learners (i.e., 67%).

For item 22, regarding the use of recasts for pronunciation errors, results revealed that 4 out of the 14 participants showed major change in which 2 went from disagree to agree and 2 from agree to disagree. In addition, 4 participants demonstrated moderate change (3 increased in agreement and 1 extremely disagreed) regarding this item. However, 6 participants remained static in their beliefs about this same item. From these 6 participants, 3 remained in disagreement, 2 stayed in agreement, and 1 participant strongly in disagreement with the use of recasts to correct pronunciation errors. Patterns of change within item 22 do not necessarily correspond to the information that was provided during the experimental intervention, namely that recasts lead to higher levels of uptake when targeting pronunciation and that learners notice pronunciation reformulations more than morphosyntactic reformulations. If we exclude participants whose pre-test beliefs corresponded to the experimental intervention and whose post-test beliefs echoed those from the pre-test (i.e., 4 participants whose agreement increased and 2 participants who remained in agreement), the effects of the training can be evaluated by looking at the results pertaining to the remaining 8 participants. Of these, only 2 underwent major change that corresponded to the content of the experimental training (i.e., 25%) and two other participants underwent a change in the opposite direction. The remaining four (i.e. 50%) remained in disagreement (3 in disagreement and 1 in strong disagreement), which again runs counter the provided training.

Table 26

*Change per Questionnaire Item within the Recast Factor for the Experimental Group*

| Items | Pre-test Mean | Post-test Mean | Gain | Number of participants X type of change | | |
|---|---|---|---|---|---|---|
| | | | | Major | Moderate | No change |
| 1. Reformuler correctement l'énoncé erroné de l'apprenant est la technique de rétroaction corrective qui | 3.21 | 2.86 | -0.35 | 7 | 2 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| contribue le plus à l'apprentissage du français langue étrangère. | | | | | | |
| 5. Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de vocabulaire à l'oral. | 3.00 | 3.07 | 0.07 | 4 | 4 | 6 |
| 9.Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique pour les élèves débutants. | 3.36 | 2.71 | -0.65 | 5 | 2 | 7 |
| 15. Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de grammaire à l'oral. | 3.43 | 3.00 | -0.43 | 5 | 3 | 6 |
| 22.Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de prononciation. | 3.71 | 4.36 | 0.65 | 4 | 4 | 6 |
| 27.Reformuler correctement l'énoncé erroné de l'apprenant tout en fournissant une explication de l'erreur est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | 4.28 | 3.71 | -0.4 | 5 | 3 | 6 |
| 29. Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique pour les élèves de niveau avancé. | 3.50 | 3.36 | -0.14 | 7 | 3 | 4 |

*Control group results*

Results pertaining to the control group gains per item indicate that, overall, change in beliefs did not correspond to the information provided during the experimental training. For recasts, see Table 27, item 5 showed the largest gain scores (0.64). The control group participants held a more positive perception as to the use of recasts to correct vocabulary errors (item 5), a change that runs against the content of the experimental intervention.

If we compare the two groups' performances, it appears that the experimental group underwent more change than the control group (3 significant item changes and 1significant item change, respectively). Furthermore, change in the experimental group beliefs echoed the content of the provided training, which was not the case for the control group.

Table 27

*Change per Questionnaire Item within the Recast Factor for the Control Group*

| Items | Pre-test Mean | Post-test Mean | Gain | Number of participants X type of change | | |
|---|---|---|---|---|---|---|
| | | | | Major | Moderate | No change |
| 1. Reformuler correctement l'énoncé erroné de l'apprenant est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | 2.71 | 3 | 0.29 | 4 | 3 | 7 |
| 5.Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de vocabulaire à l'oral. | 2.79 | 3.43 | 0.64 | 6 | 4 | 4 |
| 9. Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique | 3.14 | 3.29 | 0.15 | 4 | 5 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| pour les élèves débutants. | | | | | | |
| 15. Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de grammaire à l'oral. | 3.14 | 3.29 | 0.15 | 6 | 3 | 5 |
| 22. Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de prononciation. | 3.36 | 3.43 | 0.07 | 8 | 1 | 5 |
| 27. Reformuler correctement l'énoncé erroné de l'apprenant tout en fournissant une explication de l'erreur est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | 4 | 3.93 | -0.07 | 5 | 2 | 6 |
| 29. Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique pour les élèves de niveau avancé. | 3 | 3.36 | 0.36 | 4 | 3 | 7 |

**Prompts factor results**

Results on the effects of the training course in relation to the prompts factor are presented below for overall change and change per item respectively.

***Overall change for the prompts factor***

For the experimental group and in relation to the prompts factor, results revealed that 9 out of the 14 participants (64%) underwent some change, either major or moderate, and only 5 (36%) did not as indicated in Table 28. Among major changes, there were one reversal from negative to positive, 2 changes (14%) from undecided to decided (positive) and one move (7%) from positive decision to undecided. In relation to moderate changes, there were 3 increases (21%) in agreement and 2 decreases (14 %) in agreement. As seen

in these results, most of the change –be it major or moderate- was towards a more favorable view of prompts -except for one change from positive to undecided. That is, if we combine the one positive reversal, the 2 changes from undecided to positive, the 3 increases in agreement, we find that 6 of the 9 participants (67%) who underwent change perceive prompts more positively after training (i.e., at the post-test). It is important to mention that 4 of the 5 participants (80%) who did not undergo any kind of change strongly agreed with the use of prompts from the onset (i.e., pre-test) and that one of the major goals of the experimental training was to convince participants of the importance of prompts in L2 classrooms. In other words, these four participants' pre-existing beliefs (as measured at the pre-test) corresponded to the change targeted through the training, leaving, therefore, no room for change. Furthermore, if we combine all positive positions towards prompts- be it change or no change- after the course, we find that 11 out of the 14 participants (i.e., 79%) in the experimental group maintain a positive position towards prompts either by change or consolidation of belief.

The control group results revealed that 7 participants out of 14 (50%) did not undergo any change in beliefs in the post-test. In the pre-test, these participants agreed about the effectiveness of prompts and held these same beliefs at the post test. This lack of change is due to their pre-test beliefs in the sense that they already believed in the importance of prompts. The obtained change for the remaining 7 participants corresponds to 3 major changes (2 from undecided to positive and 1 from negative to undecided) and 4 moderate changes that represent increase in agreement. This implies that 86% of the control group participants who underwent change perceived prompts positively in the post-test, and the one student who perceived prompts negatively in the pre-test became undecided about it. All these results are presented in Table 28.

Table 28

*Nature of Change for the Prompts Factor*

| Group | Major change | | | Moderate change | | No change |
|---|---|---|---|---|---|---|
| | Total reversal | Undecided to decided | Decided to undecided | Increase/decrease in agreement | Increase/decrease in disagreem | |

| | | | | | | | | ent | |
|---|---|---|---|---|---|---|---|---|---|
| | +,- | -,+ | + | - | + | - | | | |
| Experimental | 0 | 1 | 2 | 0 | 1 | 0 | 3 | 2 | 5 |
| Control | 0 | 0 | 2 | 0 | 0 | 1 | 4 | 0 | 7 |

Note: 1 +,- : from agree to disagree, -,+: from disagree to agree. 2+ : agree, - : disagree. 3+ : used to agree, - : used to disagree. 4: from agree to extremely agree and vice versa. 5: from disagree to extremely disagree and vice versa.

As clarified in Figure 5, the experimental group recorded more change than the control group and this difference applies to major as well minor changes.

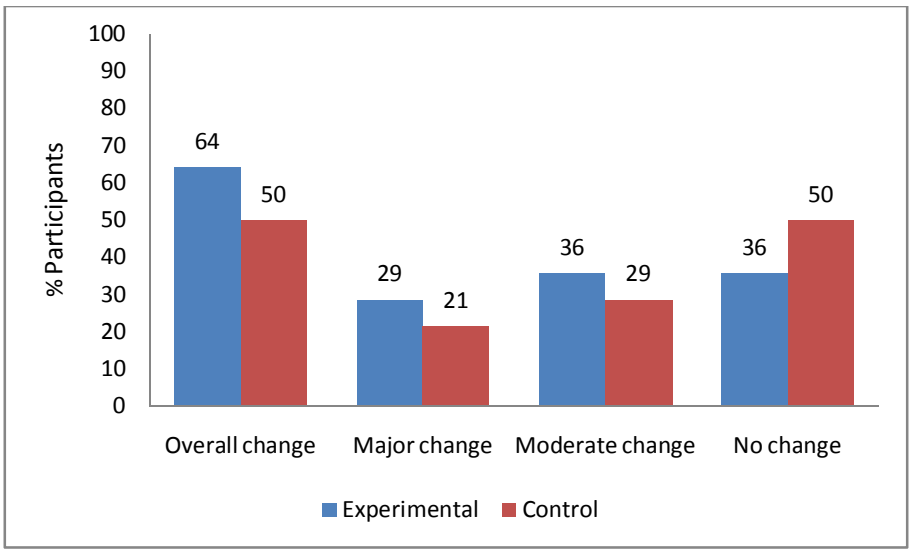


*Figure 5.* Belief Change Regarding Prompts across Experimental Conditions

***Change per item for the prompts factor***

Based on previous research findings, information pertaining to the prompts factor that was provided during the experimental intervention indicated, among other things, that 1) prompts were more effective that recasts; 2) prompts were effective with low and high proficiency learners and 3) prompts targeting morphosyntactic errors were easier to notice than recasts targeting the same error type.

*Experimental group results*

Analyses of gains across the different prompts items indicate that overall while some items (namely items 26 and 28) witnessed meager changes, others underwent clearer transformations (e.g., items 2 and 6), with items 11 and 24 showing the largest gain scores. However, only the former recorded gains that exceeded the retained cut-off point of .50 (see Table 29). Overall, this finding reveals that following the training course, the experimental group held a favorable view towards the use of prompts with low proficiency learners. Results about the number of students having shown change indicates that for item 11, 5 out of the 14 participants demonstrated a major change from disagree to agree or from undecided to agree regarding the use of prompts with low proficiency learners. In addition, two participants showed a moderate change (increase in agreement) for this same item. The remaining 7 participants (i.e., 50% of the experimental group) did not show any signs of change in beliefs-- always regarding item 11. In fact, 3 out of these 7 remained strongly in agreement, two in agreement and two in disagreement with the use of prompts with beginners. In other words, if we exclude those who remained strongly in agreement (i.e., 3 participants), those who were already in agreement at the pre-test (i.e., 2 participants), those whose agreement gained in strength as a result of the training (i.e., 2 participants), as well as those who were in complete agreement with the content of the training, we can say that the beliefs of the remaining 7 participants are the criterion by which the effects of the experimental intervention should be measured. Based on this criterion, it appears that 71% of the experimental group participants (5 out of 7) underwent change that corresponded to the information provided during the experimental intervention.

Table 29

*Change per Questionnaire Item within the Prompts Factor for the Experimental Group*

| Items | Pre-test Mean | Post-test Mean | Gain | Number of participants X type of change | | |
|---|---|---|---|---|---|---|
| | | | | Major | Moderate | No change |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2. Fournir des indices pour aider l'apprenant à corriger sa propre erreur à l'oral est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | 4.07 | 3.86 | -0.21 | 5 | 5 | 4 |
| 6. Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de grammaire à l'oral. | 4.21 | 4.57 | 0.36 | 2 | 4 | 8 |
| 11.Inciter les apprenants à se corriger par eux-mêmes est bénéfique pour les élèves débutants. | 3.21 | 3.93 | 0.72 | 5 | 2 | 7 |
| 16. Répéter l'erreur de l'apprenant pour qu'il la corrige lui-même est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | 3.64 | 3.78 | 0.14 | 3 | 10 | 1 |
| 24.Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de prononciation. | 3.21 | 2.78 | -0.43 | 8 | 2 | 4 |
| 26. Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour | 3.78 | 3.71 | -0.07 | 3 | 7 | 4 |
| 28. Inciter les apprenants à se corriger par eux-mêmes est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | 4.07 | 4.00 | -0.07 | 5 | 5 | 4 |

*Control group results*

Results pertaining to group gains per item indicate that, overall, change in beliefs does correspond to the information provided during the experimental training. Table 30 indicates that items 11 and 26 showed the largest gain scores (1 and 0.57 respectively). The control group participants held a more positive perception as to the use of prompts with

low proficiency learners (item 11) and for vocabulary errors (item 26)--a change that corresponds to the content of the training course. These results indicate similarities between the experimental and control groups regarding changes in beliefs about prompts. Furthermore, if we compare the two groups' performances, it appears that the control group underwent more change than the experimental group (2 significant item changes and 1 significant item change, respectively).

Table 30

*Change Per Questionnaire Item within the Prompts Factor for the Control Group*

| Items | Pre-test Mean | Post-test Mean | Gain | Number of participants X type of change | | |
|---|---|---|---|---|---|---|
| | | | | Major | Moderate | No change |
| 2. Fournir des indices pour aider l'apprenant à corriger sa propre erreur à l'oral est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | 4.36 | 4.29 | -0.07 | 1 | 6 | 7 |
| 6. Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de grammaire à l'oral. | 3.64 | 4.07 | 0.43 | 4 | 5 | 5 |
| 11.Inciter les apprenants à se corriger par eux-mêmes est bénéfique pour les élèves débutants. | 3 | 4 | 1 | 6 | 2 | 6 |
| 16. Répéter l'erreur de l'apprenant pour qu'il la corrige lui-même est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | 3.71 | 4 | 0.29 | 5 | 5 | 4 |
| 24.Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger | 3.64 | 3.57 | -0.07 | 3 | 3 | 8 |

| | | | | | | |
|---|---|---|---|---|---|---|
| les erreurs de prononciation. | | | | | | |
| 26.Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de vocabulaire. | 3.43 | 4 | 0.57 | 4 | 2 | 7 |
| 28. Inciter les apprenants à se corriger par eux-mêmes est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère. | 3.71 | 3.64 | -0.07 | 6 | 1 | 7 |

**Implementation of CF results**

Results on the effects of the training course in relation to the implementation factor are presented below for overall change and change per item respectively.

***Overall change for the implementation factor***

In relation to the implementation of CF (timing and frequency), results of the experimental group revealed that one single participant (7%) recorded a major change (from negative to undecided) in his beliefs as a result of the training. The rest of the 13 participants (93%) did not change their beliefs and remained mostly undecided about the implementation of CF. For the control group, there were 6 students (43%) who changed majorly their beliefs, of whom, there were on reversal from negative to positive, 1 from undecided to negative, 2 from undecided to positive, 1 from negative to undecided and 1 from positive to undecided. The rest of the participants (57%) did not change their beliefs about CF implementation (6 undecided and 1 agree). These results are displayed in Table 31.

Table 31

*Nature of Change for the Implementation Factor*

| Group | Major change | | | Moderate change | | No change |
|---|---|---|---|---|---|---|
| | Total reversal | Undecided to decided | Decided to undecided | Increase/decrease in | Increase/decrease in disagreeme | |

| | | | | | | | agreement | nt | |
|---|---|---|---|---|---|---|---|---|---|
| | +,- | -,+ | + | - | + | - | | | |
| Experimental | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 13 |
| Control | 0 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 8 |

Note: 1 +,- : from agree to disagree, -,+: from disagree to agree. 2+ : agree, - : disagree. 3+ : used to agree, - : used to disagree. 4: from agree to extremely agree and vice versa. 5: from disagree to extremely disagree and vice versa.

Overall and as displayed in Figure 6, the control group obtained more change than the experimental group with regards to the implementation factor.

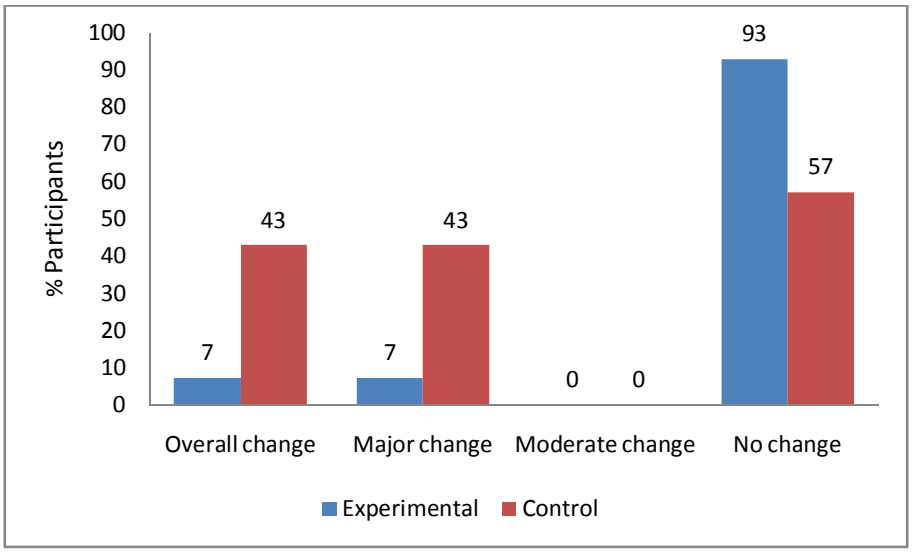


*Figure 6.* Belief Change about Implementation of CF across Experimental Conditions

***Change per item for the implementation factor***

The experimental intervention pertaining to the implementation factor indicated that immediate feedback may be more effective than delayed feedback and that it may be counterproductive to correct all errors.

*Experimental group results*

As seen in Table 32, the CF implementation factor (timing and frequency of providing CF) is the one that witnessed the highest number of changes per item, with items

8, 12, 14, and 18 showing the largest gain scores (-1.07, 0.64, 0.71, and 1.35 respectively). In relation to the timing of CF provision, the experimental group changed from 'undecided' to 'total disagreement' with providing CF at the end of the oral interaction task (item 8) as a result of the training. In the same vein, the experimental group changed from 'undecided' to 'totally agree' with immediate CF during the oral interaction task (items 12 and 18) as a result of the experimental training. Concerning the frequency of providing CF (items 14), the experimental group moved from undecided to agreement with correcting all learners' errors after training. This result contradicted the content of the training course, in which teachers were discouraged from correcting all learners' errors and instead, were advised to select frequent errors that interfere with the conveyed meaning.

Results about the number of students having shown change regarding item 8 (i.e. the provision of CF at the end of the oral interaction task) indicate that 10 out of the 14 participants (i.e., 71%) exhibited a major change, either from agree to disagree (n = 8) or from undecided to disagree (n = 2). In addition, the beliefs of 2 participants underwent moderate change (increase in disagreement) regarding the same item and two participants maintained their disagreement with this item. This means that, at the time of the post-test, 100% of the participants were against the provision of CF at the end of oral interaction tasks, which reflects the information provided during the intervention.

In relation to item 12 (i.e. the provision of CF immediately as soon as the error is made), 6 participants showed major change -either from disagree to agree (n = 5) or from undecided to agree (n = 1)-. In addition, only 1 participant showed a moderate change in his beliefs (increase in agreement) and 7 participants maintained their perceptions about immediate CF (5 in agreement and 2 strongly in agreement). In other words, by the end of the intervention all participants believed that CF should be immediate, as measured by item 12.

For item 14 (i.e. the correction of all learners' errors), six participants demonstrated a major change in their beliefs-either from disagree to agree (n = 4), from undecided to agree (n = 1) or from disagree to undecided (n = 1). In addition, two participants showed moderate change- 1 increase in agreement and 1 increase in disagreement- and 6 participants remained static in their beliefs regarding the correction of all learners' errors and maintained either a positive position (n = 4) or a negative one (n = 2).

Similar to item 8, item 18 -regarding immediate provision of CF during interaction tasks- demonstrated a major change in beliefs for 10 participants-either from disagree to

agree (n = 9) or from undecided to agree (n = 1). In addition, there were two participants who changed moderately their beliefs (increase in agreement). Concerning those who didn't change their beliefs, there were two participants who maintained a positive position (one agree and one strongly agree).

It is important to note that among the above mentioned items that witnessed the largest gain scores, three items (item 8, item 12 and item 18) were about the timing of CF provision and one item related to the frequency of CF (item 14). All changes in relation to timing -being major or moderate- and even all no changes are in line with the content of the training course. That is, in the all cases of no change in relation to timing, participants maintained a positive position towards immediate CF and a negative position to delayed CF. However, change in relation to frequency does not correspond to the content of the experimental intervention.

Table 32

*Change per Questionnaire Item within the Implementation Factor for the Experimental Group*

| Items | Pre-test Mean | Post-test Mean | Gain | Number of participants X type of change | | |
|---|---|---|---|---|---|---|
| | | | | Major | Moderate | No change |
| 3. La rétroaction corrective orale doit se limiter aux erreurs qui nuisent au sens. | 2.57 | 2.14 | -0.43 | 5 | 2 | 7 |
| 8. La rétroaction corrective orale doit être fournie à la fin de la tâche d'interaction orale. | 2.93 | 1.86 | -1.07 | 10 | 2 | 2 |
| 10. La rétroaction corrective orale doit avoir lieu à la fin du cours. | 2.00 | 1.71 | -0.29 | 3 | 6 | 5 |
| 12. La rétroaction corrective orale doit être fournie dès que l'erreur est commise. | 3.50 | 4.14 | 0.64 | 6 | 1 | 7 |
| 14. L'enseignant du français langue étrangère doit corriger | 2.86 | 3.57 | 0.71 | 6 | 2 | 6 |

| | | | | | | |
|---|---|---|---|---|---|---|
| toutes les erreurs orales de ses apprenants. | | | | | | |
| 18. La rétroaction corrective orale doit être fournie durant les tâches d'interaction orale, dès que l'erreur est commise. | 2.86 | 4.21 | 1.35 | 10 | 2 | 2 |
| 21- L'enseignant du français langue étrangère doit corriger toutes les erreurs orales quelle que soit leur nature. | 3.07 | 3.57 | 0.4 | 5 | 3 | 6 |
| 25. L'enseignant du français langue étrangère doit limiter sa rétroaction orale aux erreurs récurrentes. | 2.78 | 2.43 | -0.35 | 6 | 2 | 6 |

*Control group results*

Compared to the experimental group who underwent change for four items, the control group demonstrated change for only two items (item 12 and item 18) pertaining to the timing of CF (see Table 33). With regards to item 12 -regarding immediate CF- that showed .65 gains, seven participants had gone either from 'disagree' to 'agree' or from 'undecided' to 'agree'. Within the same item, three participants exhibited moderate change form 'agree' to 'extremely agree' and four others maintained their agreement with this item. For item 18 that showed .5 gains, six participants had passed either from 'disagree' to 'agree' or from 'undecided' to 'agree' regarding immediate CF showing change in the right direction with the content of the training course. Within the same item, two participants exhibited moderate change form agree to extremely agree and six others maintained their agreement with this item.

Table 33

*Change per Questionnaire Item within the Implementation Factor for the Control Group*

| Items | Pre-test Mean | Post-test Mean | Gain | Number of participants X type of change |
|---|---|---|---|---|

| | | | | Major | Moderate | No change |
|---|---|---|---|---|---|---|
| 3. La rétroaction corrective orale doit se limiter aux erreurs qui nuisent au sens. | 2.14 | 2.5 | 0.36 | 4 | 6 | 4 |
| 8. La rétroaction corrective orale doit être fournie à la fin de la tâche d'interaction orale. | 2.79 | 2.64 | -0.15 | 5 | 3 | 6 |
| 10. La rétroaction corrective orale doit avoir lieu à la fin du cours. | 2.21 | 2.5 | 0.29 | 3 | 4 | 7 |
| 12.La rétroaction corrective orale doit être fournie dès que l'erreur est commise. | 3.21 | 3.86 | 0.65 | 7 | 3 | 4 |
| 14. L'enseignant du français langue étrangère doit corriger toutes les erreurs orales de ses apprenants. | 3.36 | 3.71 | 0.35 | 2 | 5 | 7 |
| 18.La rétroaction corrective orale doit être fournie durant les tâches d'interaction orale, dès que l'erreur est commise. | 3.14 | 3.64 | 0.5 | 6 | 2 | 6 |
| 21- L'enseignant du français langue étrangère doit corriger toutes les erreurs orales quelle que soit leur nature. | 4.21 | 4 | -0.21 | 2 | 2 | 10 |
| 25. L'enseignant du français langue étrangère doit limiter sa rétroaction orale aux erreurs récurrentes. | 2.5 | 2.5 | 0 | 4 | 2 | 8 |

**Importance factor results**

Results on the effects of the training course in relation to the importance factor are presented below for overall change and change per item respectively.

***Overall change for the importance factor***

In relation to the importance of CF, results of the experimental group (n=14) revealed that only 4 participants (29%) underwent some change (all major), 1 from 'undecided' to 'negative', 2 from 'positive' to 'undecided' and 1 from 'negative' to 'undecided'. The rest of the 10 participants (71%) remained undecided about the importance of CF after training. The results for the control group are similar to those of the experimental. Hence, as for the experimental group, only 4 students (29%) from the control group (n=14) underwent major change in beliefs, 1 from 'undecided' to 'positive', 1 from 'positive' to 'undecided' and 2 from 'negative' to 'undecided'. The remaining 10 students in the control group did not change their beliefs about the importance of CF, with 9 remaining undecided and 1 in agreement (see Table 34). In other words, a quarter of the change that occurred in each of the two groups corresponds to clear cut change (negative in the experimental group and positive in the control group). The remaining three quarters of the change represent a move towards neutrality in both groups. In other words, both groups remained equally undecided at the time of post-test (see Figure 7).

Table 34

*Nature of Change for the Importance Factor*

| Group | Major change | | | | | | Moderate change | | No change |
|---|---|---|---|---|---|---|---|---|---|
| | Total reversal | | Undecided to decided | | Decided to undecided | | Increase/decrease in agreement | Increase/decrease in disagreement | |
| | +,- | -,+ | + | - | + | - | | | |
| Experimental | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 10 |
| Control | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 10 |

Note: 1 +,- : from agree to disagree, -,+: from disagree to agree. 2+ : agree, - : disagree. 3+ : used to agree, - : used to disagree. 4: from agree to extremely agree and vice versa. 5: from disagree to extremely disagree and vice versa.

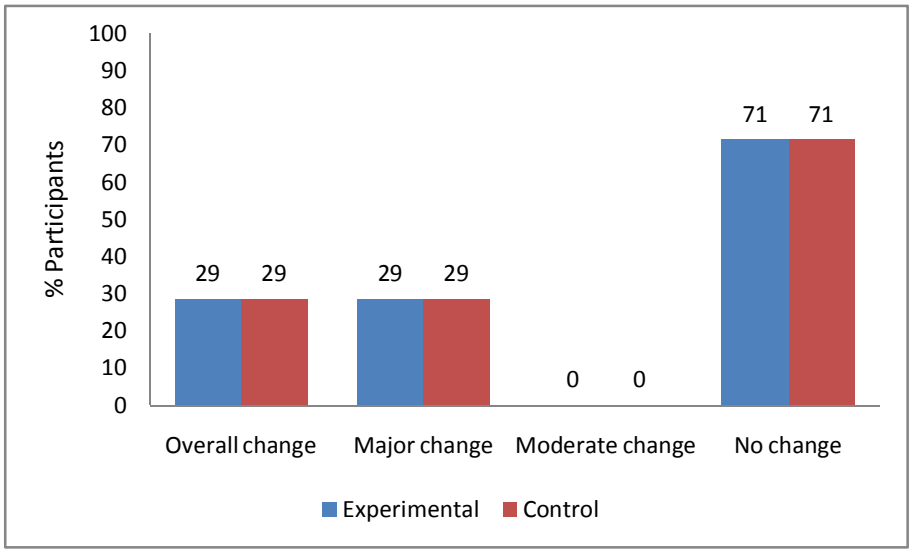


*Figure 7.* Belief Change for the Importance Factor across Experimental Conditions

***Change per item for the importance factor***

*Experimental group results*

Analyses of gain scores per item and of the number of participants having undergone the different belief change patterns relating to the importance of CF indicate that items 7 and 17 showed the largest gain scores (see Table 35). Results about the number of students having shown change indicates that for item 17, nine participants showed a major change -either from agree to disagree (n=5), from disagree to agree (n=2), from undecided to disagree (n=1), or from undecided to agree (n=1)- in their beliefs regarding the effects of CF on students' motivation. In addition, only two participants from the experimental group moderately changed their beliefs (increase in disagreement) regarding this item. Concerning those who did not show any change in beliefs regarding this item, there were only three participants, in which two remained strongly disagreed and one disagreed about the idea that CF affects learners' motivation. For item seven (CF interrupts learner's communication), four participants changed their beliefs either from 'undecided' to 'disagree' or from 'agree' to ''disagree'. Furthermore, four other participants witnessed moderate change (increase in disagreement) and the remaining six

participants did not change their beliefs and continued to disagree with the idea that CF interrupts learners' communication.

Table 35

*Change per Questionnaire Item within the Importance Factor for the Experimental Group*

| Items | Pre-test Mean | Post-test Mean | Gain | Number of participants X type of change | | |
|---|---|---|---|---|---|---|
| | | | | Major | Moderate | No change |
| 7. La rétroaction corrective orale entrave les tentatives de communication de l'apprenant. | 2.36 | 1.78 | -0.58 | 4 | 4 | 6 |
| 13. La rétroaction corrective orale favorise l'apprentissage du français langue étrangère. | 4.28 | 4.43 | 0.15 | 0 | 4 | 10 |
| 17. La rétroaction corrective orale affecte la motivation des apprenants. | 3.00 | 2.28 | -0.72 | 9 | 2 | 3 |
| 20. La rétroaction corrective orale doit être évitée dans les classes d'anglais langue étrangère. | 1.28 | 1.14 | -0.14 | 0 | 6 | 8 |
| 23. La rétroaction corrective orale est indispensable en français langue étrangère. | 4.43 | 4.57 | 0.14 | 2 | 5 | 6 |

*Control group results*

For the control group and as it appears in Table 36, there is only one item (item 13) that demonstrated a large score gain (above .50) in relation to the effectiveness of CF for FL learning. For this item, two participants went from 'undecided' to 'agree', five from 'agree' to 'extremely agree' and seven maintained their positive position regarding effectiveness of CF.

Table 36

*Change per Questionnaire Item within the Importance Factor for the Control Group*

| Items | Pre-test Mean | Post-test Mean | Gain | Number of participants X type of change | | |
|---|---|---|---|---|---|---|
| | | | | Major | Moderate | No change |
| 7. La rétroaction corrective orale entrave les tentatives de communication de l'apprenant. | 3 | 2.86 | -0.14 | 6 | 2 | 6 |
| 13.La rétroaction corrective orale favorise l'apprentissage du français langue étrangère. | 4.14 | 4.64 | 0.5 | 2 | 5 | 7 |
| 17. La rétroaction corrective orale affecte la motivation des apprenants. | 2.36 | 2.5 | 0.14 | 6 | 3 | 5 |
| 20. La rétroaction corrective orale doit être évitée dans les classes d'anglais langue étrangère. | 1.07 | 1.43 | 0.36 | 1 | 3 | 10 |
| 23. La rétroaction corrective orale est indispensable en français langue étrangère. | 4.5 | 4.71 | 0.21 | 1 | 5 | 8 |

*4.3.1.2 Corrective feedback choices section results*

This section presents results of the 2nd questionnaire section on belief change. In this section of the questionnaire, participants were asked to rank the different CF techniques (recasts, repetition, elicitation and metalinguistic feedback) they would use to react to each error type (grammatical, phonological and vocabulary) and- as explained in the pre-test section- analyses were limited to the first two techniques of choice because participants did not necessarily rank all techniques. Results of participants' CF choice change are presented below in relation to each error type.

**Grammatical errors CF results**

Results on the post-test for the 1st choice indicated that elicitation and metalinguistic feedback were identically the experimental group's favorite first choice (43% of participants) after the training course, while the pre-test findings show a clear preference for elicitation (i.e. 36% of participants ranked it as their first choice). In other words, the experimental group's beliefs about the effectiveness of prompting techniques (elicitation and metalinguistic feedback) for grammatical errors became more evident following the training. Interestingly, recasts that were the participants' favored 1st choice (29%) at the pre-test became their least favorite 1st choice technique (7% of participants) by the time of the post-test. On the other hand, most of the control group preferred metalinguistic feedback (43%) as a first choice in the post-test while they preferred elicitation (50%) in the pre-test. Besides, the rate of those who preferred recasts as a 1st choice in the control group remained static from pre-test to post-test (14%).

In relation to second choice, the experimental group preferred metalinguistic feedback in the pre-test (43%), while they showed a preference for elicitation and metalinguistic feedback during the post-test (43% and 36% respectively). However, the control group showed a preference for repetition-as a second choice- in the pre-test (43%), which was also maintained during the post-test (50%). The experimental group and control group results are displayed in Tables 37 and 38 respectively.

Table 37

*Experimental Group's CF Choices for Grammatical Errors*

| | Experimental group (grammatical CF) (N=14) | | | |
|---|---|---|---|---|
| | 1st choice pre-test | 1st choice post-test | 2nd choice pre-test | 2nd choice post-test |
| Recasts | 29% | 7% | 7% | 7% |
| Repetition | 14% | 7% | 17% | 14% |
| Elicitation | 36% | 43% | 33% | 43% |
| Metalinguistic feedback | 21% | 43% | 43% | 36% |

Table 38

*Control Group's CF Choices for Grammatical Errors*

| | Control group (grammatical CF) (N=14) | | | |
|---|---|---|---|---|
| | 1st choice pre-test | 1st choice post-test | 2nd choice pre-test | 2nd choice post-test |
| Recasts | 14 % | 14 % | 7 % | 0 % |
| Repetition | 7 % | 14 % | 43 % | 50 % |
| Elicitation | 50 % | 29 % | 14 % | 14 % |
| Metalinguistic feedback | 29 % | 43 % | 36 % | 36 % |

Overall, learners' perceptions as to the effectiveness of prompting techniques (i.e., elicitation, metalinguistic feedback and repetition) was evident at the pre-test for both groups and grew stronger at the post-test for the experimental group only, while the control group did not show any evident change. Furthermore, the experimental group's reinforced conviction about the effectiveness of prompting techniques has led them to view recasts less favorably. This pattern was not obtained for the control group whose beliefs about recasts remained unchanged at the post-test.

**Phonological errors CF results**

For the experimental group, results pertaining to CF on phonological errors revealed change in relation to first choice. That is, at the pre-test, participants showed a first choice preference for metalinguistic feedback and elicitation, 36% and 29% of participants respectively. However, at the post-test, the experimental group has shown a preference for explicit and metalinguistic feedback, 43% and 36% respectively. Though, it is important to mention that at the pre-test there was a certain preference for repetition as a first choice to correct phonological errors (21%), this rate had decreased to 0% at the post-test. In relation to second choice, there was a preference for metalinguistic feedback in the pre-test (36%) that had increased during the post-test (43%). However, the rate of those who preferred repetition as a 2nd choice in the pre-test (7%) had increased during the post-test (21%). These results are displayed in Table 39.

Table 39

*Phonological CF Choices for the Experimental Group*

| | Experimental group (phonological CF) (N=14) | | | |
|---|---|---|---|---|
| | 1st choice pre-test | 1st choice post-test | 2nd choice pre-test | 2nd choice post-test |
| Explicit | 14 % | 43 % | 21 % | 14.29 % |
| Metalinguistic feedback | 36 % | 36 % | 36 % | 42.86 % |
| Repetition | 21 % | 0 % | 7 % | 21.43 % |
| Elicitation | 29 % | 21 % | 36 % | 21.43 % |

For the control group, there was a preference for metalinguistic feedback-as a first choice-to correct phonological errors during the pre-test (36%), while in the post-test there was a clear preference for repetition (36%). For the second choice, 43% of the control group preferred elicitation at the pre-test, while at the post-test, they preferred repetition and elicitation equally (36%). These results are displayed in Table 40.

Table 40

*Phonological CF Choices for the Control Group*

| | Control group ( phonological CF) (N=14) | | | |
|---|---|---|---|---|
| | 1st choice pre-test | 1st choice post-test | 2nd choice pre-test | 2nd choice post-test |
| Explicit | 14 % | 14 % | 14 % | 7 % |
| Metalinguistic feedback | 36 % | 21 % | 14 % | 21 % |
| Repetition | 29 % | 36 % | 29 % | 36 % |
| Elicitation | 29 % | 29 % | 43 % | 36 % |

**Vocabulary errors CF results**

Concerning CF on vocabulary errors; the experimental group's preference for metalinguistic feedback as first choice during the pre-test had increased in the post-test from (36%) to (43%). At the same time, the rate of those who preferred elicitation as a first choice in the pre-test (21%) increased during the post-test (36%). On the other hand, the rate of those who preferred repetition and recasts as a first choice in the pre-test (21%) decreased during the post-test (7% and 14% respectively).

In relation to second choice, results showed a shift in the preference of the experimental group from metalinguistic feedback (36%) in the pre-test to elicitation (43%) during the post-test. In addition, the rate of those who preferred repetition-as a 2nd choice- in the pre-test (29%) had considerably decreased during the post-test to 0%. These results are presented in Table 41.

Table 41

*Vocabulary CF Choices for the Experimental Group*

| | Experimental group (vocabulary CF) (N=14) | | | |
|---|---|---|---|---|
| | 1st choice pre-test | 1st choice post-test | 2nd choice pre-test | 2nd choice post-test |
| Metalinguistic feedback | 35.71% | 36 % | 35.71% | 28.57% |
| Recasts | 21.43% | 14 % | 7.14% | 28.57% |
| Repetition | 21.43% | 7 % | 28.57% | 0 % |
| Elicitation | 21.43% | 43 % | 28.57 % | 42.86% |

In relation to the control group, there was a clear preference for elicitation as a first choice for both pre-test and post-test (43% and 36% respectively). Furthermore, the rate of those who preferred repetition-as a first choice- in the pre-test had increased in the post-test from 7% to 21%. In addition, the control group's preference for repetition -as a second choice- in the pre-test (36%) was maintained during the post-test (43%). The control group results are displayed in Table 42.

Table 42

*Vocabulary CF Choices for the Control Group*

| | Control group (vocabulary CF) (N=14) | | | |
|---|---|---|---|---|
| | 1st choice pre-test | 1st choice post-test | 2nd choice pre-test | 2nd choice post-test |
| Metalinguistic feedback | 36 % | 21.43 % | 21 % | 14 % |
| Recasts | 14 % | 21.43 % | 14 % | 14 % |
| Repetition | 7 % | 21.43 % | 36 % | 43 % |
| Elicitation | 43 % | 35.71 % | 29 % | 29 % |

### 4.3.2 Focus group interview results

Focus group interview results exploring change in beliefs are presented below in relation to each of the four factors and their related dimensions. It is important to note that numbers or rates of each type of change (reversal, elaboration, consolidation, pseudo change and no change) refer to instances of change in beliefs made through comparing pre and post comments and participants' statements regarding each CF factor. This fact would make instances of change superior or inferior to number of participants depending on each participant's post-test declarations.

*4.3.2.1 Techniques of corrective feedback (recasts and prompts)*

Results on the pre-test for this factor could be explained through the three above mentioned dimensions (i.e., technique of choice, technique in relation to error type, and technique in relation to learner's proficiency level).

**Technique of choice (recasts versus prompts)**

In relation to technique of choice (i.e., participants' preference of either recasts or prompts), almost all participants (93%) preferred prompts in the pre-test, and all of them (100%) preferred this same technique by the post-test. This fact would make this little change not apparent in the post-test. These results are displayed in Table 43.

Table 43

*Focus Group Change Results in Relation to Technique of Choice*

| pre-test | | post-test | |
|---|---|---|---|
| recasts | prompts | recasts | prompts |
| 7 % | 93% | 0% | 100% |

As explained in the analyses section, change was analysed according to whether participants underwent a reversal, an elaboration, a consolidation, a pseudo- change or no change. To remember, these five categories hold the following meanings: 1) Reversal means the adoption of opposite of previous beliefs; 2) Consolidation happens when initial beliefs become stronger; 3) Elaboration occurs when previous beliefs become totally or partially reconstructed through additional dimensions such as addition or omission of beliefs; 4) Pseudo- change happens when change is difficult to precise and don't belong to either of the remaining categories (i.e., reversal, elaboration, consolidation and no change); and 5) No change when initial beliefs remain intact.

In relation to the technique of choice, instances of change revealed; one reversal, three elaborations, eight consolidations and two pseudo changes (see Table 44).

Table 44

*Type of Change in Relation to Technique of Choice*

| | Reversal | Elaboration | Consolidation | Pseudo change | No change |
|---|---|---|---|---|---|
| Technique of choice | 1 from recasts to prompts | 3 | 8 | 2 | 0 |

The student whose beliefs underwent a reversal as to the use of recasts became more oriented towards the use of elicitation as shown in excerpt 19 (pre-test) and excerpt 20 (post-test).

Excerpt 19

Samia (pre-test):

*Je préfère répéter la phrase de l'élève correctement pour que l'élève prenne en considération la faute pour lui-même*

Excerpt 20

Samia (post-test):

*…pour moi, l'incitation est plus efficace que les autres techniques, même avec cet exemple là. Je vais au cinéma hier, je dis : hier, et je laisse l'élève continuer la phrase correctement.*

In addition, it is important to mention that three elaborations in relation to CF types resulted from more nuanced beliefs about the different CF techniques. That is, at the pre-test, participants expressed preference for recasts or prompts without providing further specifications as to when they would use them. By the time of the post-test, they elaborated their beliefs about their choice of the CF technique, by mentioning other dimensions, such as error type and learner's proficiency level (concepts that were seen in the training) as illustrated in excerpts 21 and 22 and excerpts 23 and 24.

Excerpt 21

Nessrine (pre-test):

*Je préfère le pousser à corriger son erreur*

Excerpt 22

Nessrine (post-test):

*Je préfère les pousser a s'auto corriger et en prenant en considération le type d'erreur*.

Excerpt 23

Ibtissem Kh (pre-test):

*La façon de corriger doit être polie indirecte pour ne pas bloquer l'élève, des fois je le pousse sinon ça sera les mêmes fautes qui se répètent.*

Excerpt 24

Ibtissem Kh (post-test):

*… avec des élèves de niveau avancé pour qu'ils s'auto-corrigent, je préfère l'incitation*.

In addition, there are two participants -having a certain teaching experience- whose beliefs underwent pseudo change (other change). Pseudo change happens when change don't belong to either of the remaining categories (i.e., reversal, elaboration, consolidation and no change). As an example, a participant became convinced about the efficacy of prompts, but due to classroom constraints such as time and number of learners in the classroom, she feels forced to use recasts to save time and to adapt to the big number of learners (see post-test Excerpts 25 and 26 ).

Excerpt 25

Amani (post-test):

*C'est vrai que l'incitation est plus efficace, ça aide l'apprenant à se prendre en charge, mais la reformulation est plus rapide dans une classe….mais il y a aussi le facteur temps, peut-être reformuler et dire pourquoi ça c'est faut et ça c'est correcte, c'est plus rapide que d'inciter, car certain élèves prennent beaucoup plus de temps que d'autres pour faire revenir leurs connaissances. Lorsqu'on donne des indices, les élèves parfois se perdent, ils vont être troublés.*

Excerpt 25

Amel (post-test):

*un autre problème qui se pose chez nous c'est le nombre d'élèves dans la classe, ça veut dire qu'on n'a pas le choix, on doit reformuler et on passe, sinon ça sera une perte de temps si on s'arrête à chaque fois …*

**Technique in relation to error type (recasts versus prompts)**

Concerning the technique in relation to error type, results revealed a change in the participants' beliefs. Change in relation to this belief was almost exclusively in the form of elaborations for recasts and prompts (27 elaborations for the 14 participants). To remember, this number of elaborations refers to the participants' instances of change-relevant to techniques and error type- in their post-test statements and not to the participants themselves. Furthermore, this high number of elaborations (27) superior to the number of participants (14) is related to the fact that each of the 14 participants expressed more than one elaboration in their answer to the question during the post-test making reference to the three error types (grammatical, phonological and lexical) in relation to the two proficiency level (low and high). That is, one participant's beliefs regarding one question can contain more than one category of change or multiple instances of the same

change (e.g., 4 instances of elaboration). At the pre-test the 14 participants expressed a variety of responses in relation to each error type such as giving synonyms, using photos and reading books to correct vocabulary errors. However, they rarely mentioned recasts or prompts to correct each of the three error types. However, at the post-test, they provided more elaborate answers with respect to the use of each technique in relation to the different error types. These elaborations are illustrated by excerpt 27 (pre-test) and excerpt 28 (post-test).

Excerpt 27

Mehdi (pre-test):

*J'ai tendance à lui dire, 'répète ce mot là'.*

Excerpt 28

Mehdi (post-test):

*La reformulation est bonne pour les erreurs phonologiques, je préfère les techniques incitatives pour les erreurs grammaticales et lexicales, comme on a vu dans la formation.*

There are also two reversals, in relation to error type. One participant had attributed prompts for correcting phonological errors in the pre-test, while in the post-test, he changed his beliefs towards using recasts for this error type. Another participant preferred using recasts to correct vocabulary errors at the pre-test, however, during the post-test he changed his beliefs and opted for prompts to correct this same error type (see excerpts 29 and 30).

Excerpt 29

Meriem (pre-test):

*je lui corrige l'erreur directement et je lui dis le mot directement car c'est du bagage linguistique. je ne peux pas donner des indices pour ce genre d'erreur*

Excerpt 30

Meriem (post-test):

*… pour le vocabulaire c'est les techniques incitatives*

**Technique in relation to learner's proficiency level (recasts versus prompts)**

For technique in relation to learner proficiency level, results revealed almost elaboration changes in the participants' beliefs. In the pre-test, the 14 participants expressed a variety of responses. However, at the moment of the post-test, the entire experimental group (14 participants) changed their beliefs. These changes consisted of 23 elaborations, 5 reversals, and 4 consolidations. This high number of elaborations (23) superior to the number of participants (14) is related to the fact that each of the 14 participants expressed more than one elaboration in their answer to the question during the post-test. That is, one participant's beliefs regarding one question can contain more than one category of change or multiple instances of the same change (e.g., 4 instances of elaboration). An example of elaboration is illustrated by excerpts 31 and 32. Excerpts 33 and 34 show a reversal.

Excerpt 31

Mehdi (pre-test):

*Pour niveau avancé, je le pousse à corriger son erreur, pour débutant le pousser*

Excerpts 32

Mehdi (post-test):

*Pour les débutants, les techniques incitatives…, ils vont comprendre, et l'information va rester, ils vont la graver dans leurs cerveau. Pour les avancés, les techniques incitatives sont toujours meilleures et la reformulation est efficace. Pour la reformulation, les débutants peuvent ne pas faire attention et croire que l'enseignant est entrain de répéter la même chose, surtout dans la grammaire, il peut ne pas remarquer la correction.*

Excerpts 33

Samia (pre-test):

*…pour débutant, on favorise la correction directe et on explique l'erreur directement, pour les avancés je les pousse indirectement.*

Excerpts 34

Samia (post-test):

*…pour un avancé je reformule et pour un débutant j'incite.*

*4.3.2.2 Implementations of CF techniques (timing and frequency)*

Results about the implementation of the CF techniques could be explained in relation to moment and frequency of providing CF. Regarding the moment of providing CF, results revealed a significant change in the student teachers' beliefs; that is to say, before the training, the majority of the student teachers (71%) were against immediate CF, however, at the end of the training course this percentage reached/ dropped to reach 7%. In other words, the majority of student teachers changed their initial beliefs about ulterior CF and became convinced of the importance of immediate CF provision (93%). These results are displayed in Figure 8.

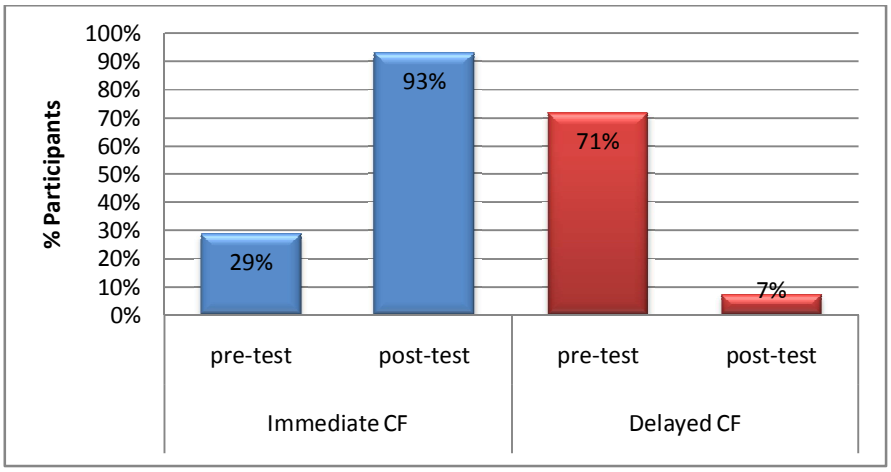


*Figure 8.* Focus Group Change in Relation to Timing of CF

In relation to types of change regarding implementation factor, results revealed 11 reversals, eight elaborations, six consolidations and four no changes. Results in relation to types of change are described below in relation to the two dimensions (timing and frequency of CF).

In relation to timing of CF, there are nine reversals (64% of the participants' post-test statements on CF timing), four consolidations (29% of the participants' post-test statements on CF timing), no elaborations and one no change (7% of the participants' post-test statements on CF timing). These results are displayed in Figure 9.

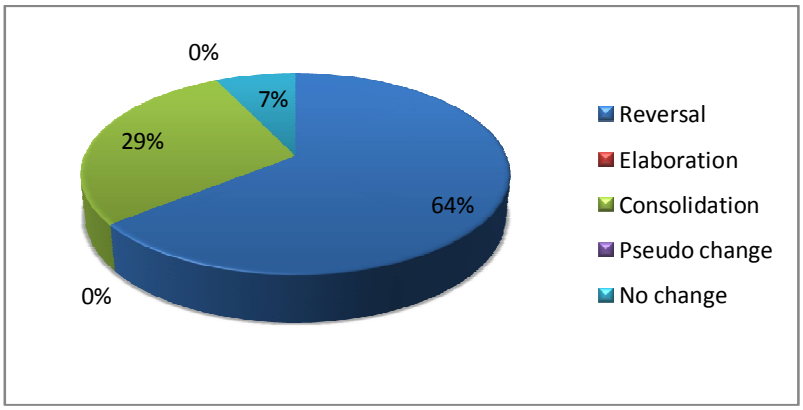


*Figure 9.* Types of Change Results in Relation to Timing of CF

The nine reversals in relation to timing of providing CF were from delayed to immediate CF (see interview Excerpts 10, 11, 12 and 13).

Excerpt 10

Amel (post-test)

*Hier, l'après-midi, j'ai essayé avec un groupe restreint des étudiants universitaires et c'était vraiment efficace de corriger surplace. Un mot ou une expression qui est mal placé ou mal formulé, je le corrige et je passe. Et juste après un quart d'heure, j'ai demandé la même chose, et c'était la surprise, une production correcte par les étudiants sans les erreurs produites la 1ère fois. J'ai demandé aux étudiants de me décrire n'importe quel itinéraire, lors de leurs 1ère reproduction orale, il y avait des erreurs que j'ai corrigées surplace c'est l'impératif, c'est du passé, ceci cela, donc après 15 minutes ou 20 minutes maximum, j'ai demandé la même chose en utilisant les mêmes phrases et tout ça , et c'était la surprise c'était vraiment très efficace a 1000% et bénéfique, une production correcte par les étudiants sans les erreurs produites la 1ère fois, sans répétition. Donc, c'était par curiosité de ma part de tester la correction immédiate qu'on a vue dans la formation car avant ma méthode était de laisser l'élève s'exprimer et à la fin je corrige.*

Excerpt 11

Mehdi (post-test)

*C'est immédiatement, et l'idée que la phrase peut être interrompue est une idée à nuancer, d'après la formation. Au contraire, il faut rectifier l'erreur, dès que l'élève l'a commise et ne pas la laisser à la fin, car l'élève va pas se souvenir de ce qu'il a dit ou où est le problème. Ne pas interrompre l'élève en le corrigeant et le laisser s'exprimer comme il veut est une idée fausse qu'on nous a enseignée.*

Excerpt 12

Lilia (pre-test)

*Pour moi, pendant l'interaction, l'enseignant ne doit pas interrompre l'élève, laisse le parler jusqu'à la fin, ensuite fait une séance spéciale pour les corriger ou bien, à la fin du cours ou à la fin de la discussion de l'élève*

Excerpt 13

Lilia (post-test)

*…pour mémoriser, tout à fait d'accord, la correction doit être immédiate au moment de l'énoncé de l'élève, car si on laisse la correction à la fin, ou on consacre une séance pour corriger les erreurs, l'élève peut trouver ça banale et futile, il n'aurait pas l'air sérieux ou être 100% avec l'enseignant pour mémoriser les erreurs. L'enseignant risque d'oublier les exemples d'erreurs et l'élève aussi.*

In addition, four participants consolidated their beliefs about immediate CF after the training course. However, only one participant did not change her beliefs about timing, that is, her beliefs remained static: She continued to believe in the efficacy of delayed CF at the end of the course (see excerpt 14).

Excerpt14

Amani (post-test): *je laisse les apprenants terminer leurs interactions puis je corrige car ça les perturbe, peut-être qu'ils arriveront plus à parler. Donc c'est à la fin de la tâche.*

In relation to the frequency of CF provision, results revealed two reversals (13% of the participants' post-test statements on CF frequency), two consolidations (13% of the participants' post-test statements on CF frequency), eight elaborations (54% of the participants' post-test statements on CF frequency) and three no changes (20% of the participants' post-test statements on CF frequency). These results are displayed in Figure 10.

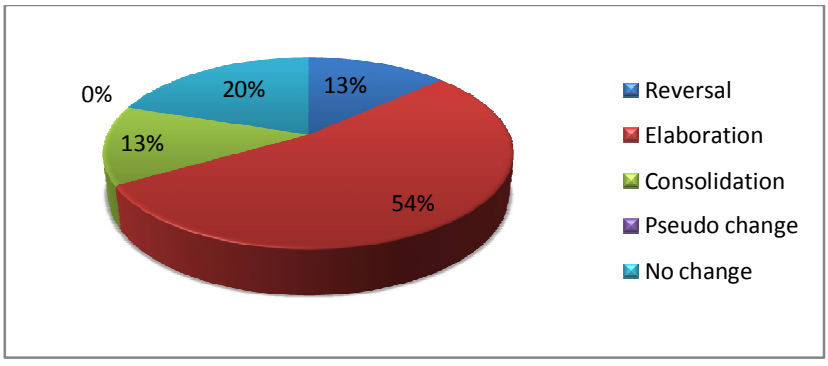


*Figure 10.* Types of Change Results in Relation to Frequency of CF

For the two reversals in relation to frequency of CF, participants' beliefs changed from correcting all errors to correcting only a part of errors such as errors that interfere with meaning and errors related to the course objectives. At the pre-test, Amani, for instance expressed her preference for correcting all errors (see excerpt 15). However, by the time of the post-test, her CF approach became more selective (excerpt 16).

Excerpt 15

Amani *: toutes les erreurs méritent d'être corrigées surtout à l'oral…*

Excerpt 16

Amani: *Je vais corriger les erreurs selon l'objectif de mon cours, mais pas toutes les erreurs, surtout les erreurs qui nuisent au sens*.

In addition, there were eight elaborations in the participants' beliefs in relation to frequency. That is, at the pre-test, the majority of the participants did not seem to have a clear idea about what errors should be corrected, and thus expressed a variety of arbitrary responses such as correcting serious errors, grammatical errors and not all errors. However, at the post-test, these participants developed a more sophisticated and elaborated understanding about what errors should be corrected based on what they had seen in the course, such as correcting recurring errors, errors that interfere with meaning and errors targeted by the course (see excerpts 17 and 18).

Excerpt 17

Mehdi (pre-test):

*…on corrige seulement les erreurs graves ça dépend de l'âge de l'élève,…… on ne peut pas les corriger tous…*

Excerpt 18

Mehdi (post-test):

*On corrige les erreurs visées par l'activité. Si c'est une activité de conjugaison, on corrige les erreurs de conjugaison… etc et il faut corriger même les erreurs qui ne sont pas le sujet de l'activité si ce sont les erreurs qui se répètent*

Although there is an apparent change in the participants' beliefs in relation to frequency of CF, very few beliefs remained static and unchanged in spite of the training. Hence, there were three unchanged beliefs about what errors should be corrected. At the pre-test, two participants argued that phonological errors should not be corrected; these participants still hold this belief by the end of the experimental intervention. In addition, two other participants maintained their beliefs about correcting all errors, in spite of what they have seen in the training.

*4.3.2.3 Importance of CF*

In relation to the importance factor, results revealed change in the experimental group's beliefs after the training course. That is, in the pre-test, 79% of the participants were in favor of CF, whereas in the post-test 100% of the participants expressed favorable views as to the importance of CF. Figure 11 illustrates the results.

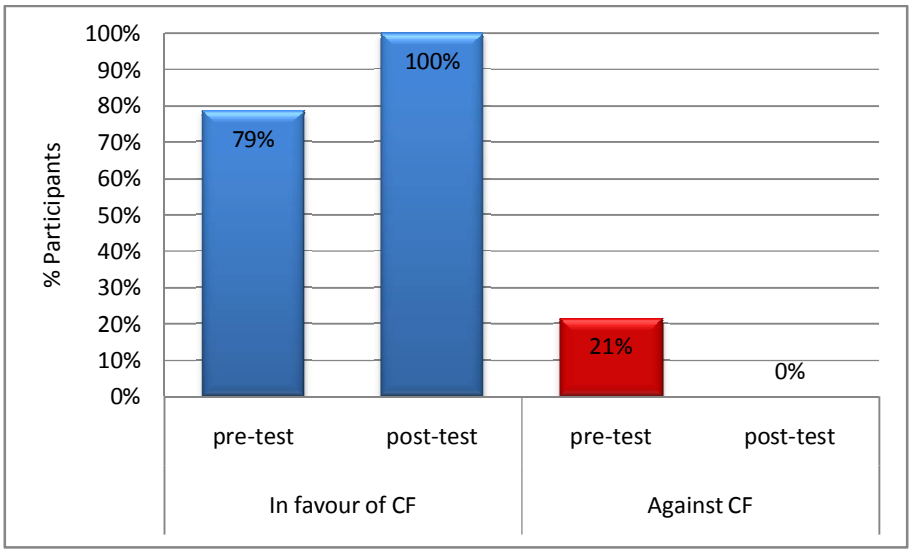


*Figure 11.* Focus Group Change in Relation to Importance of CF

In relation to types of change, there were 11 consolidations (69% of the participants' post-test statements on CF importance) of the participants' beliefs about the importance of CF, indicating that their beliefs about the role of CF became more clear-cut. Furthermore, results revealed two elaborations (12% of the participants' post-test statements on CF importance) concerning the importance of CF in which they expressed a more nuanced belief about the importance of CF provision. In addition, three reversals from negative to positive views about CF were obtained (i.e., 19% of the participants' post-

test statements on CF importance). Excerpt 9 illustrates one participant's belief reversal. These results are displayed in Figure 12.

Excerpt 9

Hichem: *c'est très important de corriger les erreurs des apprenants pour qu'il y ait un apprentissage. Au début, j'ai crus que la RC empêche l'apprentissage, interrompe la communication….etc. mais après qu'on a vu ces techniques de RC et leurs efficacité, j'ai changé carrément d'avis!*

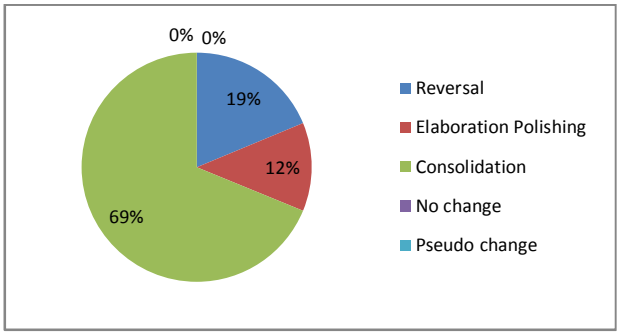


*Figure 12*. Types of Change for the Importance Factor

*4.3.2.4 Summary of the focus group interview results*

As mentioned above, results of the interview revealed change in the student teachers' beliefs regarding CF. This change in beliefs varied across five categories (reversal, elaboration, consolidation, pseudo change and no change). As indicated in Table 45, the factor that presented the highest number of reversals is implementation of CF with eleven reversals (nine for timing and two for frequency). Prompts and recasts are associated to the highest number of elaborations with 29 and 24 elaborations respectively. Importance of CF and prompts factors, in turn, represented the highest number of consolidations with eleven and twelve respectively. Pseudo- change was scarce, occurring twice with recasts. It appears, therefore, that irrespective of change type, very few beliefs remained static following the experimental intervention. In fact, there were four "no changes" related to the implementation factor (three for frequency and one for timing). Further analyses of change patterns indicate that 50% was in the form of elaborations, 27% consolidations, 18% reversals, 3% pseudo change and 2% no change. These results are presented in figure 13.

Table 45

*Types of Change Results for the Four CF Factors*

| Factor | Types of change | | | | | |
|---|---|---|---|---|---|---|
| | Reversal | Elaboration | Consolidation | No change | Pseudo change | Number of statements |
| Importance CF | 3 | 2 | 11 | 0 | 0 | 16 |
| Implementations of CF (timing & frequency) | 11 | 8 | 6 | 4 | 0 | 30 |
| Recasts | 5 | 24 | 5 | 0 | 2 | 36 |
| Prompts | 3 | 29 | 12 | 0 | 0 | 44 |
| Overall factors | 22 | 63 | 34 | 4 | 2 | 125 |

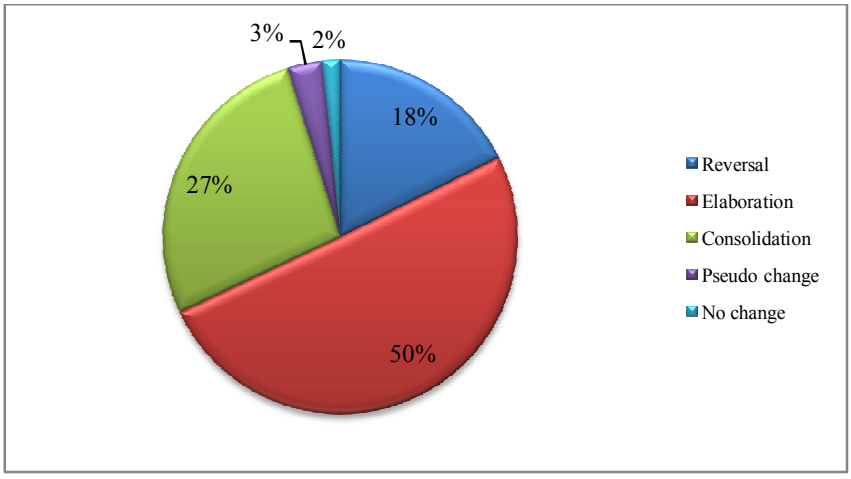


*Figure 13*. Types of Change from the Focus Group Data

### 4.3.3 Summary of the results on belief change

In relation to the second research objective (exploring change in beliefs), results revealed that learners' beliefs across the four factors developed and/or changed. For the first questionnaire part, descriptive analyses findings showed change -varying from major to moderate- in the experimental group's beliefs (in all four components) in a greater alignment with the training course. In relation to the factor recasts, post-training results revealed that 86% of the experimental group participants underwent some change compared to 29% in the control group. In addition, 75% of the student teachers whose beliefs have undergone major change in the experimental group viewed the use of recasts less favorably after the training, while 75% of the control group students who underwent major change viewed recasts more favorably. These results were confirmed through descriptive analyses of the items that witnessed the largest change (largest gain scores). That is, the experimental group participants held a more negative perception as to the use of recasts with low proficiency learners (item 3) and they were also reassured in the use of this technique in reaction to pronunciation errors (item 22). Concerning prompts, the two groups either maintained favorable views or viewed it more positively after the training. This finding corroborates those of the 2nd questionnaire part as well as those of the group discussions.

It is important to mention, that recasts and prompts are the factors that underwent the highest number of elaborations. While participants only spoke about the use and eventual effectiveness of recasts, without necessarily calling the technique by its name, at the pre-test, they felt more confident in providing more nuanced answers about the use of different CF techniques by referring to error type and learner's proficiency level.

The Likert-scale questionnaire data indicate that the implementation factor (timing and frequency) witnessed the highest number of changes per item (4 out of the 8 implementation items showed change). The majority of these items (three out of four) relate to the timing of CF. More specifically, the experimental group changed from neutral to total disagreement with providing CF at the end of oral interaction tasks, and changed from neutral to total agreement with immediate CF during oral interaction tasks. These results corroborate those of the group discussions that revealed eleven reversals, eight elaborations and six consolidations for the implementation factor. Most reversals (9 out of 11) related to the timing of CF provision. All of the elaborations pertained to the frequency dimension. Whereas experimental group participants were barely able to explain if teachers

should prioritize any error types to guide their decision to provide or withhold CF at the pre-test, they elaborated their beliefs and included new concepts that were seen in the course such as correcting errors that interfere with meaning. However, it is important to mention that the implementation factor is the only one that exhibited static (unchanged beliefs), though these beliefs are rare (one for timing and three for frequency). For timing, only one participant still believed that errors should not be corrected immediately explaining that immediate CF would disturb learners. On the other hand, there were three participants who did not change their beliefs in relation to the frequency dimension; that is, two participants still believed that phonological errors should not be corrected and one participant maintained correcting all learners' errors regardless of their nature.

### 4.4 Agent of Change in the CF Training Course

In order to identify the training components that led to changes in participants' beliefs, participants were asked the following question "what part of the training course had caused change in your beliefs in relation to CF?". Participants' responses were analyzed descriptively using proportions referring to participants' choice of the first, second or third part of the training course. As a reminder, the first part of the course targeted the importance oral interaction. The second part of the course presented an overview of empirical CF studies (methodology and results) in relation to different CF techniques. The third part of the course (i.e., the practical component) includes implementing an oral interaction activity once at the beginning of the intervention and once more at the end. While the first served to identify students' pre-existing beliefs and was used as the basis of subsequent discussions, the second aimed to help learners put to practice their new beliefs. Analyses revealed that 100% (the whole experimental group) preferred the second part of the experimental training, 29% of them preferred the third component and 0% (none of them) preferred the first part. As described in the methodology chapter, the second part of the training course covered descriptive and experimental studies about CF, all of which figure in the empirical review of the present study (e.g., Lyster & Ranta, 1997; Sheen, 2004; Mackey et al., 2000; Ammar & Spada, 2006). Participants appreciated this part of the training because it contained information that was totally new to them (see excerpts 35, 36, and 37). In fact, the entire experimental group affirmed knowing only the technique of recasts-and did not even know its name before the training (see excerpt 38).

Excerpt 35

Mehdi: *On a eu de nouvelles connaissances par cette formation, elle nous a ouvert une nouvelle fenêtre qu'on n'a pas connue avant….*

Excerpt 36

Mehdi: *Pour la RC c'est la 2ème séance ou on a vu les techniques de RC. Je ne savais pas qu'il y a différentes techniques de correction, et qu'il faut utiliser cette technique pour telle erreur et tel niveau d'élève.*

Excerpt 37

Hichem: *ce qui m'a laissé changer d'avis et m'a prouvé que ces stratégies sont efficaces, en voyant le cours – sont surtout les résultats de ces recherches- on a trouvé qu'on doit corriger les erreurs immédiatement, et que ces stratégies sont efficaces pour une communication orale bien menée.*

Excerpt 38

Oussama*: Elle nous a donné des nouvelles solutions et techniques pour corriger les erreurs. Au début, je connais seulement la technique de reformulation c-à-d. qu'on donne seulement la forme correcte. Mais, après la formation, je connais maintenant de nouvelles techniques comme l'incitation et l'indice métalinguistique.*

Two participants mentioned the element about the importance of accuracy and CF seen in the first part of the course (introduction) as an agent of change in their beliefs (see excerpt 39).

Excerpt 39

Amani: *il y a aussi le point de l'aisance et la fluidité contre la précision. Au début, je ne savais que c'est la fluidité qui comptait, et qu'on n'est pas obligé de regarder la précision ou de corriger l'élève. On s'est focalisé avant sur l'aisance et la fluidité plus que la précision. La première partie de la formation m'a permis de voir l'importance de la précision.*

The third part of the training was at the origins of belief change for 29% of the participants. As mentioned in the methodology chapter, in the third part of the experimental intervention the experimental group participants had to enact what they learnt by teaching different activities to their classmates (e.g., 'spot the difference' and 'alibi game'). They were explicitly told to apply what they learnt during the first two parts of the training. See excerpts 41 and 42 about the role of enactment in belief change.

Excerpt 41

Amina: *La 3ème séance c'est pour la pratique, où on a concrétisé la situation et les règles qu'Ahlem nous a données. Par exemple, on a vu les techniques de RC théoriquement dans la 2ème séance, tandis que dans la 3ème séance on a concrétisé ce qu'on a fait la séance passé. C'était bénéfique.*

Excerpt 42

Hemama: *et pour cette activité elle est bonne (3ème séance de formation et l'alibi qui a un objectif très important), elle nous a appris à pousser les élèves à parler, et à corriger leurs erreurs. Ça nous a aidés à réfléchir sur comment on va corriger les erreurs de nos élèves.*

### 4.5 Summary of the Three Research Question Results

In relation to the first research goal (initial beliefs), results revealed that student teachers'pre-existing beliefs were either misaligned or neutral with CF research. That is to say, in the pre-test, student teachers had a preference for delayed CF over immediate CF and they didn't have a clear idea about which errors should be corrected. Furthermore, participants demonstrated a neutral position as to which technique should be used to correct different error types for different proficiency level learners, and in most cases they either expressed non specified responses or did not respond, which shows a lack of information. However, the participants held general positive beliefs about CF importance and the effectiveness of prompts.

In relation to the second research goal (exploring change in beliefs as a result of the training course), results revealed development and/or change across the four factors on the majority of the experimental group's beliefs varying from major to moderate change. Furthermore, when it occurred, change took a variety of types varying from reversal, elaboration, consolidation, and pseudo change. Beliefs that underwent the most dramatic change (almost reversals) are beliefs related to the effectiveness of recasts and timing of CF. Beliefs related to importance of CF, prompts and frequency of CF had also witnessed development and change (varying between elaboration and consolidation). As an evidence of that change in beliefs, multiple interviewees described the shift in their beliefs when they admitted receiving "a training of five years during three days". However, it is important to note that very few beliefs had remained static for a handful of student teachers who did not change many of their CF beliefs. These students and these CF beliefs are very rare.

The third research goal explores the participants' perceptions ofparts or dimensions of the training course that have caused change (agent of change)in CF beliefs. The entire experimental group (100%) preferred the second part of the experimental training, 29% of them preferred the third component and 0% (none of them) preferred the first part. The experimental group participants described clearly the course dimensions responsible for change in their beliefs. In their responses, they cited information andtechnical terms covered in the course, such as the names of the different CF techniques, the various dimensions to take into account while providing CF (error type and learner's proficiency level). They also referred to their dramatic change from delayed to immediate CF and their experience with the Alibi game during the course. The participants' responses demonstrated that they were aware of change and that they were exposed for the first time to the content of the training course.

# CHAPTER 5: DISCUSSION

Investigating teachers' beliefs is important in language teaching and CF research. As mentioned early in this dissertation, teachers' beliefs affect and guide their practices (e.g., Bastukmen, Loewen & Ellis, 2004; Pajares, 1992). The present study sets out to investigate the effects of training on FFL Algerian pre-service teachers' beliefs about CF and to identify the training components at the origins of the obtained change. The present chapter discusses the findings with respect to each of the three research questions. It also outlines the pedagogical implications of the obtained results and delineates the limitations of the present study and directions for future research on teachers' beliefs about CF and L2 or FL teaching.

## 5.1 Summary and Interpretation of the First Research Question Results: Pre-existing Beliefs

The first objective of the present study was to explore pre-service teachers' pre-existing beliefs. Data pertaining to this research question were gathered through a two-part questionnaire that that was administered to all participants and which included two parts. The first part of the questionnaire consisted of twenty-seven 5-likert scale questions that covered four CF factors (recasts, prompts, CF implementations and CF importance). The second part presented instances of different error types to which participants were asked to choose the CF technique they preferred as first and second choices. In addition, a semi-structured focus group interview was conducted with the experimental group student teachers. Results pertaining to the questionnaire are presented first, one questionnaire section at a time, followed by the discussion group results. Attempts are then made to interpret them.

Data obtained from the Likert-scale questions section indicate that before the experimental training course, participants were somehow undecided about the efficiency of recasts (pre-test means for the experimental and control groups were 3.50 and 3.16 respectively) and its use with different error types and with learners of different proficiency levels. These same participants held more favorable views regarding the use of prompts. Pre-test means for the prompt factor for the experimental and control groups were

3.75, 3.64, respectively. With regards to the implementation factor, which covered beliefs about the timing of CF (immediate versus delayed) as well as its frequency, participants held less favorable views. In fact, pre-test means for this factor were 2.82 and 2.95 for the experimental and control group respectively. Finally, results indicated that participants were undecided about the importance and effects of CF, evidenced by the experimental and control group student' obtained means (3.07 and 3.01 respectively).

For the second part of the questionnaire, results indicated the two groups' (experimental and control) preference for prompting techniques (elicitation and metalinguistic feedback) as a first choice in correcting grammatical errors. In relation to phonological errors, the majority of the two group participants preferred either metalinguistic feedback or elicitation as first and second choices. Finally and with regards to vocabulary errors, the two groups preferred elicitation and metalinguistic feedback as first choices. In other words, both groups preferred CF techniques that prompted learners to self-correct regardless of error type, which corroborates findings from the first part of the questionnaire indicating that learners seemed to have favourable views in relation to the use of prompts.

Results of the focus group interviews revealed that participants preferred prompts over recasts. Regarding the choice of the CF technique in relation to error type, results indicated that the majority of participants who responded preferred using recasts for phonological errors but did not show any clear preference for either technique (i.e. recasts or prompts) for lexical or grammatical errors. Furthermore, the rest of participants either did not respond or expressed a variety of responses that did not indicate their awareness of research and of the different CF techniques teachers can use. Concerning the technique of choice in relation to learners' proficiency level, results indicated that for those who responded (six participants), there was a preference for recasting with beginners (three participants or 50% of those who responded) and for prompting advanced learners to self-correct (three participants or 50% of those who responded).

In relation to the implementation of CF (timing and frequency), results indicated that the majority of the experimental group participants (71%) preferred delayed CF and very few (29%) showed preference for immediate CF provision. In relation to the frequency of CF, no clear preference patterns could be identified. Results revealed a variety of responses (e.g., correcting all errors, addressing serious errors, signalling

grammatical errors only, etc). Pre-training results concerning the importance factor indicated that the majority of the experimental group were in favour of CF.

A quick look at the results across the different data tools indicates that pre-service Algerian teachers' beliefs about CF are barely defined. This is evident in their responses regarding the four factors in the Likert-scale section which turn around the neutral point. This is particularly the case for the implementation and importance factors, the means of which are below 3, and for the recast factor for which the means is slightly superior to 3. Participants' lack of informed beliefs also transpires through the group discussions during which participants could barely respond to the questions posed. This pertains especially to their beliefs regarding the use of the different CF techniques. The embryonic nature of the participants' beliefs may be attributed to the nature of the training that preceded the experimental intervention. As explained in the methodology section, participants were in the second year of their two-year graduate teacher training; they had already finished the program's course component but had not started the thesis part when the intervention took place. It is true that these participants had courses about theories of second language acquisition, teaching methods in general, and the teaching of specific language skills like writing and oral. They also had an evaluation course. As a result, one would expect them to have better defined beliefs about CF. However, this did not turn out to be the case because participants reported that they were told not to correct their students and to opt for delayed CF when deemed necessary. In fact, before the intervention started, participants were asked to implement oral interaction activities that were meant to gauge their pre-intervention CF practices. For technical reasons the data from the observation of this pre-training teaching could not be analysed because most of the interactions were barely audible. However, the researcher's impressionistic analysis of teachers' pre-training practices clearly indicates that the participating pre-service teachers barely reacted to learners' (1st year Licence students of FFL) errors. If we assume that beliefs shape practice (e.g., Bastukmen, Loewen & Ellis, 2004; Pajares, 1992), participants' lack of CF provision can be attributed either to their pre-existing beliefs in the irrelevance of CF to L2 learning or to the absence of clear-cut beliefs about CF and its role in L2 teaching. In the absence of such beliefs, they preferred not to react to errors during their pre-training teaching.

An analysis of beliefs per factor (e.g., beliefs in relation to the use of recasts and prompts) indicates that while Algerian pre-service teachers' beliefs corroborate some previously reported research findings, they run counter a large part of existing research

about CF. For instance, based on descriptive research which established that recasts were teachers' technique of choice in L2 and foreign language contexts (Lyster & Ranta, 1997; Panova & Lyster, 2002; Sheen, 2004), it seems safe to expect Algerian pre-service teachers to hold favourable views about the use of recasts as reported by Hassan (2011) whose research was conducted in Egyptian universities, a context that is similar to the Algerian one. However, pre-service teachers in this context (Algerian) were neutral ( values from 2.5 to 3.49 for "undecided) towards the use of recasts, as demonstrated by their Likert-scale answers, and held more favourable views towards the use of prompts. These findings corroborate, therefore, Basturkmen et al. (2004) whose participating L2 teachers preferred the use of self-correction over recasts. It is worthy to note here that pre-service teachers' favourable views towards prompts emerged from the three sources of data, i.e., both parts of the questionnaire and the group discussions. However, this finding should be interpreted with caution because preference for prompts can be characterised as emergent and not entrenched (the experimental and control groups' means were 3.75 and 3.64 respectively). In other words, instead of being theoretically and empirically founded, results of the pre-test can be characterized as rather random. Their randomness is most probably due to the participants' unawareness of the empirical literature about CF in general and of the differential effects of CF types. This seems to be the most probable factor at the origins of the pre-test results especially when we consider the participants' declarations during the post-test group discussions. As will be explained in the coming sections, most participants indicated at the post-test that their knowledge about CF was quite limited before the experimental intervention started.

In a nutshell, Algerian pre-service teachers' beliefs about the different factors pertaining to the use of CF in L2 learning were quite embryonic and not quite defined at the pre-test in the sense that most means turned around the neutrality point and that participants were barely able to address the factors that were targeted during the group discussions. The fragility of their beliefs can be attributed to their previous training in which CF was barely addressed and empirical research was rarely analyzed. This same fragility makes them the perfect candidates to investigate the effects of training on teacher beliefs because participants are starting with a clean slate, which is likely to provoke the desired "disequilibrium" between their nascent beliefs and the new information (Jensen, 1998; Nuthall & Alton-Lee, 1993).

## 5. 2 Summary and Interpretation of the Second Research Question Results: Beliefs Change

Results of the questionnaire, with its two parts, and of the group discussions in relation to the second research question are summarised and interpreted below.

For the first questionnaire part, descriptive analyses of the experimental and control groups' data were undertaken. Overall, findings showed that, following the intervention, the experimental group exhibited changes of beliefs (in all four components) in a greater alignment with the training course .

With respect to the first two factors relating to the use of recasts and prompts, learners were informed during the training that 1) overall recasts lead to less uptake than prompts (e.g., Lyster & Ranta, 1997; Sheen, 2004), 2) recasts lead to more uptake when targeting phonological errors as opposed to morphosyntactic and lexical errors (Lyster, 1998), 3) learners experience difficulties noticing the didactic function of recasts targeting morphosyntax (e.g., Mackey et al, 2000), 4) low proficiency learners notice and benefit from recasts less than their high proficiency counterparts (e.g., Ammar & Spada, 2006; Philp, 2003), 5) overall prompts are more effective than recasts (e.g., Ammar & Spada, 2006; Lyster, 2004) and 6) prompts are more effective than recasts for low proficiency learners. In relation to the factor recasts, post-training results revealed that 86% of the experimental group participants underwent some change compared to 29% in the control group. In addition, 75% of the student teachers whose beliefs have undergone major change in the experimental group viewed the use of recasts less favorably after the training, while 75% of the control group students who underwent major change viewed recasts more favorably. These results were confirmed through descriptive analysis on the items that witnessed the largest change (largest gain scores). That is, the experimental group participants held a more negative perception as to the use of recasts with low proficiency learners (item 3) and they were also reassured in the use of this technique in reaction to pronunciation errors (item 22).

Concerning prompts, 67% of the students whose beliefs have undergone major or moderate change ( 6 out of 9) in the experimental group viewed prompts more positively after the training. Furthermore, 80% of those whose beliefs did not change (4 out of 5) maintained favorable views towards prompts. For the control group, all participants who underwent change (n = 7) viewed prompts more positively at the posttest. These results were confirmed through descriptive analyses of the items that underwent the largest

change. That is, the experimental group changed from indecisiveness to a more positive position as to the use of prompts with beginners (item 11) and held a more negative belief about the use of prompts for pronunciation errors (item 24). These results indicate an overall preference for prompts by the two groups in the posttest.

Findings from the second part of the questionnaire, for the experimental group, confirmed the patterns that emerged from the Likert-scale items. They indicated an increased preference for elicitations and metalinguistc feedback (i.e., prompts). Furthermore, their preference for recasts in correcting grammatical and lexical errors decreased. They also showed a change in the experimental group's beliefs about the effectiveness of prompts with pronunciation errors. In fact, by the time of the post-test, the experimental group participants selected explicit correction as the technique of choice to target pronunciation errors. However, results for the three error types for the control group barely changed at the time of the post-test. In fact, the participants' favourable beliefs regarding the use of prompts that emerged at the pre-test were maintained at the post-test.

Results of the group discussions reinforced the patterns that were obtained from both parts of the questionnaire. They revealed a big change in the experimental group's preference of CF techniques from providing the correct form in the pre-test into pushing learners to self correct at the post-test. This would indicate a strong preference for prompts as a technique of choice by the whole experimental group. It is important to mention too, that recasts and prompts are the factors that underwent the highest number of elaborations. While participants only spoke about the use and eventual effectiveness of recasts, without necessarily calling the technique by its name, at the pre-test, they felt more confident in providing more nuanced answers about the use of different CF techniques by referring to error type and learner's proficiency level.

With regards to the implementation factor, participants were told that learners prefer immediate and integrated form-focused instruction, i.e., instruction that is provided during and not after communicative activities (Elgün-Gündüz, Akcan & Bayyurt, 2012; Songhori, 2012; Valeo & Spada, 2016) and were provided with theoretical arguments about the eventual benefits of immediate CF (Lightbown, 2008; Spada & Lightbown, 2008). They were also informed that even though researchers call for a selective approach when it comes to CF provision (i.e., not to target all errors and to choose according to the activity and learning objectives), no empirical research comparing the effects of comprehensive versus selective oral CF existed. The Likert-scale questionnaire data

indicate that the implementation factor (timing and frequency) witnessed the highest number of changes per item (4 out of the 8 implementation items showed change). The majority of these items (three out of four) relate to the timing of CF. More specifically, the experimental group changed from indecisiveness to total disagreement with providing CF at the end of oral interaction tasks, and changed from indecisiveness to total agreement with immediate CF during oral interaction tasks. For the control group, only two out of the 8 implementation items showed change in relation to timing. However, it is important to mention that-for the control group-the frequency dimension did not witness any change per item. Concerning change in relation to the frequency of providing CF, results revealed that participants in the experimental group believed in the benefits of comprehensive CF at the time of the post-test, a finding that runs counter the information that was provided during the experimental training.

To remember, only the experimental group participants participated in the group discussions (focus group interviews). Results from the group discussions revealed that there were eleven reversals, eight elaborations and six consolidations for the implementation factor. Most reversals (9 out of 11) related to the timing of CF provision. After showing a clear preference for delayed CF at the pre-test, participants indicated that they believed in the benefits of immediate CF as a result of the training. All of the elaborations pertained to the frequency with which CF should be provided. Whereas experimental group participants-in the pre-test-were barely able to explain if teachers should prioritize any error types to guide their decision to provide or withhold CF, they elaborated their beliefs and included new concepts (dimensions) that were seen in the course such as correcting recurrent errors, errors that interfere with meaning and errors that relate to the learning objectives of the oral interaction task. However, it is important to mention that the implementation factor is the only one that exhibited static (unchanged beliefs), though these beliefs are rare (one for timing and three for frequency). For timing, only one participant still believed that errors should not be corrected immediately explaining that immediate CF would disturb learners. This participant reported having a certain teaching experience with low proficiency university students. On the other hand, there were three participants who did not change their beliefs in relation to the frequency dimension; that is, two participants still believed that phonological errors should not be corrected and one participant maintained correcting all learners' errors regardless of their nature. These results corroborate previous research indicating that some beliefs are apt to

change and develop more than others (Abelson, 1979; Lortie, 1975; Nisbett & Ross, 1980; Rokeach, 1968).

Post-test questionnaire data indicated that the importance factor is the one that witnessed the smallest change (only major change) for the two groups (29%). However, an item analysis indicated that when compared to the control group, the experimental group held a more positive view towards CF. Participants who did not change their beliefs maintained undecided positions. This finding, which does not clearly demonstrate the effects of the training, runs counter the group discussion results which indicated that all experimental group participants expressed a favorable view towards CF. Along those lines, it is important to mention that the importance factor is the one that witnessed the highest number of consolidations.

Based on the second research findings that were summarized above, to what extent can we say that the experimental training influenced teachers' beliefs? As explained by Borg (2011a), answering this question depends on the way impact is operationalized. If impact is defined as radical reversal in beliefs, then the impact of the training provided in the present study was average: only some questionnaire items underwent major change and not all belief changes that emerged from the group discussions were reversals. If, on the other hand, impact is interpreted as a broader concept that encloses a whole range of developmental processes, such as reversal, elaboration and consolidation, then the impact was considerable. In fact, analyses of the questionnaire items indicated that most students moved from the neutrality point, around which they gravitated at the pre-test, to better defined beliefs at the post-test. Furthermore, the "no change" category rarely emerged from the group discussion data. These findings echo previous language studies showing evidence of considerable impact of training on beliefs (Borg, 2011; Busch, 2010; Debreli, 2012; Kerekes, 2001; MacDonald et al., 2001; Matheoudakis, 2007; McGannon, 1998; Cabaroglu & Roberts, 2000; Yuan & Lee, 2014). What is remarkable in the present study is that participants moved from an initial stage in which they were barely able to put words on their beliefs to a new stage where they not only articulated their beliefs but also did so in a nuanced way. Similar findings were reported by Phipps (2007, 2010) whose participating teachers became more aware of their beliefs as a result of teacher training. In other words, the obtained findings indicate that by virtue of teacher training, teachers 1) can become aware of their beliefs, enabling them to verbalize them; 2) can strengthen and

elaborate their beliefs and 3) can develop new beliefs. This positive evidence as to the impact of teacher training can be attributed to two main factors in the present study. First, the participants' pre-existing beliefs were in total misalignment with the ones that were promoted by the experimental training, eventually forcing the learners to reconsider their own views about CF. In a similar vein, Borg (2005a) reported limited impact of training on teacher beliefs imputing it to alignment between participants' current (initial) beliefs and the ones advocated by the training. Second, the experimental intervention contained most of the ingredients that are deemed necessary to bring about change in beliefs. In other words, the course comprised a practice component – both at the beginning and at the end of the experimental intervention- that might have incited learners to think about their beliefs at the onset of the study and to put their new beliefs into practice at the end. It also contained theoretical but also empirical research that gave rise to multiple debates in which the teacher-trainer provided the necessary scaffolding that allowed teachers to think more explicitly about their beliefs, to verbalize them and eventually consolidate, elaborate and even change them.

As mentioned before, some data from the questionnaire and the group discussion indicated that some beliefs are inflexible and less amenable to change, reinforcing previous research findings (Kagan, 1992; Peacock, 2001). This finding should not be used to weaken the benefits of teacher education because change is a long process that is probably not linear. As explained by Guskey (2002), change can bring about anxiety and stress. As a consequence, teachers may be more reluctant to adopt new practices without being sure of their effectiveness or even of their ability to make them work (Lortie, 1975). Discarding practices and beliefs teachers withheld for long years can take time and may not easily change, no matter the evidence that was provided during training. In fact, during one of the post-test group discussions one student indicated that she tried out immediate CF to determine for herself how effective it can be (see excerpt 43). Given that not all students had the luxury to try out the practices that corresponded to their own beliefs, some beliefs remained unchanged by the time of the post-test. This does not exclude change after the training especially when participants get the chance to teach.

Excerpt 43

> *Hier, j'ai essayé avec un groupe restreint d'étudiants universitaires et c'était vraiment efficace de corriger surplace. Un mot ou une expression qui est mal placée ou mal formulée, je le corrige et je passe. Et juste après un quart d'heure, j'ai demandé la même chose, et c'était la surprise, une production correcte par les étudiants sans les erreurs produites la 1ère fois. C'était vraiment très efficace à 1000% et bénéfique. Donc, c'était par curiosité de ma part de tester la correction immédiate qu'on a vue dans la formation car avant ma méthode était de laisser l'élève s'exprimer et à la fin je corrige*

It is worthy to note that the factors that witnessed the most apparent changes, i.e., recasts, prompts and implementation, specifically the timing component, are the ones for which the teacher trainer provided empirical research findings. For the importance factor and the frequency component of the implementation factor, mostly theoretical arguments and meta-analyses results have been provided, which brings about the third research question. Were the obtained findings dependent on the provision of empirical findings? More generally, which training component brought about the obtained results?

### 5.3 Summary and Interpretation of the Third Research Question Results: Agent of Change in Beliefs

The third goal of the present study was to explore the predictor (i.e., agent) of change in the student teachers' beliefs about CF. More precisely, it aimed to discover what part(s) of the CF training course was/were responsible for change in beliefs. As mentioned above in the methodology chapter, the training course included three parts, two of which were theoretical and one practical. The first theoretical part of the course constitutes an introduction and targets issues about oral interaction activities and presents the CF techniques. The second theoretical part of the course presents an overview of empirical CF studies in relation to different CF dimensions such as the distribution of CF techniques, the distribution of the CF techniques in relation to error type, the effects of the CF techniques in relation to learners' proficiency level. The third part of the course (i.e., the practical component) comprises in its turn two parts: implementing an oral interaction activity once at the onset of the intervention and once more at the end. While the first served to identify students' pre-existing beliefs and was used as the basis of subsequent discussions, the second aimed to help learners put to practice their new beliefs. It is important to remember that the whole course is based on a confrontation strategy, through which the student

teachers' beliefs were constantly confronted with the findings of existing research that were made explicit.

Results for this third research question were collected through the participant's responses to a question in which they were asked to name the part of the experimental training course that contributed the most to their change in beliefs. The participants' responses to this question were analyzed descriptively using rates referring to participants' choice of the first, second or third part of the training course. Results for this research question showed a strong preference for the second theoretical part of the training course which presented empirical research findings. More precisely, the student teachers admitted appreciating notably the different CF techniques that they had seen for the first time and issues related to them, such as the appropriate CF technique to use for each error type (grammatical, phonological and vocabulary) and with learners from different proficiency levels. They argued that the second part of the training presented information that was totally new for them. They specifically appreciated the richness of this part (see Excerpt 44).

Excerpt 44

Mehdi: *'Pour la rétroaction corrective c'est la 2eme séance ou on a vu les techniques de rétroaction corrective. Je ne savais pas qu'il y a des techniques de correction, et qu'il faut utiliser cette technique pour telle erreur et tel niveau d'élève.'*

In addition to these results, 29% of the participants mentioned the third part of the course (practical component of the course) beside the second part (theoretical component of the course) as the agent of change. More specifically, the participants highlighted that the "Alibi game" had given them the opportunity to experience a real classroom situation and had offered them a chance to put to practice what they have learnt (see Excerpt 45).

Excerpt 45

Hemama: *et pour cette activité elle est bonne (3$^{ème}$séance de formation et l'alibi qui a un objectif très important), elle nous a appris à pousser les élèves à parler, et de corriger leurs erreurs. Ça nous a aidés à réfléchir sur comment on va corriger les erreurs de nos élèves.*

Participants expressed their great satisfaction with the experimental training and even recommended it for all their colleagues. They repeatedly reiterated that the training was an "eye-opening" experience. Several reported feeling more confident and comfortable in providing a more well-informed answer about the CF issues. One student went as far as claiming that despite its brevity, the experimental intervention taught them more than their previous five years of training "*dans trois jours ont a eu une formation de cinq ans*".

To sum up, the obtained findings indicate that the second part of the training that was devoted to the presentation and discussion of existing empirical findings was the biggest initiator of change, corroborating Fenstermacher's (1986) claims about the inclusion of empirical research in teacher training programs. However, this finding should be interpreted with caution for two reasons. First, it is important to remember that all parts of the training were interconnected in the sense that the first teaching component provided the foundation to identify, confront and provide the ideal platform to upset pre-existing beliefs. This foundation paved the way for the empirical part, allowing it to play its role in the ideal conditions. All of this was intertwined with different debates in which the new information was constantly contrasted with early beliefs and practices, as evidenced by the first teaching activity that took place at the onset of the experimental intervention. The empirical part, in its turn, provided the foundation for the second teaching activity in which, once again, the new teaching practices were analysed in terms of all the information, both theoretical and empirical, that was provided during the training. In other words, instead of trying to figure out the single component at the origins of change of beliefs, future research should probably focus on the ideal combinations and sequencing of the different components. Second, as stated during the interviews, students were rarely provided with empirical research findings during their previous five years of training. In other words, the empirical part stood out as the new element of the training, which might have enhanced its saliency and impact. Different findings might have been used to the presence of such content in their teacher education. While plausible, this hypothesis requires further empirical validation.

These results demonstrate the role of interviews in tracking and understanding the reasons that promote or prevent change in beliefs, and the inability of the questionnaire in reporting such data when it is used in different points in a study (Borg, 2006).

## 5.4 Pedagogical and Teaching Implications

The study of teachers' beliefs is important in that the latter guide their classroom practices (e.g., Bastukmen, Loewen & Ellis, 2004; Pajares, 1992). In other words, preservice teachers' beliefs about CF will determine their future related CF practices. This is why it is important to address teachers' pre-existing beliefs in a teacher training course or program, especially that these pre-existing beliefs act as "selective filters which sieve information presented to them" (Karavas & Drossou, 2010). That is to say, student teachers' pre-existing beliefs influence what they learn from teacher education courses and programs. Earlier identification of these beliefs would help improving them and change or reinforce, therefore, related practices (Pajares, 1992). This study is a contribution to the few studies that investigated the effects of training on pre-service teachers' beliefs about CF.

In relation to change in the student teachers' beliefs, some student teachers attributed change in their beliefs to the results of CF empirical studies seen in the course such as Ammar and Spada (2006). This was confirmed through results on the third research question, in which all the 14 student teachers attributed change in their beliefs to the second part of the course that presented empirical studies on to the efficacy of different CF techniques. This would join Fenstermacher's (1986) emphasis on using empirical research in teacher training programs to affect and change student teachers' beliefs. Furthermore, according to Hunzicker (2004), presenting new information (new ways of thinking) frequently over time ends up by provoking 'disequilibrium' between the teachers' pre-existing beliefs and the new information (Jensen, 1998; Nuthall & Alton-Lee, 1993).

In relation to course design, several attributes of the course may have contributed to the development of the student teachers' beliefs. Most importantly, the confrontation of the student teachers' pre-existing beliefs, which "early awareness rising of pre-existing beliefs" (Cabaroglu & Roberts, 2000, p. 399). This confrontation of the student teachers' beliefs worked under three conditions. First, the CF course has to include a direct experiential activities (Bush, 2010); second, it should make the student teachers' beliefs explicit; and third, the trainees' beliefs should be confronted by other persons, who have alternative beliefs of the same teaching learning situations. For the first condition, in the third part of the CF course which constitutes the practical component of the course (i.e.,

spot the difference task & the alibi game), some of the student teachers acted as teachers by managing the activity and providing CF while others played the role of learners by committing intentionally oral errors as the researcher educator required them to do that. This had given the student teachers opportunities to confront and differentiate old and new information and thus integrate and apply the concepts, strategies and the CF techniques seen in the course. This process could help in the organization and the reconstruction of the old beliefs by removing, or modifying weak pre-existing beliefs and hence raising the student teachers' confidence. Hence, we recommend that language teacher education courses and programs include a practical component as part of the course design. For the second condition, the researcher educator helped the student teachers in making their implicit beliefs explicit through the focus group interviews and course discussions. The focus group interviews offered opportunities for the student teachers to externalize their beliefs, talk about them, discuss and challenge them with their colleagues, as well as with the researcher- educator. This, in turn, raised the trainees' understanding and awareness of their own beliefs (Nespor, 1987). Hence, we recommend the use of small, focus- group discussions (maximum five learners) for classroom practice. In addition, the CF training course helped in making the student teachers' beliefs explicit through the discussions between the teacher educator and the trainees; these discussions would help identifying and targeting the student teachers' beliefs. Once these beliefs become explicit, they will be ready for confrontation and thus for development and change. For the third condition, the trainees' beliefs were confronted by the researcher- educator who used empirical research results to demonstrate the inadequacy or inconsistency of the student teachers' beliefs. As an example, the trainees' pre-existing beliefs about immediate CF were eliminated after a confrontation of these beliefs by the researcher- educator. That is, at the beginning of the course, the trainees were against immediate CF in that they believed that teachers should not interrupt learners during oral interaction. However, after confronting, challenging and discussing their beliefs with the researcher- educator, all of them (the 14 student teachers) become convinced about immediate CF and got rid of their initial beliefs against immediate CF.

To sum up, for training to have an effect, some training techniques must be used. Kagan (1992a) summarized these as follows:

> To promote conceptual change among students, teachers must (a) help students make their implicit beliefs explicit; (b) confront students with the in-adequacy or inconsistency of those beliefs; and (c) give students extended opportunities to integrate and differentiate the old and the new knowledge, eliminating brittle preconceptions and elaborating anchors. (p. 76)

## 5.5 Limitations and Future Research

One limitation aspect of the present study is the absence of observation. Borg (2003) argued that language teachers' cognition including beliefs could not be investigated without referring to what happens in real classroom conditions and thus suggested the use of observation to report on the observable side of beliefs. When used besides questionnaires or interviews, observation is good to check whether teachers really use their stated (i.e., reported) beliefs in their classrooms. Furthermore, to see the effects of a training program on teachers' beliefs and practices, observation before and after training would give more insights on what teachers had learned from the training program (Bartels, 2005).

The number of participants (28 participants that is 14 in each of the two groups experimental and control) in this study is relatively small. Having more participants (a larger sample) would help generalising the obtained results. Furthermore, there are some methodological limitations in relation to the way in which focus group interviews were conducted. That is to say, the focus group interviews were conducted the same way as individual interviews. Focus group questions were asked one by one and each time the participants were solicited for responding in order to collect complete data. One reason for this individual administration could be attributed to the fact that the focus group interviews were designed just before the data collection started (i.e., at the last minute). Furthermore, focus group data were analyzed individually for each participant the same way as individual interviews using content analysis method. This analysis method would reduce the value of the obtained results in that it didn't report or analyse participants' interactions which represent an important criteria in focus group interviews. Furthermore, the use of more reach analysis methods that take in to account participant interactions would give more insights on the results. Furthermore, the focus group interview questions were not

sufficiently open which resulted in a restricted amount of data in the form of short responses and consequently diminishing participant interactions. Failing to perceive focus group interviews as a "forum within which ideas could be clarified" (Kitzinger, 1994, p. 106), the researcher did not adopt the required interventionist style through which she should have asked further questions to urge debate to continue beyond the stage where it ended and to further discuss the different elements that emerged in the initial responses. Future research should make use of more open-ended questions in focus group interviews to permit participant interactions and thus further enrich the results. Researchers should take the time to clearly understand the rudiments of focus group interviews and to pilot test them before moving on to data collection. Another bias not to be neglected is social desirabilityin which "a teacher might be reluctant to endorse a professionally unpopular belief" (Kagan, 1990, p. 427).

Despite attempts of change, very few beliefs remained unchanged. This would evoke the question, why do some beliefs resist change? A possible answer to this question has to do with the notion of "centrality" (i.e., deepness) of beliefs. That is to say, the more a belief is central, the more it will be resistant to change and needs more efforts to be changed (Crahay et al, 2010, Richardson, 1996). In the same direction, Rokeach (1976) argued that if a change occurred in a central belief, this would affect the whole belief system, a thing that does not happen with less central beliefs. Thus, the notion of centrality of beliefs is quite important and has to be considered in teacher training programs. That is, if a training program targeted central beliefs, this latter will automatically resist change, and once a change occurs – after great efforts- it will be maintained and affect the whole belief system (Crahay et al, 2010). In contrast, targeting less central beliefs in a teacher training program would change these beliefs; however a short term change could occur and tends to be blurred over time (Rokeach, 1976 cited in Crahay et al p.110). Crahay et al. (2010) argued that "as early a belief is incorporated into the individual's cognitive system, it will be difficult to dislodge" (p. 108). In contrast, beliefs that are newly acquired are more easy to change, (e.g., Abelson, 1979; Clark, 1988; Munby, 1982; Nespor, 1987; Nisbett& Ross, 1980; Rokeach, 1968). That is why McCarty (1993) argued that some teachers may need a short time to acquire new beliefs and practices while others need months and even years to achieve change. Hence, by knowing possible reasons for resistance in beliefs, future research would try other methods and strategies to provoke

change in beliefs. Furthermore, a more concentration on these beliefs through a second round of attempts of change in training programs would facilitate change. However, it must be admitted that: “Changing teacher behaviour is no easy task, but by becoming familiar with the process of change and the reasons why teachers resist change, instructional leaders can gain a better understanding of how to proceed.” Hunziker (2004, p. 45).

It would be beneficial for future research to explore the impact of CF training courses or programs on in-service teachers' beliefs using data triangulation, by including three data collection measures such as questionnaires, interviews and observations. Furthermore, other research questions need to be addressed. For instance, comparing pre-existing beliefs of pre and in-service teachers and their resistance or flexibility to change.

Furthermore, future research would make use of teacher training courses or programs that contain a real classroom experience, giving the chance to pre-service teachers to put in practice their beliefs and/or explore change. The practicum helps teachers in training gain experience (e.g., Book, Byers & Freeman, 1983). As an example, Kerekes (2001) found that the teachers who followed a course on SLA theories wanted practical applications of the theories they had learned. In relation to the durability of change, future research should follow change in teachers' beliefs over a longer period of time by administering delayed post-tests to see if a change is maintained over time or even longitudinally by administering multiple interviews at different time intervals.

By understanding pre-service teachers' beliefs about CF and agents implicated in changing those beliefs, teacher education will better fit teachers' needs. This study contributes to the field of teacher education by giving teacher trainers an idea about pre-service teachers' CF beliefs. Furthermore, this study contributes to the body of research on teachers' beliefs about CF in general and particularly to research on the impact of training on teachers' CF beliefs. The obtained results will be useful for L2 and FL teachers and allow to complete their training. Hence, this study provides not only a better understanding of L2 or Fl teachers' beliefs about CF, but also helps to identify avenues for teacher intervention and training that can improve L2 teachers' CF practices and L2 learning indirectly. In relation to methodological contribution, the current research presented a fool procedure on the validation of the study's principal data tool (i.e., questionnaire). This validation reduced the number of factors into four factors and thus facilitated data analysis and presentation of the results.

it indicated an eventual effect of a CF training course.

Finally, further research-such as the current study-is certainly needed to report more about development in pre-service teachers' beliefs about CF and to contribute to L2 and FL learning.

### 5.6. Conclusion

The majority of L2 studies that investigated teachers' beliefs in relation to CF are exploratory and descriptive (Basturkmen et al., 2004; Hassan, 2011; Suzuki, 2004; Kamijo, 2004; Kartchava, 2006; Mori, 2002; Schulz, 2001). Furthermore, empirical studies that tried to develop or change teachers' beliefs - especially pre-service teachers' beliefs - in relation to CF are very scarce (Baleghizadeh & Rezaei, 2010; Brown & McGannon, 1998; Bush, 2010; Kamiya & Loewen, 2014; Kerekes, 2001; Peacock, 2001; Vasquez & Harvey, 2010). This study sets out to fill this gap in literature. More specifically, it aims to 1) identify initial beliefs that Algerian pre-service teachers of FFL have about CF; 2) explore change in these CF beliefs -if any- after a CF training course and 3) identify the part of the course that had caused change (agent of change) in the experimental group's beliefs.

A pre-test-immediate post-test design was employed. Two groups of 14 Algerian MA pre-service teachers-one experimental and one control- participated in the study. The experimental group participated in a teacher- training course about CF while the control group did not. The two groups' beliefs about CF were elicited using a pre-test and post-test questionnaire, with only the experimental group responding to a pre-test and post-test interview. The main findings of this study are described below in relation to the three research questions.

In relation to the first research goal (initial beliefs), results revealed that student teachers 'pre-existing beliefs were almost misaligned with CF research. That is to say, in the pre-test, student teachers had a preference for delayed CF over immediate CF and they didn't have a clear idea about which errors should be corrected. Furthermore, participants demonstrated a neutral position as to which technique should be used to correct different error types for different proficiency level learners, and in most cases they either expressed non specified responses or did not respond, which shows a lack of information. However,

the participants held general positive beliefs about CF importance and the effectiveness of prompts.

In relation to the second research goal (exploring change in beliefs as a result of the training course), results revealed development and/or change across the four factors on the majority of the experimental group's beliefs varying from major to moderate change.

Furthermore, when it occurred, change took a variety of types varying from reversal, elaboration, consolidation, and pseudo change. Beliefs that underwent the most dramatic change (almost reversals) are beliefs related to the effectiveness of recasts and timing of CF. Beliefs related to importance of CF, prompts and frequency of CF had also witnessed development and change (varying between elaboration and consolidation). As an evidence of that change in beliefs, multiple interviewees described the shift in their beliefs when they admitted receiving "a training of five years during three days". However, it is important to note that very few beliefs had remained static for a handful of student teachers who did not change many of their CF beliefs, which is quite legitimate given that each student- teacher has his/her interpretation of the course. These students and these CF beliefs are very rare. All these results would demonstrate the success of the training course in developing, elaborating and changing student teachers' beliefs about CF towards a more positive direction.

The third research goal explores parts or dimensions of the training course that have caused change (agent of change) in the experimental group's CF beliefs. The experimental group participants described clearly the course dimensions responsible for change in their beliefs. In their responses, they cited information and technical terms covered in the course, such as the names of the different CF techniques, the various dimensions to take into account while providing CF (error type and learner's proficiency level). They also referred to their dramatic change from delayed to immediate CF and their experience with the Alibi game during the course. The participants' responses demonstrated that they were aware of change and that they were exposed for the first time to the content of the training course.

These findings have an important pedagogical weight in the sense that the training course is based on a confrontation strategy, through which the student teachers' beliefs were confronted to CF research results. As a result, the student teachers' previous beliefs were destroyed when confronted by results of research especially those about the effects of

immediate CF and the effectiveness of recasts. However, before confronting student teachers' beliefs, training courses and programs should identify student teachers' initial beliefs to be able to act on these beliefs. Furthermore, integrating empirical research in the course content would strengthen the power of change.

While this study yielded a number of interesting results, it has some limitations. Most importantly. This study didn't include observation, thus it is difficult to know if changes in beliefs will be integrated in the student teachers' future teaching practices as they continue in their career. Furthermore, this study didn't include a real classroom experience or practicum, which would afford pre-service teachers more opportunities to practice their beliefs and try new beliefs to explore change.

More research is certainly needed to further investigate the current research questions with in-service teachers. Other research questions need to be addressed. For instance, comparing pre existing beliefs of pre and in-service teachers or experienced and novice teachers. This comparison should be made also by reporting on resistance or flexibility to change.

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# APPENDICES

# APPENDIXE 1

## Formulaire de consentement

**Titre de la recherche:** La formation initiale sur la rétroaction corrective et les représentations des futures enseignants de français et de l'anglais langues étrangères en Algérie

**Chercheur :**

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### Directeur de recherche :

Professeure Ahlem Ammar: Professeure agrégée, Département de Didactique, Faculté des sciences de l'Éducation, Université de Montréal.

### A) RENSEIGNEMENTS AUX PARTICIPANTS

#### 1. Objectifs de la recherche

Dans cette recherche, nous voulons étudier l'effet de la formation en lien avec la rétroaction corrective sur les représentations des futures enseignants de français langue étrangère (FLE).

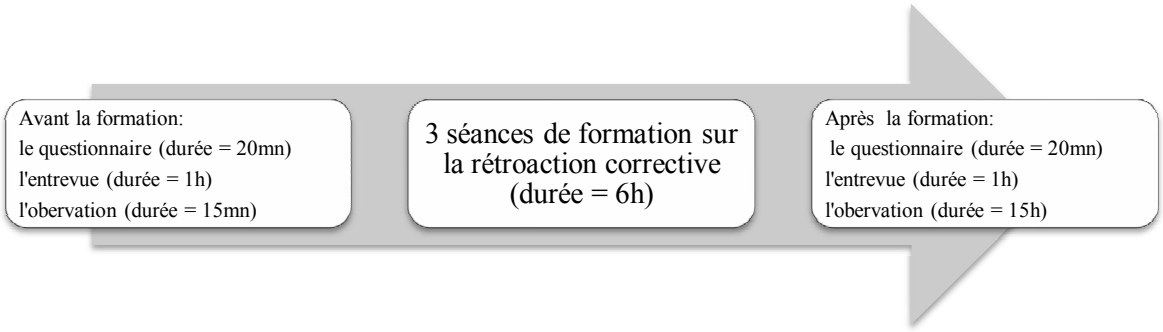
#### 2. Participation à la recherche

Votre participation à cette recherche comprend trois étapes. Lors de la première étape, vous serez invité à répondre à un questionnaire sur les représentations des enseignants en lien avec l'enseignement du FLE. Par la suite, huit volontaires parmi les 30 participants vont simuler le rôle de l'enseignant et gérer l'interaction enseignant-étudiant l'ors d'une activité d'interaction orale (le jeu d'alibi) auprès d'une classe de première année licence de FLE. Le temps alloué pour chaque enseignant est de 15 minutes. Cette activité sera filmé par le chercheur. Ensuite, une entrevue de groupe semi-structurée sera menée auprès d'une quinzaine de volontaires parmi les 30 participants. Ces 15 étudiants -incluant les 8 étudiants qui

ont déjà enseignés- seront divisés en 3 groupes de 5 étudiants pour l'entrevue de groupe. Conduite par le chercheur, cette entrevue va durer 1 heure pour chacun des trois groupes de 5 étudiants, c'est à dire une heure pour chacun des 15 étudiants. Cette entrevue sera filmée et enregistrée. Lors de la deuxième étape, une intervention sera conduite auprès des **30 participants**, pendant laquelle sera fourni des leçons sur l'acquisition des langues à travers 3 séances de deux heures chacune. Une fois que l'intervention est terminée nous reprenons la même procédure pour la collecte de données que l'étape 1 **avec les même participants**. La durée totale de la participation à la recherche sera de 9h10 pour les 8 participants qui vont faire l'activité de l'enseignement, répondre au questionnaire et l'entrevue. Pour les étudiants qui participent juste au questionnaire et à l'entrevue, la durée de participation sera de 8h40. En ce qui concerne les étudiants qui vont juste remplir le questionnaire la durée sera de 6h40. Donc, le temps attribué à chaque étape est de six heures pour la formation, 40 minutes pour le questionnaire, une heure pour l'entrevue et environ 30 minutes pour l'activité de l'enseignement.

Si un participant est dans l'incapacité de se présenter à l'une des séances durant lesquelles une intervention est prévue, il sera exclu de l'analyse des données et les données déjà recueillies seront supprimées.

Voici un schéma du déroulement de la recherche :




**3. Confidentialité**

Les renseignements liés à vous demeureront confidentiels. Chaque participant à la recherche se verra attribuer un numéro et seul le chercheur aura la liste des participants et des numéros qui leur auront été attribués. Ces renseignements personnels seront conservés dans un classeur sous clé situé dans un bureau fermé et seront détruits 7 ans après la fin du projet. Seules les données ne permettant pas de vous identifier seront conservées après cette date, le temps nécessaire à leur utilisation dans le cadre de ce projet. Aucune information permettant de vous identifier d'une façon ou d'une autre ne sera publiée.

**4. Avantages et inconvénients**

En participant à cette recherche, vous nous aidez à comprendre mieux les représentations des enseignants de langues étrangères et à améliorer l'enseignement de ses dernières. De plus, en participant à cette recherche, vous ne courez pas de risques particuliers. Cette étude a pour résultat l'apprentissage de la rétroaction corrective et de ses techniques.

Même si cette recherche contribue à l'amélioration des pratiques enseignantes, le temps consacré à sa réalisation peut être un inconvénient.

**5. Droit de retrait**

Votre participation est entièrement volontaire. Vous êtes libre de vous retirer en tout temps sur simple avis verbal, sans préjudice et sans devoir justifier sa décision. De même, vous êtes entièrement libre de retirer votre consentement et d'arrêter votre participation. Si vous décidez de vous retirer de la recherche, vous pouvez communiquer avec le chercheur, au numéro de téléphone indiqué ci-dessous. Après un tel avis, les renseignements qui auront été recueillis seront détruits.

**6. Compensation**

Chacun des 30 participants recevras une compensation de 20$ chacun.

**7. Diffusion des résultats**

Les résultats de cette recherche seront utilisés pour la rédaction de ma thèse de doctorat et ils seront publiés dans des revues scientifiques.

Les résultats de cette recherche seront également présentés lors de congrès nationaux et internationaux ainsi que durant des ateliers conçus pour la formation des enseignants de français et d'anglais langues étrangères. En aucun cas, l'identité des participants ne sera divulguée durant ces communications car les analyses effectuées seront en lien avec la moyenne des groupes et non pas des individus.

Un résumé vulgarisé des résultats de recherche vous sera envoyé si vous en faites la demande en indiquant l'adresse courriel ou vous aimeriez qu'il vous soit transmis dans l'espace prévu à cet effet à la fin de ce formulaire.

**B) CONSENTEMENT**

Je déclare avoir pris connaissance des informations ci-dessus, avoir obtenu les réponses à mes questions sur ma participation à la recherche et compris le but, la nature, les avantages, les risques et les inconvénients de cette recherche.

Après réflexion et un délai raisonnable, je consens librement à prendre part à cette recherche. Je sais que je peux me retirer en tout temps sans aucun préjudice, sur simple avis verbal et sans devoir justifier ma décision.

Oui Non

Signature : _____ Date : _____

Prénom : _____

Nom du participant _____ _____

Je déclare avoir expliqué le but, la nature, les avantages, les risques et les inconvénients de l'étude.

Signature du chercheur :

Date : _____

Nom : Taddarth Prénom : Assma

Toute plainte relative à votre participation à cette recherche peut être adressée à l'ombudsman de l'Université de Montréal, au numéro de téléphone (514)-343-2100 ou à l'adresse courriel suivante: ombudsman@umontreal.ca (**l'ombudsman accepte les appels à frais virés**).

Pour toute question relative à la recherche ou pour vous retirer du projet, vous pouvez communiquer avec le chercheur Assma Taddarth. Pour toute préoccupation sur vos droits ou sur les responsabilités des chercheurs concernant votre participation à ce projet, vous pouvez contacter le conseiller en éthique du Comité plurifacultaire en éthique de la recherche (CPÉR) au cper@umontreal.ca ou au (514) 343-6111, poste 1896 ou consulter le site: http://recherche.umontreal.ca/participants.»

# APPENDIXE 2

## Certificat d'éthique

Université de Montréal

**Comité plurifacultaire d'éthique de la recherche**

9 avril 2015

Madame Assma Taddarth
Candidate au doctorat
Didactique - Faculté des Sciences de l'éducation

**OBJET: Reconnaissance d'une approbation éthique**

Mme Assma Taddarth,

Le *Comité plurifacultaire d'éthique de la recherche (CPER)* a étudié le projet de recherche intitulé « La formation sur la rétroaction corrective et les représentations et pratiques des futures enseignants de français langue étrangère en Algérie. » et a délivré le certificat d'éthique demandé suite à la satisfaction des exigences précédemment émises.

Notez qu'il y apparaît une mention relative à un suivi annuel et que le certificat comporte une date de fin de validité. En effet, afin de répondre aux exigences éthiques en vigueur au Canada et à l'Université de Montréal, nous devons exercer un suivi annuel auprès des chercheurs et étudiants-chercheurs.

De manière à rendre ce processus le plus simple possible et afin d'en tirer pour tous le plus grand profit, nous avons élaboré un court questionnaire qui vous permettra à la fois de satisfaire aux exigences du suivi et de nous faire part de vos commentaires et de vos besoins en matière d'éthique en cours de recherche. Ce questionnaire de suivi devra être rempli annuellement jusqu'à la fin du projet et pourra nous être retourné par courriel. La validité de l'approbation éthique est conditionnelle à ce suivi. Sur réception du dernier rapport de suivi en fin de projet, votre dossier sera clos.

Il est entendu que cela ne modifie en rien l'obligation pour le chercheur, tel qu'indiqué sur le certificat d'éthique, de signaler au CPER tout incident grave dès qu'il survient ou de lui faire part de tout changement anticipé au protocole de recherche.

Nous vous prions d'agréer, Madame, l'expression de nos sentiments les meilleurs,

Pierre Lapointe, Président
*Comité plurifacultaire d'éthique de la recherche (CPER)*
Université de Montréal

Université de Montréal

**Comité plurifacultaire d'éthique de la recherche**

# CERTIFICAT D'APPROBATION ÉTHIQUE

*Le Comité plurifacultaire d'éthique de la recherche (CPER), selon les procédures en vigueur, en vertu des documents qui lui ont été fournis, a examiné le projet de recherche suivant et conclu qu'il respecte les règles d'éthique énoncées dans la* Politique sur la recherche avec des êtres humains *de l'Université de Montréal.*

| Projet | |
|---|---|
| **Titre du projet** | **La formation sur la rétroaction corrective et les représentations et pratiques des futures enseignants de français langue étrangère en Algérie.** |
| Étudiante requérant | **Assma Taddarth**<br>Candidate au doctorat, Didactique - Faculté des Sciences de l'éducation<br>Université de Montréal |

| Financement | |
|---|---|
| Organisme | Le fond de recherche du Québec - Société et culture |
| Programme | Bourses de doctorat en recherche |
| Titre de l'octroi si différent | -- |
| Numéro d'octroi | |
| Chercheur principal | -- |
| No de compte | -- |

| Approbation reconnue | |
|---|---|
| Approbation émise par | non |
| Certificat: | s.o. |

**MODALITÉS D'APPLICATION**

Tout changement anticipé au protocole de recherche doit être communiqué au CPER qui en évaluera l'impact au chapitre de l'éthique.

Toute interruption prématurée du projet ou tout incident grave doit être immédiatement signalé au CPER.

Selon les règles universitaires en vigueur, un suivi annuel est minimalement exigé pour maintenir la validité de la présente approbation éthique, et ce, jusqu'à la fin du projet. Le questionnaire de suivi est disponible sur la page web du CPER.

Pierre Lapointe, Président
*Comité plurifacultaire d'éthique de la recherche*
Université de Montréal

**9 avril 2015**
Date de délivrance

**1er mai 2016**
Date de fin de validité

# APPENDIXE 3

# Questionnaire

# Questionnaire à l'intention des étudiants

**Présentation**

Les questions posées dans ce questionnaire se rapportent à vos perceptions (croyances) relatives à l'enseignement et à l'apprentissage du français langue étrangère.

Veuillez, s'il vous plaît, répondre à chaque question le plus honnêtement possible. Il n'y a pas de bonnes ou de mauvaises réponses à ces questions, mais les réponses doivent correspondre le plus possible à ce que vous pensez.

Toutes les données recueillies à l'aide de ce questionnaire sont anonymes. Les données demeureront strictement confidentielles et ne seront utilisées qu'aux fins de cette recherche.

Il est impératif de répondre à toutes les questions, car des réponses incomplètes causeraient l'élimination de votre participation.

Il est important d'éviter de choisir l'option 3 (position neutre) et de ne l'utiliser que lorsqu'elle reflète vraiment votre perception.

Avant de répondre au questionnaire, il faudra remplir le formulaire de renseignements personnels.

Sincères remerciements pour votre participation

Assma Taddarth

Département de didactique
Université de Montréal

## A)- **Première section :** Renseignements personnels

Veuillez S.V.P. répondre à toutes les questions.

1. **Nom**: _____
2. **Université**: _____
3. **Département:** _____
4. **Niveau d'étude:**_____
5. **Spécialité:** _____
6. **Sexe: Féminin** ____ **Masculin**____

## B)- **Deuxième section :** (Il est important de répondre à toutes les questions)

Veuillez indiquer votre degré d'accord ou de désaccord avec chacun des énoncés suivant en encerclant le chiffre qui correspond le mieux à votre choix.

(1 = FORTEMENT EN DÉSACCORD, 2 = EN DÉSACCORD, 3 = INDÉCIS, 4 = EN ACCORD

et 5 = FORTEMENT EN ACCORD).

تفضل بتوضيح مدى موافقتك أو عدم موافقتك علي العبارات الآتية وذلك
بوضع دائرة حول الرقم الذي يتوافق مع أفضل اختيار
(موافق بشدة = 5، موافق = 4، غير محدد = 3، لا أوافق = 2 ، لا أوافق بشدة =1)

**Exemple:**

| | |
|---|---|
| Le recours à la langue maternelle en classe de français langue étrangère.<br>استخدام اللغة الام في دروس اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5 |

Votre choix indique que vous êtes en désaccord avec l'énoncé.

هذا الاختيار يبين انك غير موافق علي هذه العبارة

| | |
|---|---|
| Reformuler correctement l'énoncé erroné de l'apprenant est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère.<br>إعادة أستاذ المادة للجملة بعد تصحيح ما بها من أخطاء دون الإشارة إلي أن التلميذ قد أخطا هي الطريقة الاكثر فاعلية لاكتساب اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Fournir des indices pour aider l'apprenant à corriger sa propre erreur à l'oral est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère.<br>اعطاء دلالات (اشارات) لمساعدة التلميذ على تصحيح خطأه الشفوي بنفسه هي طريقة (تقنية) تصحيح الاخطاء الاكثر فاعلية لاكتساب اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |

| | |
|---|---|
| La rétroaction corrective orale doit se limiter aux erreurs qui nuisent au sens.<br>تصحيح الاخطاء الشفوية يجب ان يقتصر على الاخطاء التي تفسد معنى الجملة | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Les capsules grammaticales qui ont lieu à la fin du cours sont le meilleur moment pour corriger les erreurs des apprenants.<br>الكبسولات النحوية التي تكون في آخر الدرس هي أفضل وقت لتصحيح أخطاء التلاميذ | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de vocabulaire à l'oral.<br>إعادة صياغة جملة التلميذ مع تصحيح ما بها من أخطاء دون الإشارة إلي أن التلميذ قد أخطا هي الطريقة الأكثر فاعلية لتصحيح أخطاء المفردات شفويا | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de grammaire à l'oral.<br>حث التلاميذ لتصحيح أخطاءهم بأنفسهم هو أفضل طريقة لتصحيح الاخطاء النحوية شفويا | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| La rétroaction corrective orale entrave les tentatives de communication de l'apprenant.<br>تصحيح الاخطاء شفويا يعيق محاولات المتعلم في التواصل اللغوي | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| La rétroaction corrective orale doit être fournie à la fin de la tâche d'interaction orale.<br>تصحيح الاخطاء الشفوية يجب ان يعطى في آخر النشاط التفاعلي الشفوي | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique pour les élèves débutants.<br>إعادة أستاذ المادة للجملة بعد تصحيح ما بها من أخطاء دون الإشارة إلي أن التلميذ قد أخطا هي طريقة مفيدة للتلاميذ المبتدئين | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| La rétroaction corrective orale doit avoir lieu à la fin du cours.<br>تصحيح الاخطاء الشفوية يجب ان يكون في آخر الدرس | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Inciter les apprenants à se corriger par eux-mêmes est bénéfique pour les élèves débutants.<br>حث التلاميذ لتصحيح أخطاءهم بأنفسهم مفيد للتلاميذ المبتدئين | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |

| | |
|---|---|
| La rétroaction corrective orale doit être fournie dès que l'erreur est commise.<br>تصحيح الاخطاء الشفوية يجب ان يعطى بمجرد حدوث الخطأ الشفوي | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| La rétroaction corrective orale favorise l'apprentissage du français langue étrangère.<br>تصحيح الاخطاء الشفوية يعزز (يسهل) تعلم اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| L'enseignant du français langue étrangère doit corriger toutes les erreurs orales de ses apprenants.<br>يجب على استاذ اللغة الفرنسية (لغة اجنبية) ان يصحح جميع الاخطاء الشفوية لتلاميذه | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de grammaire à l'oral.<br>إعادة أستاذ المادة للجملة بعد تصحيح ما بها من أخطاء دون الإشارة إلي أن التلميذ قد أخطا هي الطريقة الأكثر فاعلية لتصحيح الأخطاء النحوية شفويا | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Répéter l'erreur de l'apprenant pour qu'il la corrige lui-même est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère.<br>تكرار الاستاذ لخطأ التلميذ الشفوي لجعله يصححه بنفسه هو طريقة تصحيح الاخطاء الشفوية التي تساهم اكثر في تعلم اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| La rétroaction corrective orale affecte la motivation des apprenants.<br>تصحيح الاخطاء شفويا يؤثر على حافز (دافع) التعلم لدى التلاميذ | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| La rétroaction corrective orale doit être fournie durant les tâches d'interaction orale, dès que l'erreur est commise.<br>تصحيح الاخطاء الشفوية يجب ان يعطى خلال الانشطة التفاعلية الشفوية، بمجرد ارتكاب التلميذ للخطأ الشفوي | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Inciter les apprenants à se corriger par eux-mêmes est bénéfique pour les élèves de niveau avancé.<br>حث التلاميذ لتصحيح أخطاءهم بأنفسهم مفيد للتلاميذ ذوي المستوى المتقدم | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |

| | |
|---|---|
| La rétroaction corrective orale doit être évitée dans les classes de français langue étrangère.<br>يجب تجنب تصحيح الاخطاء الشفوية في حصص اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| L'enseignant de français langue étrangère doit corriger toutes les erreurs orales quelle que soit leur nature.<br>يجب على استاذ اللغة الفرنسية (لغة اجنبية) ان يصحح جميع الاخطاء الشفوية لتلاميذه مهما كانت طبيعتها | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Reformuler correctement l'énoncé erroné de l'apprenant est la meilleure technique pour corriger les erreurs de prononciation.<br>إعادة أستاذ المادة للجملة بعد تصحيح ما بها من أخطاء دون الإشارة إلي أن التلميذ قد أخطا هي الطريقة الأكثر فاعلية لتصحيح أخطاء النطق (اخطاء لفظية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| La rétroaction corrective orale est indispensable en français langue étrangère.<br>تصحيح الاخطاء الشفوية ضروري و لا غنى عنه في اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de prononciation.<br>حث التلاميذ لتصحيح أخطاءهم بانفسهم هو الطريقة الأكثر فاعلية لتصحيح أخطاء النطق (اخطاء لفظية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| L'enseignant de français langue étrangère doit limiter sa rétroaction orale aux erreurs récurrentes.<br>يجب على استاذ اللغة الفرنسية (لغة اجنبية) الاكتفاء بتصحيح الاخطاء المتكررة شفويا | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Inciter les apprenants à se corriger par eux-mêmes est la meilleure technique pour corriger les erreurs de vocabulaire à l'oral.<br>حث التلاميذ لتصحيح أخطاءهم بانفسهم هو الطريقة الأكثر فاعلية لتصحيح أخطاء المفردات شفويا | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Reformuler correctement l'énoncé erroné de l'apprenant tout en fournissant une explication de l'erreur est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère.<br>إعادة أستاذ المادة للجملة بعد تصحيح ما بها من أخطاء دون الإشارة إلي أن التلميذ قد أخطا مع اعطاء التلميذ شرح للخطأ هي الطريقة الأكثر فاعلية لتعلم اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |

| | |
|---|---|
| Inciter les apprenants à se corriger par eux-mêmes est la technique de rétroaction corrective qui contribue le plus à l'apprentissage du français langue étrangère.<br>حث التلاميذ لتصحيح أخطاءهم بأنفسهم هي طريقة تصحيح الاخطاء التي تساهم اكثر في تعلم اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| Reformuler correctement l'énoncé erroné de l'apprenant est bénéfique pour les élèves de niveau avancé.<br>إعادة أستاذ المادة للجملة بعد تصحيح ما بها من أخطاء دون الإشارة إلي أن التلميذ قد أخطا طريقة مفيدة للتلاميذ ذوي المستوى المتقدم | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |
| La rétroaction corrective orale augmente le niveau d'anxiété des apprenants de français langue étrangère.<br>تصحيح الاخطاء الشفوية يزيد من مستوى القلق لدى تلاميذ اللغة الفرنسية (لغة اجنبية) | 1 2 3 4 5<br>موافق بشدة=5، موافق=4، غير محدد=3، لا أوافق=2، لا أوافق بشدة=1 |

## C)- <u>Troisième section :</u>

Face à chaque erreur mentionnée ci-dessous, indiquez votre préférence EN ORDONNANT les différentes façons avec lesquelles l'enseignant peut corriger l'erreur de l'étudiant:

**1** pour votre premier choix, **2** pour le deuxième … etc.

بجانب كل خطأ مذكور ادناه، رتب الطرق المختلفة التي يمكن للأستاذ ان يصحح بها خطأ التلميذ :
1: لخيارك الأول، 2 :لخيارك الثاني ... الخ

<u>L'étudiant :</u> **Je mange** trois pommes hier.

<u>L'enseignant :</u>

| | **choix** |
|---|---|
| a) **J'ai mangé** trois pommes hier. (L'enseignant reprend la phrase de l'étudiant tout en corrigeant l'erreur) | |
| b) **Tu manges?** Trois pommes hier ? (L'enseignant répète l'erreur de l'étudiant tout en utilisant une intonation interrogative) | |
| c) Hier, tu**……..!** (L'enseignant s'arrête pour que l'étudiant complète la phrase). | |
| d) Hier c'est le passé. Corrige ton verbe. (L'enseignant fournit un indice pour que l'étudiant se corrige par lui-même) | |

L'étudiant : il a dit que **ti** es vraiment gentil.

L'enseignant :

| | choix |
|---|---|
| a) on dit **tu** et non pas **ti**. (L'enseignant corrige l'erreur de l'étudiant) | |
| b) Qui est gentil? Comment on prononce ce mot ? (L'enseignant aide l'étudiant à identifier l'erreur et le pousse à la corriger) | |
| c) **Ti?** (L'enseignant répète l'erreur de l'étudiant tout en utilisant une intonation interrogative) | |
| d) Il a dit quoi?……. (L'enseignant s'arrête pour que l'étudiant se corrige par lui-même) | |

L'étudiant : Je suis **OK**.

L'enseignant :

| | choix |
|---|---|
| a) **OK**, c'est un mot anglais, qu'est ce qu'on dit en français ? (L'enseignant fournit un indice pour que l'étudiant se corrige par lui-même) | |
| b) Je suis **d'accord**. (L'enseignant reprend la phrase de l'étudiant en corrigeant l'erreur) | |
| c) Je suis **OK?** (L'enseignant répète l'erreur de l'étudiant tout en utilisant une intonation interrogative) | |
| d) Je suis**…….** (L'enseignant s'arrête pour que l'étudiant complète la phrase) | |

**Votre collaboration est précieuse.**
**Merci d'avoir participé !**

# APPENDIXE 4

## Focus group coding schema

**Focus group coding schema**

| **Corrective feedback beliefs coding schema** |
|---|
| Importance of CF |
| Moment of CF |
| Frequency of CF |
| Recasts (technique of choice, error type, learner's proficiency level) |
| Prompts (technique of choice, error type, learner's proficiency level) |

**Types of change coding schema**

| **Types of change in CF beliefs** |
|---|
| Reversal |
| Elaboration |
| Consolidation |
| Pseudo change |
| No change |

# APPENDIXE 5

## Instances of coding and interrater reliability coding

# Pre-test post test coding for CF factors and types of change

| Hichem | pre | post | Type of change |
|---|---|---|---|
| **Importance CF** | Pour a condition fin cours permettre a l'apprennent de faire des erreurs c'est bien pour apprendre.<br>Corriger pendant le cours (au moment ou l'élève fait l'erreur) sa empêche la participation de l'élève pour la correction phonologique, je suis contre, sa complexe l'élève | c'est très important même;<br>c'est très important de corriger les erreurs des apprenants pour qu'il y a un apprentissage<br>Au début, j'ai crus que la RC empêche l'apprentissage, interrompe la communication….etc. mais après qu'on a vue ses techniques de RC et leurs efficacité **Elaboration**, j'ai changé carrément d'avis **Reversal**.<br><br>….., et que ses stratégies sont efficace pour une communication orale bien menée. | Au début, j'ai crus que la RC empêche l'apprentissage, interrompe la communication….etc. mais après qu'on a vue ses techniques de RC et leurs efficacité, j'ai changé carrément d'avis.<br>j'ai changé carrément d'avis par rapport à la RC avant on se concentrer sur le contenue et n'on pas la forme qui est très importante.<br><br>**Partie qui a causé le plus de changement :**<br>l'alibi : c'est une activité tres authentique qui met l'apprenant dans une situation authentique réelle, c'est motivant.<br><br>Module orale master :et on a fait ce module uniquement théorique.<br><br>ce que **ma laisser changer d'avis** et **ma prouvez que ses stratégies son efficace**, en voyant le cours (surtouts les résultats de cette recherche) et en comparant par rapport a l'activité qu'on a fait; on a |

| | | | |
|---|---|---|---|
| | | | trouvé qu'on doit corriger les erreurs immédiatement, et que ses stratégies sont efficace pour une communication orale bien menée. Donc, beaucoup plus la 3eme partie. |
| **Moment CF**<br>**Frequency CF** | je suis contre la rétroaction corrective au moment que l'élève fait l'erreur, sa empêche la participation de l'élève<br>Je préfère la correction après le cours ou il donne des exemples après que l'élève participe<br><br>en corrige l'essentiel de la phrase l'ordre des éléments, sujet, verbe, complément, les élèves font **beaucoupplus**<br>les erreurs de grammaire surtouts l'emploi du temps des verbes | la correction doit être immédiate<br>on a trouvé qu'on doit corriger les erreurs immédiatement **Reversal**,<br><br>on doit se baser sur les erreurs, grammaticales, lexicales et phonologiques **Elaboration**, se sont les erreurs **les plus fréquentes.**<br>**qui se répète** | moi aussi, j'ai changé d'avis carrément, surtouts lors de toute 1ere séance (vous rappelez) d'entrevue, j'étais contre la correction immédiate des erreurs. Mais après cette formation dans laquelle on a vue l'efficacité de corriger immédiatement les erreurs, j'ai carrément changé d'avis. |
| **Reformulation** | Débutant : fournir la forme correcte<br>en se basant en 1er lieu sur l'aspect grammatical et sémantique par ex l'ordre des mots dans la phrase ou la conjugaison des verbes, c'est très important pour les débutants.<br><br>Prononciation; pour débutant | pour les erreurs au niveau de la forme (grammaticale et lexicale) on utilise la **reformulation**,<br><br>Prononciation : soit la **reformulation**, soit **l'explicite**, parce que l'élève a déjà prononcer ce mot mal, on ne peut pas **l'inciter** à corriger sa prononciation. Moi, je préfère **l'explicite** **recasts-Elaboration**<br><br>et pour les autres, je leurs **donne la forme correcte**.<br><br>Débutant : **la reformulation** ou **l'explicite** car il n'a pas des **pré-requis**, il ne peut pas **s'auto-corrigé** **recasts-Elaboration.** | |

| | | | |
|---|---|---|---|
| | fournir la méthode correcte, les bases du français, fournir les règles de bases pour qu'il a une base forte<br><br>avancé : un élève avancé il déjà les règles de base, comme la forme de la phrase. j'insiste surtouts sur le sens (sémantique), l'enchainement des phrases. il est censé fournir des textesici je préfère la correction directe | | |
| **Incitation** | **Pousser**Correction indirecte (pousser). j'ai lut un bon exemple dans ton questionnaire, l'apprenant dit: je suis malade hier, l'enseignant va lui dire; répète s'il te plait; hier... c-a-d il commence par l'erreur, il le corrige indirectement, puis l'élève va détecter automatiquement son erreur. Implicitement<br>lui pousser a s'auto corriger<br><br>automatiquement, je vais détecter le type d'erreur, grammaticale conjugaison ou..., et la structure de phrase, tout de suit je vais réfléchir a un exercice ou un exemple qui explique le cours de conjugaison, on utilise hier aujourhduit demain, et chaque mot<br><br>par exemple: l'apprenant dit; hier j'ai utilisé le bis (bus), je l'encourage en disant très bien merci. j'écrit cette exemple sur le tableau et je dit a mes apprenants; voici, c'est un u, pouvez vous me donner des exemples qui contiens cette lettre u, il vont donner des mots, j'écoute chaque apprenant, lutte, bus etc...et si il prononce mal, ici je lui demande de prononcer correctement. par ce que; celui qui a donner l'exemple | je préfère laisser l'élève **s'auto corriger** **prompts-Consolidation** lui-même, c'est mieux que fournir dés le début la forme correcte.<br><br>mon enseignant me donne un livre hier : je **l'incite** a ce corriger lui-même, je lui **donne un indice** : hier c'est le passé on doit corriger le verbe au passé et on lui donne une chance pour répéter sa phrase correctement commencent par hier….., il va corriger son erreur.<br><br>et pour les erreurs phonologiques on utilise **l'incitation** **incit-Consolidation**.<br>Grammaticale :je préfère<br><br>**fournir un indice métalinguistique**, s'il trouve le mot exact, sinon, je lui donne le mot exact.<br><br>Vocab : on peut **inciter** ses camarades de lui aider à trouver le mot en lui donnant des synonymes, sa va être bénéfique pour tous le monde.<br><br>pour la grammaire, c'est **l'incitation** ou bien **l'explicite** tu dois dire sa<br><br>pour les avancés je les **incite** a | |

| | | | |
|---|---|---|---|
| | naturellement librement, je ne peu pas le corriger directement. | **s'auto corrigé** lui même,<br><br>Pour un avancé, ont doit **l'inciter** **prompts-elaboration** | |

# Interrater reliability coding

| Hichem | pre | post | Changement - partie de la formation qui a causé le changement | |
|---|---|---|---|---|
| **Importance CF** | Pour a condition fin cours permettre a l'apprennent de faire des erreurs c'est bien pour apprendre. Corriger pendant le cours (au moment ou l'élève fait l'erreur) sa empêche la participation de l'élève pour la correction phonologique, je suis contre, sa complexe l'élève | c'est très important même; c'est très important de corriger les erreurs des apprenants pour qu'il y a un apprentissage Au début, j'ai crus que la RC empêche l'apprentissage, interrompe la communication…. etc. mais après qu'on a vue ses techniques de RC et leurs efficacité, j'ai changé carrément d'avis.<br><br>….., et que ses stratégies sont efficace pour une communication orale bien menée. | Au début, j'ai crus que la RC empêche l'apprentissage, interrompe la communication….etc. mais après qu'on a vue ses techniques de RC et leurs efficacité, j'ai changé carrément d'avis.<br>j'ai changé carrément d'avis par rapport à la RC avant on se concentrer sur le contenue et n'on pas la forme qui est très importante.<br><br>**Partie qui a causé le plus de changement :** l'alibi : c'est une activité tres authentique qui met l'apprenant dans une situation authentique réelle, c'est motivant.<br><br>Module orale master :et on a fait ce module uniquement théorique.<br><br>ce que **ma laisser changer d'avis** et **ma prouvez que ses stratégies son efficace**, en voyant le cours (surtouts les résultats de cette recherche) et en comparant par rapport a l'activité qu'on a fait; on a trouvé qu'on doit corriger les erreurs immédiatement, et que ses stratégies sont efficace pour une communication orale bien menée. Donc, beaucoup plus la 3eme partie. | **Reversal :** |
| **Moment CF** | je suis contre la rétroaction corrective au moment que l'élève fait l'erreur, sa empêche la participation de l'élève<br>Je préfère la correction après | la correction doit être immédiate on a trouvé qu'on doit corriger les erreurs immédiatement, | moi aussi, j'ai changé d'avis carrément, surtouts lors de toute 1ere séance (vous rappelez) d'entrevue, j'étais contre la correction immédiate des erreurs. Mais après cette formation dans laquelle on a vue l'efficacité de corriger immédiatement les erreurs, j'ai carrément changé d'avis. | Reversal : |

| | | | | |
|---|---|---|---|---|
| | le cours ou il donne des exemples après que l'élève participe | | | |
| **Frequency CF** | en corrige l'essentiel de la phrase l'ordre des éléments, sujet, verbe, complément, les élèves font **beaucoup plus** les erreurs de grammaire surtouts l'emploi du temps des verbes | on doit se baser sur les erreurs, grammaticales, lexicales et phonologiques, se sont les erreurs **les plus fréquentes. qui se répète** | | **elaboration** |
| **Technique of choice (pousser vs fournir)** | **Pousser** Correction indirecte (pousser). j'ai lut un bon exemple dans ton questionnaire, l'apprenant dit: je suis malade hier, l'enseignant va lui dire; répète s'il te plait; hier... c-a-d il commence par l'erreur, il le corrige indirectement, puis l'élève va détecter automatiquement son erreur. Implicitement lui pousser a s'auto corriger | je préfère laisser l'élève **s'auto corriger** lui-même, c'est mieux que fournir dés le début la forme correcte. | | **Consolidation** |
| **Technique vs error type** | automatiquement, je vais détecter le type d'erreur, grammaticale conjugaison | mon enseignant me donne un livre hier : je **l'incite**a ce corriger lui-même, je lui **donne un indice** : | ont ne savait même pas que pour chaque type d'erreur il y a une technique de correction. | Elaboration |

| | | | | |
|---|---|---|---|---|
| | ou..., et la structure de phrase, tout de suit je vais réfléchir a un exercice ou un exemple qui explique le cours de conjugaison, on utilise hier aujourhduit demain, et chaque mot<br><br>par exemple: l'apprenant dit; hier j'ai utilisé le bis (bus), je l'encourage en disant très bien merci. j'écrit cette exemple sur le tableau et je dita mes apprenants; voici, c'est un u, pouvez vous me donner des exemples qui contiens cette lettre u, il vont donner des mots, j'écoute chaque apprenant, lutte, bus etc...et si il prononce mal, ici je lui demande de prononcer correctement. par ce que; celui qui a donner l'exemple naturellement librement, je ne peu pas le corriger directement. | hier c'est le passé on doit corriger le verbe au passé et on lui donne une chance pour répéter sa phrase correctement commencent par hier….., il va corriger son erreur. pour les erreurs au niveau de la forme (grammaticale et lexicale) on utilise la **reformulation**, et pour les erreurs phonologiques on utilise **l'incitatio**n. **C'est très efficace; chaque erreur a une stratégie efficace de correction**, c'est ca ce qu'on a vu dans la formation hun? Prononciation : soit la **reformulation**, soit **l'explicite**, parce que l'élève a déjà prononcer ce mot mal, on ne peut pas **l'inciter** à corriger sa prononciation. Moi, je préfère **l'explicite** Grammaticale :je préfère **fournir un indice métalinguistique**, s'il trouve le mot exact, sinon, je lui donne le mot exact. Vocab : on peut **inciter** ses camarades de lui aider à trouver le mot en lui donnant des synonymes, sa va être bénéfique pour tous le monde. | | |

| | | | | |
|---|---|---|---|---|
| | | pour la grammaire, c'est **l'incitation** ou bien **l'explicite** tu dois dire sa | | |
| **Technique vs learner's profeciency level** | Débutant : fournir la forme correcteen se basant en 1er lieu sur l'aspect grammatical et sémantique par ex l'ordre des mots dans la phrase ou la conjugaison des verbes, c'est très important pour les débutants. mais pour la prononciation, sa vient avec le temps. sa dépend de chaque niveau pour débutant fournir la méthode correcte, les bases du français, fournir les règles de bases pour qu'il a une base forte avancé : un élève avancé il déjà les règles de base, comme la forme de la phrase. j'insiste surtouts sur le sens (sémantique), l'enchainement des phrases. il est censé fournir des textes ici je préfère la correction directe | pour chaque niveau d'apprentissage il y a une technique à fournir pour les avancés je les **incite** as**'auto corrigé**lui même, et pour les autres, je leurs **donne la forme correcte**.<br><br>Débutant : **la reformulation** ou **l'explicite** car il n'a pas des **pré-requis**, il ne peut pas **s'auto-corrigé**.<br><br>Pour un avancé, ont doit **l'inciter** | **Processawareness realisatio additionlinking up didegreament**<br><br>**Productconsolidationelaboration reversal no change**<br><br>**Reversal elaborationconsolidation** | **No change for beginners (debutants)**<br><br>**Reversal for advanced** |