

# Learner Personality and Response to Oral Corrective Feedback in an English for Academic Purposes Context

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*Corrective feedback (CF) is an important part of effective instruction, and a rich body of research has investigated how best to implement various CF strategies and approaches. Researchers have increasingly become aware of individual differences that have an impact on the effect and effectiveness of CF. One area of individual difference that has been shown to influence learning outcomes is personality; yet, findings have been inconsistent, and the influence of learners' personality traits on oral CF effectiveness has largely been neglected. This study aimed to fill this gap by investigating how learners with different personalities experience and benefit from different types of oral CF. Situated in an intact class of adult language-learners in an academic context, data collection included a Five Factor Model (FFM) personality test, video and audio recordings of classroom activities, and individual interviews/stimulated-recall sessions. The findings of this study suggest that personality traits do appear to play a role in how students experience CF. Relationships between global FFM personality traits and CF response emerged: competitiveness and perfectionism characteristics appeared influential, and a possible interaction between agreeableness and neuroticism is discussed. Pedagogical implications are suggested.*

*La rétroaction corrective est une partie importante de l'instruction efficace, et un important corpus de recherche s'est penché sur la meilleure façon de mettre en place des stratégies et des approches de rétroaction corrective. Les chercheurs sont devenus de plus en plus conscients des différences individuelles qui ont un impact sur l'effet et sur l'efficacité de la rétroaction corrective. On a montré qu'une aire de différence individuelle, la personnalité, influence les résultats d'apprentissage; cependant, les résultats ne sont pas uniformes, et l'influence des traits de personnalité des apprenants sur l'efficacité de la rétroaction corrective orale a été pour la plupart négligée. Le but de la présente étude était de combler cette lacune en étudiant comment des apprenants de différente personnalité vivent et bénéficient de différents types de rétroactions correctives orales. Située dans une classe intacte d'apprenants adultes de langues dans un contexte universitaire, la collecte de données comprenait un test de personnalité se basant sur le modèle en cinq facteurs (MCF), des enregistrements audio et vidéo des activités de classe, ainsi que des séances d'entrevues individuelles/de rappels stimulés. Les résultats de cette étude suggèrent que les traits de personnalité semblent bien jouer un rôle dans la façon dont les étudiants perçoivent la rétroaction corrective. Les relations entre les traits*

*de personnalité généraux MCF et la réaction à la rétroaction corrective ont montré que : les caractéristiques de compétitivité et de perfectionnisme semblaient jouer un rôle marquant et on discute d'une interaction possible entre l'agréabilité et le neuroticisme. On suggère des implications pédagogiques.*

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Keywords: individual differences, corrective feedback, classroom research, personality

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Corrective feedback (CF) has been shown to be an important part of effective instruction (Li, 2010; Lyster & Saito, 2010; Lyster et al., 2013; Sheen, 2011) and empirical evidence suggests that CF is beneficial for second language acquisition (SLA), particularly for the acquisition of explicit knowledge (Ellis, 2002, 2007; Ellis, 2005; Sheen, 2011; Spada & Tomita, 2010). More recent research has turned to examining factors that influence its effectiveness, in particular, the mediating role that individual differences (IDs) may play in CF effectiveness (e.g., Banaruee et al., 2017; Sheen, 2007, 2011).

IDs can be defined as “cognitive and psychological variables affecting how learners learn” (Sheen, 2007, p. 304). They are personal characteristics, which significantly influence student thinking and behaviour and are emerging as important moderating variables in the process of SLA (Dörnyei, 2006; Sheen, 2011). Historically, instructed SLA research has focused on groups and not individuals, and those areas of SLA that deal with universal processes have generated much more research and interest than the topic of IDs in language learning (Dewaele, 2005). There has, however, been a consistent call for research on IDs and CF (Lyster & Saito, 2010; Russell & Spada, 2006; Sheen, 2008, 2007, 2010, 2011; Spada 2011), and research on the impact of IDs has examined how factors such as language aptitude (Havranek & Cesnik, 2001; Sheen, 2007, 2011; Trofimovich et al., 2007), anxiety (DeKeyser, 1993; Havranek & Cesnik, 2001; Sheen 2011, 2008), age (Sheen, 2007), previous knowledge of the language (Trofimovich et al., 2007), grammatical sensitivity (DeKeyser, 1993), motivation (DeKeyser, 1993; Uzum, 2011), and working memory (Mackey et al., 2002) mediate the effects of the different aspects of second language (L2) instruction.

## **Personality as an Individual Difference**

However, one important individual variable that has been largely neglected is personality (Dörnyei & Skehan, 2003; MacIntyre & Charos, 1996; Sharp, 2008). The American Psychological Association (2020) defines personality as “individual differences in characteristic patterns of thinking, feeling and behaving,” and McCrae and John (1992, p. 175) conceptualize personality as IDs in “enduring emotional, interpersonal, experiential, attitudinal, and motivational styles.” The current standard to measure personality is the Five-

Factor Model (FFM) of personality, a widely used taxonomy of personality traits. Table 1 outlines the traits associated with the personality dimensions of the FFM.

Table 1  
The Big Five Personality Dimensions

Trait	Characteristics
Extroversion	Sociable, assertive, talkative, and energetic
Neuroticism	Poor emotional adjustment and stability, pessimistic, anxious, moody, tense
Conscientiousness	Organized, responsible, and motivated in goal-directed behaviour
Agreeableness	Trusting, compliant, compassionate, empathetic, cooperative, a pro-social orientation towards others with no antagonism
Openness to experience	Seeking experiences for their own sake, tolerant of the unfamiliar, original, curious

Personality plays a role in classroom pedagogy and teacher decision-making as teachers place a great deal of emphasis on the role of personality in learning. Teachers have an “intuitive” belief that personality has a substantial importance in learning (Sharp, 2008, p. 21). Wakamoto (2000) discusses how teachers make pedagogic assumptions about students’ potential language learning success based on their personality, believing, for example, that extroverts are more successful language learners. In order to support or refute assumptions like these, more research is needed on the impact of personality on language learning in general, and CF in particular.

Research examining the relationship between personality, academic performance, and language learning, has indicated a number of general trends. The most frequently studied personality traits in relation to language learning are introversion/extroversion and neuroticism, particularly the impact of anxiety (Ehrman & Oxford, 1990, 1995; Fazeli, 2011a, 2012; MacIntyre & Charos, 1996; Robinson et al., 1994). Research findings on extroversion are mixed and complex (Dewaele, 2005; Dörnyei, 2006; Ehrman & Oxford, 1990). Introversion appears to be a more desirable trait for high academic achievement, and learning in general, as extroversion correlates negatively with success in higher education and with performance on nearly all subject knowledge scales (Ackerman, 1999; Diseth, 2003; Liadra et al., 2007). In language learning, it appears that extroversion plays a positive role for oral language learning but not for written language learning (Dewaele, 2005; Dörnyei, 2006; Robinson et al., 1994). Extroversion is widely considered advantageous in language learning (Fazeli, 2012; Ehrman & Oxford, 1990)

since extroverted students interact readily with others and appear to learn an L2 more successfully; meanwhile, introversion is associated with an unwillingness to communicate (MacIntyre & Charos, 1996). Extroverts also tend to be more fluent than introverts in their first and additional languages (Dörnyei, 2006), particularly in interpersonally stressful environments; extroverts also use colloquial words freely whereas introverts tend to avoid them (Dewaele, 2004). In fact, while this trait has been found to serve as a good predictor of fluency in oral L2 production, no differences in accuracy have been found between extroversion and introversion (Dewaele, 2005). Fazeli (2012), however, discusses other studies that show a positive relationship between introversion and L2 learning. This positive relationship between introversion and L2 learning (Carrell et al., 1996), and the finding by Ehrman and Oxford (1990) that extroverts and introverts use different learning strategies, both seem to suggest that depending on the context and method of instruction (e.g., formal vs. communicative), extroversion and introversion are both desirable for language learning.

Findings on the impact of neuroticism on learning have also been mixed. Some studies indicate that neuroticism negatively correlates with general language learning aptitude because stress negatively affects learning (Robinson et al., 1994) and reduces strategy use (Fazeli, 2011a). Liadra et al. (2007) found that neuroticism correlated negatively with the grade point average, while Chamorro-Premuzic et al. (2007) found that neuroticism was associated with surface, superficial learning. However, Diseth (2003) suggested that neuroticism may have both a positive and a negative impact on academic achievement, citing evidence that stable extroverts have the highest failure rates on examinations, whereas neurotic introverts have the lowest.

Findings on the trait of agreeableness are limited and inconclusive. It has been shown to correlate positively with academic achievement measures such as grade point average (Liadra et al., 2007), though this relationship weakened after Grade 6. High agreeableness was also found to be positively associated with a deep learning approach (Chamorro-Premuzic et al., 2007), which focuses on intrinsic motivation and a desire “to understand the material” (Diseth, 2003, p. 145). Yet Diseth (2003) also discovered a negative correlation between agreeableness and achievement (as measured by examination scores), and no significant relationship between agreeableness and the deep learning approach.

Finally, the other global personality traits, openness to experience and conscientiousness, also have not been widely studied. Liadra et al. (2007) found a significant positive correlation between both openness to experience and conscientiousness and grade point average. Chamorro-Premuzic et al. (2007) found that more open students tended to use deep learning motives and strategies, while Fazeli (2011b) found a significant positive relationship between conscientiousness and each of the strategies identified in the

Strategy Inventory for Language Learning (SILL), a self-report questionnaire of strategy use that classifies language learning strategies into categories: memory, cognitive, compensation, metacognitive, affective, and social. These correlations were positive but low for most categories of strategies, except for memory and metacognitive strategies, for which these correlations were medium in strength. Nonetheless, these findings are very limited, so even tentative claims of general tendencies cannot be made.

Thus, although personality traits have been shown to influence learning outcomes, existing research in this area presents inconsistent findings (Dörnyei & Skehan, 2003; Sharp, 2008) and the influence of learners' personality traits on oral CF effectiveness is virtually neglected. This paper reports on a study that investigated how learners with different personalities, operationalized as scores on the five dimensions of Goldberg's Big Five-Factor inventory, experience and benefit from different types of oral CF in an English for academic purposes (EAP) classroom context. The following questions guided the investigation:

- Q1: What is the relationship between personality traits, as measured by Goldberg's Big Five-Factor inventory, and effectiveness of oral corrective feedback for learners in an English for academic purposes classroom?
- Q2: How do learners with different personality traits respond to and experience oral corrective feedback?

## Methods

**Context.** The study took place in Canada, in an EAP class offered as part of a noncredit university preparation program. Upon completion of the course, students are exempted from taking an IELTS or TOEFL exam for admission to a degree program.

The program has nine levels, and students must achieve 65% or higher in each skill to move to the next level. The participating class was an advanced-level class. The program uses a communicative and integrative skills approach (see Hyland & Shaw, 2016), and the curriculum provides weekly objectives and suggested activities, but teachers are allowed to use their own materials and activities to meet the objectives for that level. Textbooks for reading and listening skills are provided.

The participating class was eight weeks long, with 20 hours of instruction per week. Data collection for the study began during the second week of the program. Typical tasks in this class were listening and reading comprehension exercises, grammar instruction, group work and individual work, presentations, class discussions, research skills development, and essay writing. Students also completed assignments and tests to evaluate their performance. The program encourages teachers to provide written CF while leaving oral CF to the teachers' discretion.

Informal observation before the study showed that the teacher in this particular class did not provide oral CF on grammar as part of her instruction. In discussion, she indicated that she was very familiar with the different types of feedback to be used in the study and well-versed in grammar because she regularly provided written grammar CF. However, at higher proficiency levels in this program there is a larger focus on fluency; grammar is not taught as explicitly as it is at lower levels. As such, there is less oral CF provided at these levels. At higher levels, teachers also teach revision and editing skills, promoting self- and peer correction.

**Participants.** Nine students (six females and three males) out of a class of 13 and their teacher agreed to participate in the study. All student-participants came from China or Saudi Arabia, and reported Mandarin ( $n = 5$ ) and Arabic ( $n = 4$ ) as their first language (L1). They ranged in age (18–45 years), with the majority ( $n = 6$ ) being between 18 and 20 years old. They had been studying English in an instructed context for between seven and 15 years, and had started learning English at different ages, ranging from the age of five to 12. At the time of the study, they had all been in Canada for no longer than nine months.

The teacher was an experienced instructor with 10 years of teaching experience and a Master in Applied Linguistics. Her CF approach was that she provided copious written feedback with a focus on grammar, and in terms of oral CF, she tended to provide pronunciation feedback on students' presentations, group discussions, and debates.

**Data collection.** The in-class portion of the study took place over a four-week period. Quantitative data were derived from (a) the personality test, (b) biographical survey, (c) pretest and posttest measures, and (d) audio/video recordings of classroom activities. In order to investigate the relationship between personality traits and the impact of CF on learning in greater depth, qualitative data were collected through semi-structured interviews and stimulated recall (SR) sessions.

Participants completed tasks in different phases of the study; all nine completed the personality test; eight completed both the pre- and posttests for the quantitative phase of the study, one participant chose not to participate in the interview and SR, and another was absent from class for the posttest; as such, for this participant, the study drew on only qualitative data.

**Goldberg's Big Five-Factor inventory.** To measure personality, an existing and validated instrument, Goldberg's Big Five-Factor inventory of 50 items, was used. It is considered a comparable, shorter alternative to the Costa and McCrae's NEO Personality Inventory (Goldberg, 1992), which is the standard to which other personality constructs are compared for construct validity. The FFM of personality is widely used and considered robust, with

a growing consensus in conceptualization of personality using this model (Diseth, 2003; Dörnyei, 2006; MacIntyre & Charos, 1996). The participants were presented with a total of 50 items (such as “I get stressed out easily,” “I am always prepared,” and “I am not interested in other people’s problems”) and were asked to indicate the extent to which they agreed or disagreed with each statement. A five-point scale, from complete agreement to complete disagreement, was used.

**Biographical data survey.** Biographical data were collected to gather profile information about the participants and build a picture of their background and language learning experiences. This included demographic information about the participants’ age, gender, country of birth and first language, as well as their English-learning history and date of arrival in Canada.

**Classroom video and audio recording.** A total of 10 hours and 50 minutes of in-class instruction over a four-week period was video-recorded with a camera placed inconspicuously in a corner of the class, in an attempt to reduce distraction to the participants. Two audio recorders were placed in other parts of the room to capture speech during class. The audio/video recordings were used to identify specific instances of CF provided to the participants.

**Oral production task.** The spontaneous oral production tasks and speaking tasks that were used as part of CF instruction were selected through researcher and teacher collaboration so that the tasks could be authentic to the classroom and easily integrated into usual class activities. The tasks focused on topics such as describing a past situation when making an irrational purchase, describing a culture shock experience after arriving in Canada, and describing positive and negative past experiences with technology (Appendix A).

The spontaneous oral production tasks elicited both open-ended and unconstrained responses, and were intended to tap into participants’ spontaneous, implicit knowledge of the language. The same type of task was used for both the pretest and posttest in an attempt to ensure that the task measured use of the target feature under similar conditions.

**Semi-structured interview and stimulated recall session.** The interviews took place over a two-week period, after the in-class four-week intervention phase of the study ended. The interviews were conducted by the researcher, one-on-one, in a private setting, and lasted about one hour. During the semi-structured interview, the participants were asked questions designed to explore their personalities, e.g., “How would you describe your personality?”; “What personality traits in your opinion help you learn?”; “Which traits in your opinion make it difficult for you to learn or are troublesome to your learning?” Other questions probed their general experience of error correction (e.g., “How do you feel when your teacher corrects you?”). This was then

followed by a SR session, during which participants were shown segments of the classroom video when they were provided with CF, and each participant was asked to comment on his or her thoughts and emotions experienced at those moments. This procedure was explained to the participants without reference to specific expectations that might influence their response (Egi, 2004; Gass & Mackey, 2017). The participants were prompted with questions such as: “Can you tell me what was going through your mind here?”; “What is going on here?”; “What happened here?”; “What did you feel when the teacher did this?”

## **Procedure**

At the start of the study, participants completed the biographical survey and an adapted version of the FFM personality test (50 questions), resulting in scores on each of the five dimensions of personality examined in this study. During the study, participants completed a total of 10 spontaneous speaking activities. For each activity, they were asked to speak to the entire class about a given topic spontaneously and without preparation for approximately two to three minutes.

The first two speaking activities, completed at the start of week one, served as the oral production task pretests, and the last two activities, completed in week four, served as the oral production task posttests. Participants were asked to complete the pretest and posttest tasks twice over two consecutive days in order to increase the speech sample and reduce situational factors that might influence a participant’s performance on a particular day. These tasks were video recorded and transcribed for analysis. The order in which individual participants completed the tests was counterbalanced to avoid unequal preparation time as they awaited their turn.

In the qualitative phase of the study, the researcher conducted individual semi-structured interviews and SR sessions, approximately one-hour in total, to follow up on the quantitative results. The interviews and SR were also audio recorded and transcribed.

## **The Target Feature**

The goal was to select a grammatical feature that the participants were familiar with but had not yet mastered, was appropriate for their proficiency level, and was frequently used during conversation in class. In consultation with the teacher, the past tense was selected. Both the predictable and rule-based past tense “-ed” and the more memorization-reliant irregular forms were used (see Yang & Lyster, 2010). This added ecological validity because at this level of language proficiency, the students would have learned both, and yet would continue to require CF on both types. The past tense “-ed” has been

used in other CF research (Ellis, 2007; Ellis et al., 2006; Mackey, 2006) and was deemed appropriate to the students' proficiency level here.

## **Instructional Treatment**

For the purpose of this study, oral CF was operationalized as a teacher's move that alerts the student to a grammatical error in his/her statement. In order to ascertain how different personalities respond to CF, it was decided to investigate a range of CF techniques, both on the implicit and the explicit ends of the CF continuum, to get a fuller understanding of students' reactions to CF. As such, the teacher was asked to use three different strategies when providing CF: explicit correction, in which the teacher identifies the source and nature of the error and provides the correct form; partial recasts, in which the teacher reformulates the student's statement correctly, in part or entirely, and with emphasis such as rising intonation or word stress; or an "elicit completion" (see Lyster & Ranta, 1997) type of prompt, in which the teacher alerts the student to an error with intonation or a question, prompting them to complete the statement correctly themselves. Partial recasts were selected as a way of introducing salience that can be considered more explicit than other recasts that do not include emphasis, but not to the degree of CF that is intended to be explicit (e.g., Nabei, 2012; Nassaji, 2009; Sheen, 2004; Yang & Lyster, 2010). To support the authenticity of the classroom discourse and the ecological validity of the study as classroom-based research, the decision of how frequently to use each of the three types, and when, was left up to the teacher.

Over the course of four weeks, participants received partial recasts, elicit completion type of prompts and explicit error correction, interchangeably, on past tense errors during the spontaneous speaking activities. The CF was distributed over six days, 25 to 40 minutes at a time, for a total of three hours. During this time, the teacher was asked to focus her CF on the past tense grammatical form alone, and avoid correcting other grammar. There was no oral CF provided outside of these three hours. The length of the treatment was shorter than anticipated (medium rather than long) due to shorter than expected speaking turns by some students and, overall, fewer participants.

## **Analysis**

To determine a trait profile for each participant, their responses on the personality test were computed as a total score and assigned a percentile rank by comparing it against a standardization sample available for the Big-Five Factor Markers from the International Personality Item Pool developed by Goldberg (1992). The recordings of the pretest and posttest oral production tasks were transcribed verbatim, and all instances of CF provided by the instructor and past tense use by the participants during the spontaneous

speaking tasks were identified. The number and type of CF was calculated. The instances of past tense use were coded to determine accuracy of use before and after the CF treatment. Coding followed a content analysis approach, with a focus on form and meaning embedded in discourse. The discourse was analysed to determine obligatory contexts (OC) (see Valeo, 2010; Gass, 2013; Pica, 1983) reflecting a meaning-based interpretation: if participants were able to describe an event meaningfully without using the past tense, it was not considered an OC that required the past tense. Analysis considered how the target feature was embedded in language used in context. If the sentence was not embedded in immediate discourse that made this consideration possible, then it was considered incorrect. For example, if the students were expected to use the past tense, the "it's horrible day for me" utterance was considered incorrect because the student did not use the past tense; it was also considered incorrect if the past tense was used when it should not have been, as in "it's better for them to see the whole the outside world and ... to knew more things."

When coding, utterances were rated on a scale from 0 to 2, with 0 indicating failure to communicate past tense. It occurred when participants did not attempt to use the past tense when OC required them to do so. A score of 1 was assigned when the participant recognized that past tense was necessary for meaning and made an attempt to use it, but did so incorrectly. A score of 2 indicated the correct use of past tense, both in meaning and form. Errors that were not related to the use of past tense, such as errors in word choice and subject-verb agreement, were discounted. If the participant self-corrected, this was counted as correct. To assess inter-rater reliability, 10% of the data were coded by a colleague who was provided with a written description of the coding approach; with discussion, the final coding agreement reached 94.5%. In order to calculate change in accuracy of past tense use, accuracy at pretest was subtracted from accuracy at the posttest. Correlations between the global personality traits and the pretest and posttest learning outcome scores and their statistical significance were calculated, and linear regression analysis was conducted.

Interview and SR data were partially transcribed for relevant content, and coded to identify emergent themes. Using a constant comparison method, coding categories were grounded in the data (see Strauss & Corbin, 1998).

## Results

The first research question *What is the relationship between personality traits, as measured by Goldberg's Big Five-Factor inventory, and effectiveness of oral corrective feedback for learners in an EAP classroom?* was answered using the data from the personality test and pre/posttest oral production tasks. These two measures were used to establish a relationship between these two variables. The results of the personality test are presented in Table 2, which

shows all participants' percentile scores on the five global personality traits: extroversion, neuroticism, agreeableness, conscientiousness, and openness to experience.

Table 2  
Participants' Percentile Rank Scores (1st to 99th) On The Big Five Traits and Class Averages

	Extroversion	Neuroticism	Conscientiousness	Agreeableness	Openness to Experience
Rana	29	26	67	35	6
Rose	90	52	57	71	70
Hope	78	78	57	56	40
Sarah	50	43	1	76	18
Tim	33	48	26	62	28
Lucy	45	22	52	35	34
Nora	81	70	12	51	59
Lance	92	22	36	17	8
John	70	48	57	30	28
Average	63.11	45.44	40.56	48.11	32.33

Descriptive statistics of the personality scores revealed that the students in this class had relatively high extroversion scores, with a mean score of 63, and slightly below average neuroticism and agreeableness scores, 45 and 48 respectively. Their conscientiousness mean score was ten percentiles lower than average, at the 40th percentile, and openness to experience mean score was even lower, at the 32nd percentile.

Analysis of the recorded classroom instruction showed that, in line with the researcher's request, the instructor provided CF on grammar only during the spontaneous speaking activities, and that a total of 86 recasts, 31 prompts, and 13 explicit corrections were provided over the total of three hours. The participants' scores on the pre- and posttests are displayed in Table 3.

Table 3  
Summary of the Participants' Pre- and Posttest Scores (maximum score: 1.0)

Student	Pretest	Posttest	Score Difference	Difference as %
Lucy	0.538	0.875	0.337	63%
Sarah	0.600	0.658	0.058	10%
Tim	0.571	0.800	0.229	40%
Rana	0.786	0.600	-0.186	-24%
Rose	0.500	0.619	0.119	24%
Nora	0.766	0.910	0.144	19%
John	0.250	0.526	0.276	110%
Lance	0.571	0.477	-0.094	-16%

The results show that all but two participants improved in their use of the past tense. John, Lucy, and Tim showed the biggest pretest to posttest improvement whereas Rana and Lance declined in past tense accuracy.

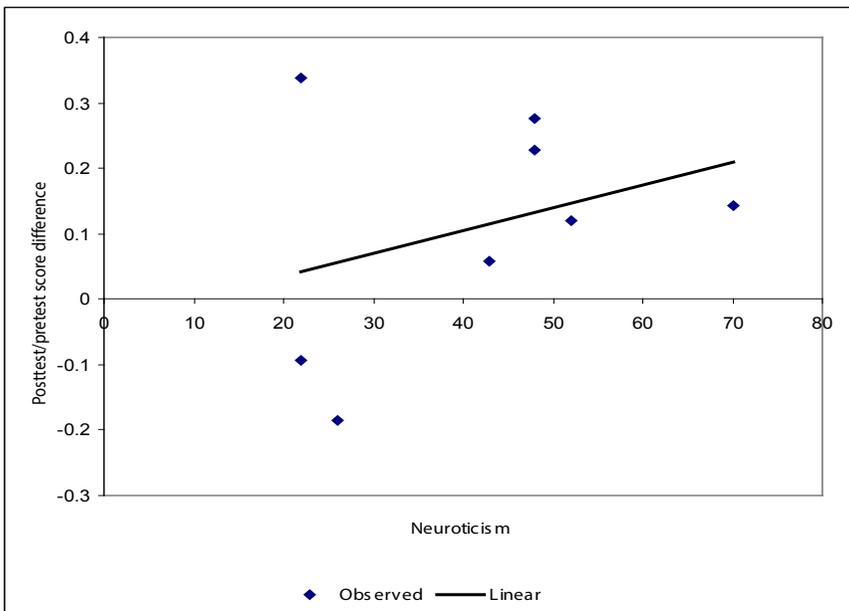
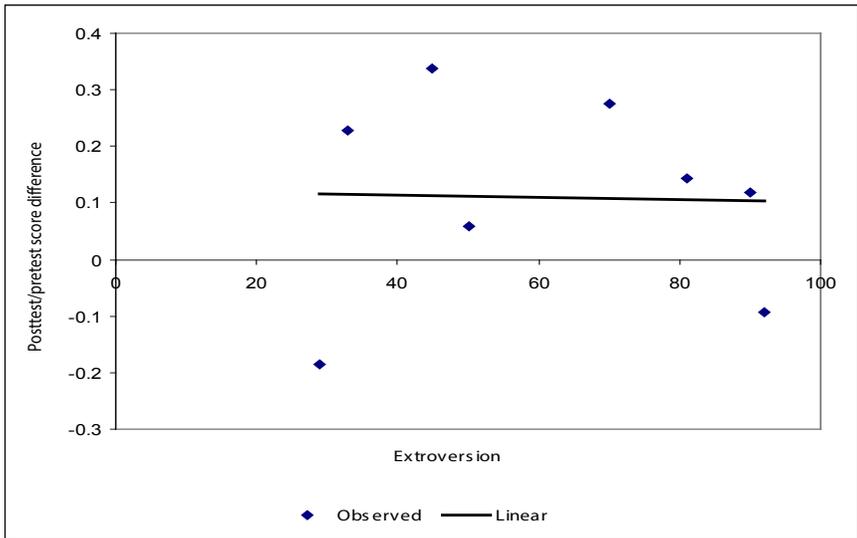
Next, in order to find the relationship between personality and the effectiveness of CF provided, each of the global personality traits was correlated to the pre- to posttest score differences (Table 4).

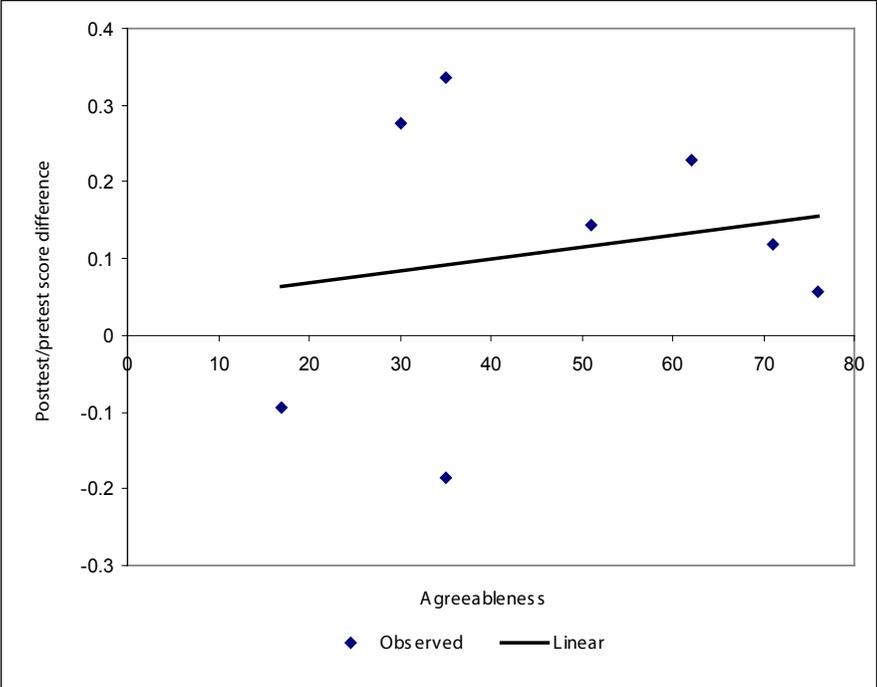
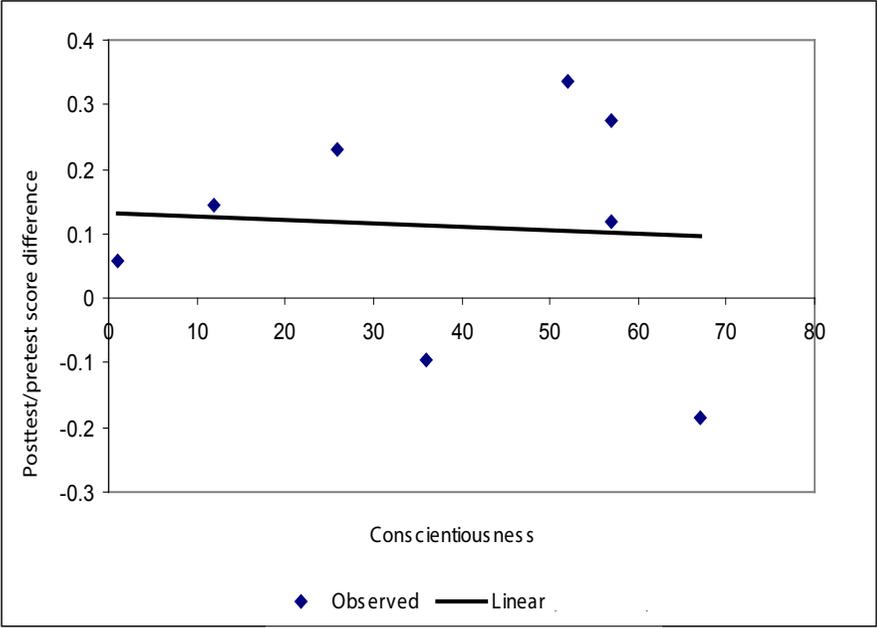
Table 4  
Global Personality Traits Correlations to CF Effectiveness Outcome Measure and ANOVA F-values

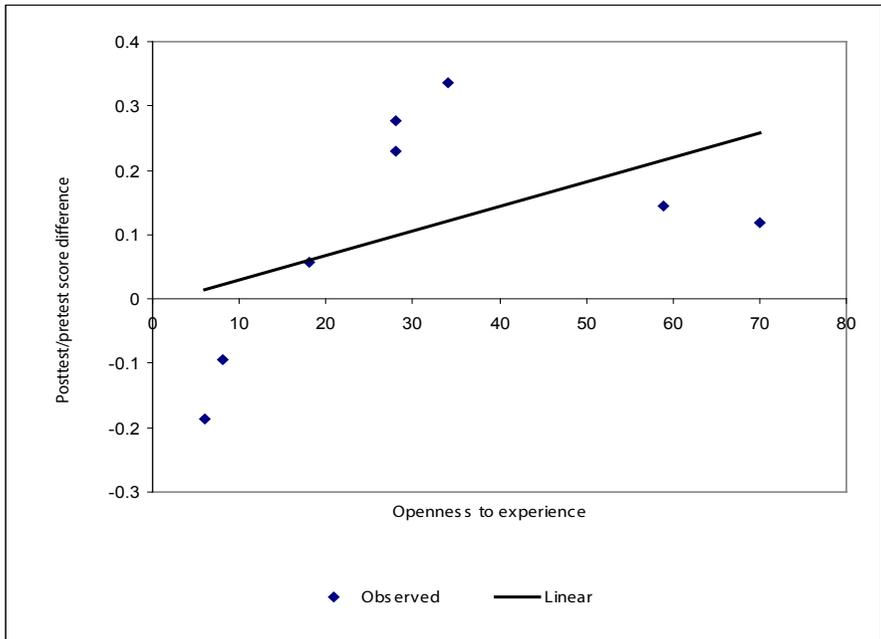
Personality Trait	Pearson Correlation Coefficient	ANOVA F-value	Two-tailed P-value
Extroversion	-0.025	0.004	0.952
Neuroticism	0.327	0.719	0.429
Conscientiousness	-0.069	0.029	0.871
Agreeableness	0.178	0.197	0.672
Openness to experience	0.483	1.827	0.225

Table 4 indicates that no correlations reached statistical significance—this is not unexpected and related to the low sample size. Despite this, the coefficients of two traits and their relationship to the outcome measure scores stood out: neuroticism and openness to experience. Scatter plots of the global personality traits and the pre- to posttest score differences allowed for a visual examination of the relationships, and a linear regression analysis was conducted to see if any of the relationships have predictive potential.

Figure 1  
 Extroversion, Neuroticism, Conscientiousness, Agreeableness, and Openness to Experience Scatter Plots







The scatter plots (Figure 1) suggested that some personality traits may have a relationship with CF effectiveness, as measured by the change in accuracy from pretest to posttest. Surprisingly, extroversion did not appear to have any relationship with the outcome measure. However, the linear regression lines on these graphs suggested that openness to experience, neuroticism, and agreeableness were traits of interest and merited attention in the qualitative analysis. Those who scored higher on openness to experience, neuroticism, and agreeableness showed more improvement on their outcome measure scores.

Quantitative findings revealed that while specific personality traits, as captured by the Goldberg’s Big Five-Factor inventory, appeared to play a role in the participants’ ability to improve from CF, the relationships were not statistically significant. As such, in order to arrive at a more nuanced understanding of the relationship between personality and CF effectiveness, qualitative data from the interviews were examined, and appeared to support quantitative findings. For example, Lucy, who described herself as someone who enjoys participating in activities like riding roller-coasters and bungee jumping, scored relatively high on openness to experience compared to her classmates and showed improvement from pretest to posttest. Similarly, intellectual curiosity, a characteristic that falls under the openness to experience trait, was exhibited by Nora and Rose, feasibly contributing to their improvement from pretest to posttest.

Qualitative data also supported the positive relationship with agreeableness and CF effectiveness evidenced in the correlation analysis. For example, Tim, who scored high on agreeableness, said that this trait impacted his response to CF because he wanted to please the teacher: "When teacher correct my answers, I will try my best to get the right correction because I do not want my teacher disappointment." Both his learning outcomes in the quantitative phase and response to CF in the qualitative phase of the study showed that he appeared to benefit from CF.

One emergent finding in response to the second research question *How do learners with different personality traits respond to and experience oral corrective feedback?* was the tendency of some participants to actively engage with the CF in ways that reflected specific personality traits.

The interview and SR data suggested that extroversion did not appear to influence the participants' ability to improve from CF, and conscientiousness did not seem to have a particular influence either, except for those with very low (or above average) scores. Participants who scored very low on conscientiousness, as expected, described difficulty with focus, and reported that they found prompts ineffective and confusing. For example, Sara, who scored in the first percentile on conscientiousness, frequently reported during SR that when she was corrected (which she once referred to as the teacher "bother[ing]" her), she forgot what she was going to say, and, as a result, CF left her confused. Thus, it appears that due to her low ability to maintain focus because of her extremely low conscientiousness, she struggled to process CF and speak at the same time. Likewise, during SR, Nora, who scored in the 12th percentile on conscientiousness revealed that she, too, frequently missed corrections and forgot them, saying, "Most teachers, they give information orally, and then when you go home, you just forget, what is this, what can I do?" Nora said that she had trouble focusing simultaneously on both content and grammar. However, a higher score on conscientiousness may also have been detrimental to a participant's ability to benefit from CF. Rose, who scored in the 57th percentile on conscientiousness, one of the highest scores in this class, revealed that a hyper-focus on accuracy reduced her ability to benefit from prompts and recasts because she was too caught up in planning grammatical sentences to understand what the teacher was correcting and why.

Another finding was that students with more competitive personalities failed to notice most of CF on their own errors, as shown in the interviews and SRs. For example, Lucy, who described herself as highly competitive, always "fighting the life to be number one," frequently did not notice CF, and when she did, she disagreed with it. Lucy, in fact, did not notice any prompts and noticed a recast only once. In one instance she failed to notice two recasts in a row. The one recast that she noticed did not have the desired effect because Lucy reported thinking that her response was correct and she should not have been corrected.

Despite the fact that Lucy did not appear to notice the vast majority of CF on her speaking, she may have benefited from the CF provided to her or others as an awareness-raising experience. Although she did not appear to notice most of her own corrections, she explained that, “[I] have it in my mind that I made this [past tense] mistake before.” Furthermore, on the third day of treatment, she made a number of self-corrections on her past tense usage. When asked why she corrected herself, she explained that she “has this in my mind,” saying, “yeah, maybe because the teacher correct me.” In fact, this was another emerging finding, that a positive attitude towards CF allowed some participants to see CF as a conscious awareness-raising activity. Rose reported that CF raised her awareness and attention to the use of the past tense, and she focused on this feature when she spoke and when she listened to others.

Like Lucy, another highly competitive participant, Hope, was convinced that the teacher never corrected her spoken grammar because there was nothing to correct. When asked if she noticed the teacher correcting her spoken grammar, she adamantly responded: “Never. Never. She said I’m good in grammar... Even in writing it’s minor mistakes. [Interviewer: And spoken?] “Never, never.”

Perfectionism emerged as a personality characteristic that appeared to have a detrimental impact on the students’ experience of CF; participants who were identified as perfectionists reported finding CF disruptive and upsetting. Rana showed a tendency towards perfectionism, wanting to do things “perfectly” and fearing mistakes, and she did not improve on the posttest. Hope showed even greater perfectionistic tendencies and did not acknowledge the teacher’s CF because she believed that she had “fixed” her past tense errors and there was nothing there to correct. During SR, when it was revealed that she had been corrected, Hope tried to explain away her errors or justify them. She saw her errors with the past tense as “fixed” and felt very badly when she made them. Hope said, “when someone correct me, I will blame myself why I made a mistake...I feel bad... Because I feel like I should have studied more.” This impacted her response to CF: “When a teacher correct me I feel sad because I would say to myself I could’ve done better.” Her emotional response to CF was self-recrimination, believing that she must work harder to be perfect.

Hope’s response to CF supports her high neuroticism score. Yet, unlike the suggestion from the quantitative findings that neuroticism may have a positive impact on CF effectiveness, the interview and SR data showed that neuroticism may play a complex role in student CF experience, and this relationship appeared to be mediated by agreeableness. Hope’s low agreeableness (competitiveness reduces agreeableness) may have had an important impact on her response to CF when in interaction with her high neuroticism, as evidenced by her emotional response of self-recrimination to errors. Hope’s interview and SR revealed that because of her highly competitive personality, her conviction that she had mastered this grammatical

structure, and her emotional investment in maintaining this belief due to her perfectionism, she missed almost all CF provided to her.

Some students reported concerns that the errors of their peers could negatively affect their speaking skills and progress. For example, Hope talked about how her peer's errors were having an impact on her language accuracy, saying "my speaking level is decreasing." Likewise, Nora said that she believes that the teacher should correct other students more because her experience suggests that she is affected by their errors; she considers errors that others make "a real problem" because she finds herself repeating them, saying, "sometimes when you think about something, like this shouldn't be happening [a peer making an error], the next day you may make the same error because it's in your head."

Furthermore, some participants appeared to resist accepting CF until they understood and accepted the reasons for which they were being corrected. One such example comes from Rose, who responded to a correction with a prompt by saying the incorrect word with extra stress, which she later explained, "Maybe I'm not, at the time I didn't realize that she's correcting my grammar, but I know enhance is wrong." She revealed that she thought the teacher said "hence," and she kept thinking, "Why hence? Why is it 'hence' it should be 'enhance.'"

Occasionally, these reactions were misunderstood by the teacher as an indication that the student was upset or uncomfortable, rather than benefiting from the CF. In another instance, when Rose received a recast, she again responded with an exaggerated emphasis of the corrected phrase, appearing to be irritated. However, when she was played that section during SR, she exclaimed, "I didn't realize! She's correcting my grammar! I am sorry [laughs] ... I am talking about meaning, and she is correcting my grammar! [laughing]." Further probing revealed that Rose misunderstood the focus and intent of the correction and did not experience the CF as the teacher intended it.

In other instances, participants experienced some prompts and, less often, recasts as suggestions or differences of opinion that they could choose to ignore. It may be that elicit completion prompts and even partial recasts, as used in this study, were subtle and vague enough to indicate that the teacher may be uncertain, and thus, allow room for debate. Nora, for example, referred to a recast correction as an opinion, saying, "they say that you shouldn't stick with your opinion, you have to listen, but I am here, sticking with my opinion," which suggests that she saw the teacher's CF as debatable. Similarly, Hope treated prompts as suggestions. When asked about prompts during SR, she indicated that she understood that the teacher was correcting her, yet when the teacher repeated the prompt, Hope did not respond, appearing to ignore it.

## Discussion and Conclusions

### *Relationship Between Personality and CF Effectiveness*

While this study is explorative, the findings suggest that personality traits overall do appear to play a role in how students experience CF and whether or not they benefit from it. Individual traits, however, correlated with learning outcomes differently. For example, in this study, extroversion did not appear to have a relationship with learning outcomes, measured as a reduction in past-tense errors; this was in line with Ehrman and Oxford's (1995) finding that extroversion-introversion appeared to have almost no relationship to language learning. This is despite other research suggesting that introversion is a desirable trait for academic achievement and learning in general (Ackerman, 1999; Liadra et al., 2007) as well as language learning (Carrell et al., 1996; Dewaele, 2005), while others suggesting that extroversion may have an advantage in language learning (Ehrman & Oxford, 1990; MacIntyre & Charos, 1996).

This study's findings indicate that neuroticism may have both a positive and negative relationship with CF effectiveness, and this can be contextualized in existing research that also shows mixed findings on the impact of neuroticism on learning (Diseth, 2003; Ehrman & Oxford, 1995; Robinson et al., 1994). One crucial factor in this study appeared to be whether or not the student had perfectionistic tendencies. This finding is supported by existing literature showing that perfectionists have low error tolerance (Drizinsky et al., 2016), which can be detrimental to CF effectiveness. More support for this relationship exists in Ehrman and Oxford's (1995) findings that cognitive inflexibility, conceptualized as a need for order and sharp distinctions between ideas, is a disadvantage in language learning. Hope was a participant who exemplified these traits. She reported not noticing the vast majority of CF directed at her, refused to acknowledge her past tense errors, and insisted that she did not make errors because she had "fixed" them. When she argued that her errors were actually correct, she may have been drawing on her intrinsic (more trait-like) perfectionism in reacting to CF in this manner. Individuals like Hope, who have very high expectations of themselves, tend to classify an incorrect response more often as a correct response than low-perfectionism participants, and show a larger number of undetected errors. It is hypothesized that this may be due to their high self-esteem or inability to admit imperfection (Drizinsky et al., 2016).

Another factor, which appeared to interact with neuroticism and may explain its complex relationship with CF effectiveness, is whether the student is focused on achievement or failure. Hope, with her focus on not making mistakes, was someone who was motivated to reduce failure, whereas Nora saw errors as an opportunity for improvement. This was exemplified by her excitement for Rose when she was being corrected, as Nora reported thinking,

“Yes, Rose, good! You are making a mistake and the teacher is helping you!” Thus, unlike Hope, Nora was focused on what she can learn and how she can improve, a process that includes errors, which indicated an achievement-focused motivation. Higgins’ (1997) regulatory focus theory is about these two types of motivations, a promotion focus on gains and accomplishments and a prevention focus on reducing failure, preventing losses and relying on safety. This theory may be used to explain why, even though Nora and Hope both scored high on neuroticism, Nora appeared to benefit from CF, while Hope’s responses suggested that she did not.

Because both Nora and Sarah scored very low on conscientiousness, it is possible to compare the two, and note that they both tended to miss corrections and forget them. This may be a result of difficulty maintaining focus, in Sarah’s case, or in Nora’s case, being unable to simultaneously focus on both content and grammar, and may suggest that they would not benefit from CF types that are not clear in intent or linguistic target. However, almost counter-intuitively, Rose’s hyper-focus on the accuracy of what she was saying also reduced her ability to benefit from prompts and recasts. Thus, overall, it appears that conscientiousness’ impact on CF effectiveness is mediated by focus, with the relationship being U-shaped: too low or too high a focus may be detrimental for the effectiveness of prompts and recasts. This finding provides a possible constraint to the findings in existing literature that conscientiousness is positively correlated with achievement, high strategy use, and successful language learning (Diseth, 2003; Fazeli, 2011b; Costa & McCrae, 1992; Reiss, 1983).

This study’s finding of a positive impact of openness to experience on CF effectiveness aligns with existing research (Carrell et al., 1996; Chamorro-Premuzic et al., 2007; Diseth, 2003; Ehrman & Oxford, 1990, 1995). Agreeableness appeared to have a positive relationship with learning, assumed to be due to CF effectiveness, and it adds to existing literature, which is too limited to be conclusive. Moreover, competitiveness (a low agreeableness characteristic) actually appeared to reduce noticing of CF. In fact, competitiveness seemed to be a critical attribute when it came to effectiveness of CF, particularly how competitive some students were with others. In fact, in this study, high competitiveness emerged as an important facet of agreeableness that interacts with neuroticism. This interaction may explain why Nora, who was highly neurotic but not competitive, was receptive to CF and appeared to benefit from it, whereas Hope, who was highly neurotic and very competitive, did not accept any CF and did not appear to benefit from it.

### *Student Experiences of CF*

Interestingly, participants in this study did not indicate that CF caused anxiety detrimental to their desire to speak in class, as found by Mak (2011),

or that frequent CF may discourage the process of learning as suggested by Agudo (2013). However, while a very positive attitude towards CF exhibited by the participants in this study seemed to positively affect their learning experience, the situation may be more complex. Havranek and Cesnik (2001) found that a moderately positive attitude towards CF results in better learning than a very positive or very negative attitude. Furthermore, students may not always be the best judges of what is most effective for their learning. For example, Tim said he preferred prompts but also found them confusing. Moreover, Havranek and Cesnik's (2001) finding that being irritated by CF can be conducive to learning in combination with good linguistic competence echoes our findings for Sarah, who was embarrassed by correction but was receptive to it, and overall, found that CF (especially recasts) was quite effective for her learning of the past tense "-ed." Thus, an important caveat in interpreting the results on students' attitudes towards CF is that they do not need to be highly positive in order to be of benefit.

The finding that prompts and recasts in this study were consistently a source of significant confusion for many participants is troubling because Agudo (2013) found that while most students did not resent being orally corrected in the classroom, what actually upset them was not understanding what the teacher was correcting. These findings are further supported by the existing research on the ambiguity of recasts, that they may be misinterpreted by students as confirmation checks, thus overlooking their corrective force (Ellis & Sheen, 2006; Panova & Lyster, 2002). In fact, our results seem to echo Egi (2007), who found that only 57% of recasts were noticed and that students interpret CF as response to content, and thus, recasts can be inaccurately perceived as much as 75% of the time (Nabei & Swain, 2002).

Finally, there was a finding that a significant number of participants disagreed with the teacher's correction and resisted her feedback. An intriguing aspect of this finding was that most of these instances of resistance or disagreement were in response to prompts (except for two instances, which were in response to recasts), suggesting that prompts may be subtle and vague enough to indicate that the teacher may be uncertain, and allow room for debate. It is possible that the more implicit nature of prompts and recasts, as used in this study, may not clearly signal to learners the need to correct, allowing them to believe that the choice of tense is a matter of opinion.

## Limitations

While personality traits do appear to play a role in how students experience CF, and whether or not they benefit from it, a few limitations are important to consider when interpreting and contextualizing these results. Firstly, while the Five-Factor Model measure of personality summarizes the fundamental regularities in human behaviour, it cannot account for all the richness that encompasses human individuality and the processes that contribute to it.

Every introvert may be introverted in a different way, yet that is not reflected in the scores on the inventory. Instead, different people can obtain the same score, resulting in a characterization of a person only on a global level.

A particular limitation emerged in regard to two personality traits: agreeableness and openness to experience. There appears to be numerous heterogeneous subtraits subsumed under these two global traits, erasing profound differences between individuals.

In addition, for some participants, while the direction of their personality scores was accurate, they may have been distorted by choosing “strongly agree” instead of “agree,” and this sensitivity to word choice may be of particular importance for L2 students taking this test. Nonetheless, while this inventory has limitations, it is a useful and well-validated starting point (McCrae & John, 1992).

In addition, the SR procedure is based on an assumption that human consciousness can be observed in the same manner that one can observe events in the external world (Gass & Mackey, 2017). As such, the procedure is as valid as the validity of this assumption. Although the SR has the potential to allow researchers to understand oral interaction better, and is often used to measure learner’s noticing (Egi, 2004), there are potential problems that may have rendered the accuracy of introspective data in this study questionable; these include issues related to memory and retrieval, as well as whether the participants were aware of their real motivations, and willing to report them (Egi, 2004; Gass & Mackey, 2017).

The study design must also be considered: by focusing on a single grammatical feature at a particular proficiency level, questions remain as to the impact of CF on other grammatical features (Sheen, 2011) and learners at other levels of proficiency (Nassaji, 2013). The small sample size, as well, limited the degree to which the findings could be generalized through robust quantitative analysis.

Context-specific factors may also have had an impact on the findings. While students reported that they were not taking any other language classes, exposure to language can never be fully accounted for in an ESL environment; experience and exposure to language outside the classroom may have contributed to the positive outcomes of CF in this study. In addition, in the context of the classroom, the treatment may have been artificially enhanced: because the teacher’s approach at this level was ordinarily to avoid oral CF, when she did provide the CF, it may have been more salient than expected to students (Lyster & Mori, 2006).

## **Implications**

The findings of this study may help guide teachers in making their CF more effective by suggesting that CF may need to be tailored to the personality of the learner. For example, teachers may include a simple brief personality

test during needs assessment, and based on the results of this study, avoid frequently correcting students who score very low on conscientiousness, while encouraging highly competitive students to be more aware of CF by making it more explicit.

Teachers can support different learners with specific strategies as well. Participants who scored very low on conscientiousness said that they often forgot the corrections that they received; delivering CF in writing and summarizing errors visually during class might be helpful for students generally, and those with low trait focus in particular. Overall, an important message from this study may be the support it lends to an implicitly held belief by teachers that student personality does have an impact on students' ability to benefit from CF and, subsequently, their learning process.

In considering pedagogical implications it is also important to note that while participants in this study expressed an overwhelmingly positive attitude towards CF, this could be due to the context of this type of L2 class. This was a credit-bearing content-based EAP class, where accuracy was privileged by the participants, and this may not be true of other contexts, like settlement classes where fluency and communication may be privileged over accuracy, and students may not welcome interruption and frequent grammatical correction. In addition, the context may also have played a selective role attracting students with particular personality traits, who focus on and respond to specific types of instruction, such as CF. In fact, students in this class scored higher than average on extroversion and lower than average on openness to experience. This may not be the case in a different context such as settlement language classes or workplace ESL classes. Moving forward, future research across different contexts may provide further insight into the ways in which individual differences such as personality intersect with the impact of oral CF in the classroom.

### *Acknowledgement*

We would like to thank the teacher and student participants for so generously sharing their time, thoughts, emotions, and experiences, and bravely allowing us to subject them to scrutiny.

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## *Appendix A: Spontaneous Oral Production/ Speaking Task Samples*

1. *Recall a time in the past when technology helped you with something? Recall a time when technology made life difficult. For example: Were you ever late for an important appointment? Tell this story. Did technology help you or did it make things worse? Has a computer virus ever caused problems for you? What technological problems annoyed you recently?*

2. The day before, students had to listen to a lecture about “Culture shock,” and had to answer comprehension questions on the content of the lecture. On this day, the teacher reviewed with them the four stages of culture shock: honeymoon stage, culture shock, adjustment stage and recovery stage. The task was: *Talk about a time, while living in another country, when you felt that you were experiencing one or more of the above stages. What happened? Describe in detail.*

3. Students had to read an article called “Blue-Sky Research” for homework.

*Basic/Blue-sky research can lead to unexpected applications. Can you think of an example from the past when an important research discovery was made that had a huge impact only later on? Describe it.*

4. *Are you happier now or were you happier when you were younger? Give examples.*

5. Based on a listening they had done the day before: *I want you to talk about a situation in the past when you made an irrational decision about spending money and explain it. Try to be as specific as possible. If you haven't had such an experience you can talk about a friend or family member who did.*

6. *Was participating in the research study a positive or negative experience for you? Be honest and pick a side. Use examples from the past 4 weeks to support your argument.*