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The Impact of Reflective Reciprocal Teaching on Iranian Intermediate EFL Learners' Academic Self-Concept

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Abstract

The present research sets out to examine the impact of reflective reciprocal teaching (RRT) as a mode of instruction on the academic self-concept of Iranian English as a foreign language (EFL) learners. To this end, three classes comprising 100 EFL learners majoring in English teaching were selected according to convenience sampling and designated as the reciprocal teaching (RT) group, the reflective reciprocal teaching (RRT) group, and the control group. A mixed-method approach and a quasi-experimental design with a pretest, treatment, and posttest paradigm were utilized in the present study. In the quantitative phase, the data were gathered via the academic self-concept inventory. The descriptive statistics and ANOVA results indicated the significant impact of the RRT on the learners' academic self-concept. Also, qualitative investigation of the learners' perceptions via semi-structured interviews and content analysis revealed their positive perceptions regarding this mode of instruction. Taken together, it appears that the significant others (teacher and peers) role and instruction have the main contribution to the learners' self-beliefs. The results of the intervention

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program, in turn, generate a new outlook on all teaching, learning, and assessment processes. They also provide suitable grounds for improving psychoeducational constructs besides learners' cognitive and regulatory skills.

Keywords: cognitive apprenticeship, cooperative learning, learners' perception, reciprocal teaching, reflection

Introduction

Over the past 40 years, the paradigm shift has made drastic alterations in second language education (Jacobs & Farrell, 2001). In the same vein, educational practices will most likely be improved when the educational system is redesigned with prioritizing individuality (Wangid, 2014) by focusing mainly on training self-directed and self-regulated learners (Akerlind, 2007). The concept of self-regulated learning (SRL), being quietly relevant to the notion of learner-centeredness (Bown & White, 2010), includes all cognitive, metacognitive, and affective factors (Wangid, 2014). Within the context of education, teachers have a significant role in cultivating all of these dimensions. This accomplishment can be fulfilled via teaching explicit instructional strategies, familiarizing learners with the concept of autonomy, providing a constructivist learning environment (Kirschner et al., 2006), and "constructing a positive self-efficacy perspective about their power of self-regulated learning processes" (Zhao, 2016, p.173). Several instructions and practices provide the foundation for reaching these objectives. Reciprocal teaching could be introduced as one of them, helping learners strengthen this process's cognitive and metacognitive elements (Delett et al., 2001). This instruction deals with scaffolding, modeling, and social interaction by making learners involved in cooperation as doers and observers (Rahimi & Sadeghi, 2015). In addition, reflection is highly valued in the self-regulation process (Zimmerman, 2000), and reflective practices introduce learners as key agents who construct their understanding (Osterman, 1998). However, to become self-regulated, the affective dimension related to the learners' emotions, attitudes, and beliefs (Zulkarnaen, 2019) should also be considered critical. Academic self-concept, attributed to the mentioned beliefs and attitudes, has been regarded as an entity having a significant contribution to the learners' SRL and academic

performance (Green et al., 2012). This psycho-educational construct deals with the overall belief of self-worth connected to the learners' perceived academic competence (McCoach & Siegel, 2003). Many investigations, including the one conducted by Asadi Piran (2014), have confirmed the vital role of affective factors such as self-related issues in language learning. However, it seems that the contribution of self-related factors, especially self-concept, to this process has been largely overlooked in EFL contexts. In other words, the dominant educational paradigm of these contexts neglect learners' interests, beliefs, and sense of self (e.g., self-regard/self-worth) by preventing their voices from being heard (Fandiño Parra, 2008). In these contexts, Iran is a good example; there is a scarcity of effective learner-centered instructions that empower learners by making them self-directed and engaged (Motallebzadeh, 2009). Among a plethora of studies indicating the importance of the academic self-concept to learning achievement (e.g., Ghazvini, 2011; Rodriguez, 2009), few have explained the practical significance of encouraging self-growth and the most effective ways of fulfilling this accomplishment in foreign language classrooms. Notwithstanding the great relevance of deep learning strategies, self-reflection, and strategic learning approaches to the development of learners' self-concept (Rodriguez, 2009), there has been little empirical research examining the impact of instructions addressing all of these issues on Iranian EFL students' self-issues, primarily academic self-concept. Therefore, this study attempts to introduce a new mode of scaffolding strategy-based instruction, reflective reciprocal teaching, integrating cognitive apprenticeship principles into collaborative learning to provide external and internal input resources. It also focuses on reflection as a personal process (Schon, 1987) and a social activity (Osterman & Kotkamp, 2004). To put it another way, it aims to improve academic self-concept formation, the most important contributor to SRL's affective motivation dimension (McCombs, 1989), by combining introspective and retrospective reflective practices and working on four reading strategies: predicting, questioning, clarifying, and summarizing, all of which are explicitly taught before being practiced through cooperative learning techniques. The following research questions have been designed to achieve this goal:

Q1. Are there any significant differences among the three modes of instruction (reflective reciprocal teaching, reciprocal teaching, and non-reflective/reciprocal teaching) in terms of their effects on Iranian EFL learners' academic self-concept?

Q2. How do Iranian EFL learners perceive reflective reciprocal teaching mode of instruction?

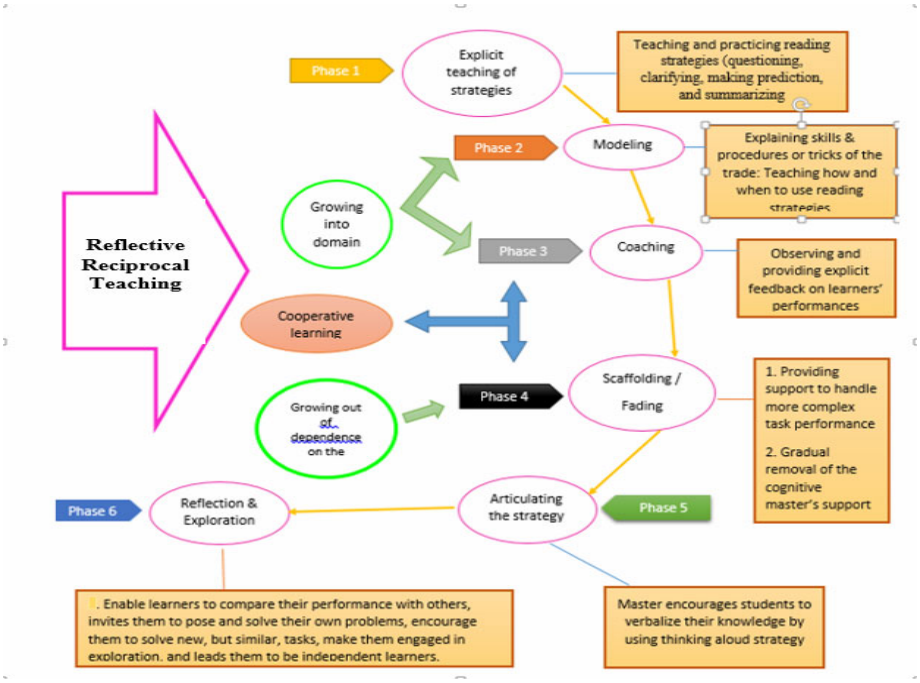
Literature review

Students' active engagement in learning is emphasized in recent approaches by their empowerment in decision making processes (Spiller, 2012). Boosting active learning in classrooms could be fulfilled via learner-centered instructional strategies (Er et al., 2012), assisting learners to become more responsible and gain positive self-worth and self-regard (Arnold & Brown, 1999). As can be traced in most active learning theories concentrating on the social dimensions of learning, participating in these activities gives them the best opportunity to learn cooperatively, think critically, and act creatively (Niemi, 2012). Beside behavioral, cognitive, and social dimensions of active learning (Watkins et al., 2007), affect has also made a prominent contribution to this process (Drew & Mackie, 2011). Among affective factors, self and self-related issues play an essential role concerning the learners' academic performance (Green et al., 2006). In this regard, Naouel (2015) claimed that the self is a central part of individuals' personalities, which has a significant contribution to their judgment. It is also considered a substantial entity in self-regulated learning (Zimmerman, 2008). Accordingly, "for self-regulated learning processes to be engaged, students must possess positive beliefs and perceptions of competency and control in particular learning situations" (McCombs,1986, p. 314). Self-concept is an exclusive active cluster of such beliefs dealing with self-controlling of individuals' behaviors, considered a byproduct of the constellation of individuals' self-perceptions resulting from their interactions with the environment and evaluations done by significant others (Schunk, 1987). Developing learners' academic self-concept as a self-regulated capacity activates their ability to be flexible in the learning process

(Entwistle & Wilson, 1977) and paves the way for them to adopt a deep approach to learning (Evans et al., 2003). Many investigations have confirmed the affective factors' vital role, such as self-related issues, in language learning (Asadi Piran, 2014; Wang & Wu, 2020). However, the remaining question, which has not been investigated thoroughly up to now, is what role, if any, educational contexts can play in developing these constructs. In other words, there is inadequate empirical evidence revealing the importance of the causal role of various interventions regarding forming and improving these issues (Shavelson et al., 1976). Therefore, this study, considering learners' psychological states (academic self-concept) formation "resulting from a joint product of individuals' cognition and the social milieu" (Heidari-Shahreza, 2014, p. 89), aimed at investigating the impact of the reflective reciprocal teaching (RRT) mode of instruction on Iranian EFL learners' academic self-concept, and as a result, paving the way for preparing the prerequisites of developing the affective dimension of self-regulated learning. RRT, as depicted in figure 1, is a scaffolding strategy-based instruction representing many cognitive apprenticeship model features such as direct instruction, modeling, coaching, and scaffolding implemented in a reciprocal teaching/learning system. It increases learners' autonomy by including them in reflective practices such as portfolio creation, which is advised as a practical strategy for self-exploration, self-discovery, and self-disclosure (Paris & Winograd, 2003).

Figure 1

The reflective reciprocal teaching mode of instruction



The significance of this study lies in discovering a suitable instructional method to help EFL learners develop a psychological factor contributing to the SRL besides their academic abilities. Considering the importance and contribution of self and self-related issues to individual learners' lives makes it clear that educational goals should not be restricted only to developing academic competence and achievement. However, they should suppress this area by providing contexts for fully functioning individuals who pursue their morally acceptable self. In other words, individual learners' self-beliefs should be considered as crucial as their academic achievement.

Method

Participants

The study included 100 first-year EFL students from the Binaloud Institute of Higher Education in Mashhad, Iran, majoring in English language teaching. They were chosen via convenience sampling, but they were divided

into three groups using random selection. Each group included 31 to 38 EFL students in it. The Oxford Quick Placement Test was used to establish how homogeneous they were.

Instrumentation

Two tools were used to answer the research questions: an academic self-concept inventory and a semi-structured interview. The data were collected quantitatively using a translated version of the academic self-concept inventory, initially designed and developed by Ordaz-Villegas et al. (2013). This measure has 16 items, each having a 5-point Likert scale ranging from 5 (never) to 1 (always). It reports four task-oriented domains of self-regulation estimating learners' positive attitude regarding the acquisition of knowledge and the learning process, general intellectual ability focusing on their competencies to process, analyses, and synthesize information to be matched with new situations, motivation evaluating the degree of learners' inclination to do a particular task, and creativity measuring their degree of awareness regarding learning deficiencies to find solutions and make decisions strategically (Whillier et al., 2017). Also, semi-structured interviews were conducted to acquire qualitative data on the learners' perceptions of the efficacy of the intervention. According to the fact that academic self-concept is characterized by two elements of descriptive aspects of self-perception and evaluative ones (Marsh & Craven, 2002), all of the interview questions should measure learners' perception and evaluation of their self, dealing with academic domains such as self-regulation, creativity, motivation, and general intellectual abilities (Ordaz-Villegaz et al., 2013). The interview's descriptive questions were created using a quintamensional methodology to determine the strength of a respondent's beliefs and attitudes (Harrell & Bradley, 2009).

Procedure

The impact of the RRT mode of instruction on Iranian EFL learners' academic self-concept was studied in two major quantitative and qualitative phases ending for an academic year from September 22th, 2018, to May 31st,

2019 (34 sessions). The first phase was started with a pilot study done on a group of learners being similar to the participants of the actual investigation. The translated version of the academic self-concept inventory was field-tested before implementing the research project. Following the implementation of the pilot study and the use of the Oxford Quick Placement Test to determine the learners' degree of competence homogeneity, three already formed classes were randomly assigned to two experimental groups (RRT and RT) and one control group received a non-reflective and non-reciprocal teaching instruction. Each of the three groups went through identical steps. However, what set them apart was the level of responsibility given to the teacher and students in terms of teaching, learning, and assessment approaches, as well as the importance of reflection and reflective practices in the learning process. First, in the pretesting stage, the teacher asked all three groups to fill out a questionnaire as the pre-assessment of academic self-concept. One of the experimental groups was exposed to the "reciprocal teaching instruction" focusing on scaffolding provided through explicit instruction, modeling, and collaboration. To introduce this intervention to the RT experimental group, first, the teacher explained the cognitive strategies (predicting, clarifying, questioning, and summarizing) explicitly and modeled how to apply them. Then, she randomly chose groups of four or five learners and assigned each group member a role dealing with the mentioned strategies. Next, the students must cooperate in pairs or groups to implement reciprocal learning practices by providing and receiving acceptable performance-related feedback. The fundamental objective of this form of social education technique is cooperation (Liu & Bu, 2016). On the other hand, the instructor in the second experimental group, the RRT group, went over all the relevant criteria regarding the purposes, instructional objectives, tasks, and procedures in the first two sessions. Following that, participants in the RRT group received a six-stage treatment that followed the principles of the cognitive apprenticeship method (Collins et al., 1988). Using a thinking aloud strategy, participating in conferencing sessions, and collecting portfolios provided them many chances to reflect introspectively and retrospectively on their learning experiences. During the first stage of this

mode of instruction, the teacher explicitly taught all the reciprocal teaching strategies before modeling them. In the second stage, she demonstrated how and when the learners could use the practiced strategies via modeling. After that, throughout the third and fourth stages, the learners were asked to work cooperatively on the four strategies mentioned above while being coached and scaffolded to increase their positive interdependence, individual accountability, and equal participation (Kagan,1989). The instructor observed and monitored the learners' activities through the coaching stage, provided explicit feedback on their performances, assisted them whenever necessary, and guided them to become meta-cognitively aware and reflective in their strategy use. Subsequently, through the scaffolding stage, the instructor using different scaffold supports, gradually withdrew the process and let them cope with the task situation and manage the process independently (Enkenberg, 2001, p. 503). In the fifth stage of this intervention, the learners could articulate their strategies and think how and when to use them via the thinking aloud technique. In this phase, introduced as the articulation phase, they could share their ideas and receive different feedbacks from their teacher and peers regarding their performances. Subsequently, by collecting their portfolio as reflective practice and a self-assessment tool, the learners went through the sixth stage of this intervention program, the retrospective reflective stage. Through this time, they could monitor their strategy use, evaluate their progress over time, and reflect on various learning challenges. Generally, by receiving teachers' metalinguistic feedback, they had another chance to gain more independent self-control regarding their language learning ability. In other words, after doing each assignment, they received some teacher's feedback (elicitation and metalinguistic clues) and did suitable corrections. Then, they had to answer some reflective questions to become aware of their process.

Furthermore, the teacher required each group to participate in a conference discussion every four weeks, providing them with another opportunity to assess their progress, diagnose problems, and evaluate different components of their portfolios based on the competencies and strategies that

had to be achieved within the reflective reciprocal teaching instruction. The recorded notes, given in a joint decision between the teacher and the learners, were kept in their portfolios. After that, during the study's second phase, the qualitative phase, semi-structured interviews on the RRT learners' impressions (descriptive and evaluative) of the RRT mode of instruction were also designed and conducted. Finally, the teacher requested that all the students complete the academic self-concept questionnaire that they had completed earlier.

Results

Based on the first research question, ANOVA analyses were applied to investigate the impact of the RT and the RRT modes of instruction on learners' academic self-concept. However, because the inventory used to analyze the learners' academic self-concept was translated, the questionnaire was first validated through a pilot study. A confirmatory factor analysis (CFA) utilizing the LISREL 8.50 statistical package was performed, determining the scale's validity (see Appendix B). The recommended instruction consisted of four dimensions: self-regulation, intellectual ability, motivation, and creativity. Each of these constructs is composed of four items. In this regard, several fit indices were examined to evaluate the model fit. The results indicated that the proposed model fitted well with the empirical data and that all items had accepted factor loading.

Quantitative Phase

The first research question looked at the impact of the RRT and RT modes of instruction on the students' academic self-concept. A one-way ANOVA comparing RRT, RT, and control group's means were used to verify that all groups were homogeneous regarding their academic self-concept prior to administering the intervention program. Before diving into the results of the one-way ANOVA on the academic self-concept pretest, it's important to note that the variances of the groups were not assumed to be homogenous. The significant findings of the Levene's test ($F(2, 97) = 6.60$, p.05) showed that the assumption of homogeneity of variances was violated on the pretest of

academic self-concept, as shown in Table 1. There is no need to worry about the violation of this assumption because the ANOVA table can be replaced with the robust Welch results (Table 3).

Table 1

Pretest of academic self-concept by groups; homogeneity of variances test

		Levene' Statistic	df1	df2	Sig.
Pretest Academic Self-Concept	Based on Mean	6.614	2	97	.002
	Based on Median	6.602	2	97	.002
	Based on Median and with adjusted df	6.602	2	71.848	.002
	Based on trimmed mean	6.594	2	97	.002

Table 2 provides the descriptive statistics for the three groups on the academic self-concept pretest. The RRT (M = 57.13, SD = 10.63), RT (M = 55.54, SD = 5.77), and control (M = 56.54, SD = 6.32) groups showed very comparable means on the pretest of academic self-concept.

Table 2

Descriptive statistics; pretest of academic self-concept by groups

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
RRT	38	57.1316	10.63185	1.72471	53.6370	60.6262
RT	31	5.5484	5.77834	1.03782	53.4289	57.6679
Control	31	56.5484	6.32371	1.13577	54.2288	58.8679
Total	100	56.4600	8.05714	.80571	54.8613	58.0587

The major findings of the robust Welch test are shown in Table 3. The results revealed that there were no significant variations between the three groups' averages on the pretest of academic self-concept (F (2, 82.88) =.357, p

>.05). As a result, we can deduce that before the treatment, the three groups were homogeneous concerning their academic self-concept.

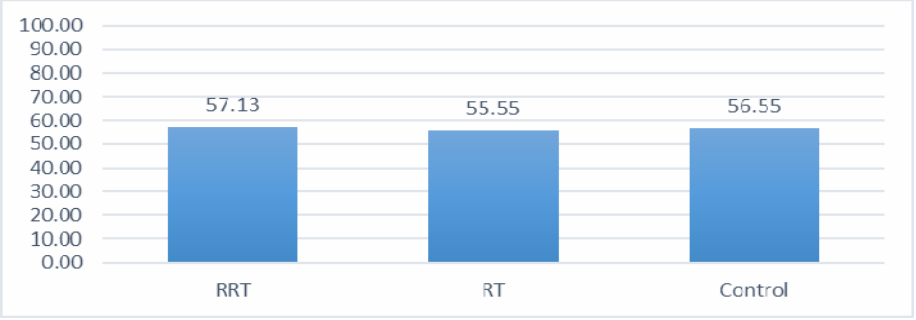
Table 3

Robust tests of equality of means pretest of academic self-concept by groups

	Statistic	df1	df2	Sig.
Brown-Forsythe	.357	2	82.881	.701

Figure 2

Means on pretest of academic self-concept by groups



On the posttest of academic self-concept, another one-way ANOVA was used to compare the means of the RRT, RT, and control groups. However, before doing an in-depth analysis of the results, keep in mind that the variances of the groups were kept homogeneous. Table 4 shows that the three groups had similar variances on the posttest of academic self-concept, as demonstrated by the non-significant results of the Levene's test (F (2, 97) = 2.14, p >.05).

Table 4

Test of homogeneity of variances; posttest of academic self-concept by groups

		Levene Statistic	df1	df2	Sig.
Posttest Academic Self-Concept	Based on Mean	2.125	2	97	.125
	Based on Median	2.147	2	97	.122
	Based on Median and with adjusted df	2.147	2	90.420	.123
	Based on trimmed mean	2.050	2	97	.134

As depicted in Table 5, on the posttest of academic self-concept, the RRT group had the highest mean (M = 102.07, SD = 9.19). Following that were the RT (M = 86.32, SD = 9.99) and control (M = 77.87, SD = 6.43) groups.

Table 5

Descriptive statistics; posttest of academic self-concept by groups

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
RRT	38	102.0789	9.19571	1.49174	99.0564	105.1015
RT	31	86.3226	9.99129	1.79449	82.6577	89.9874
Control	31	77.8710	6.43813	1.15632	75.5094	80.2325
Total	100	89.6900	13.43950	1.34395	87.0233	92.3567

As represented in Table 6, there were significant differences between the three groups' averages on the posttest of academic self-concept (F (2, 97) = 69.22, p *.05, 2 =.588 reflecting a large effect size). As a result, the null hypothesis was shown to be false.

Table 6

One-way ANOVA; posttest of academic self-concept by groups

	Sum of Squares	D df	Mean Square	F	Sig.
Between Groups	10514.369	2	5257.184	69.220	.000
Within Groups	7367.021	97	75.949		
Total	17881.390	99			

The results of post-hoc Scheffe's tests are shown in Table 7. These findings and descriptive data provided in Table 5 indicate that the RRT group (M = 102.07) considerably outperformed both the RT group (M = 86.32) (MD = 15.75, p.05) and the control group (M = 77.87) (MD = 24.20, p.05) on the posttest of academic self-concept.

Table 7

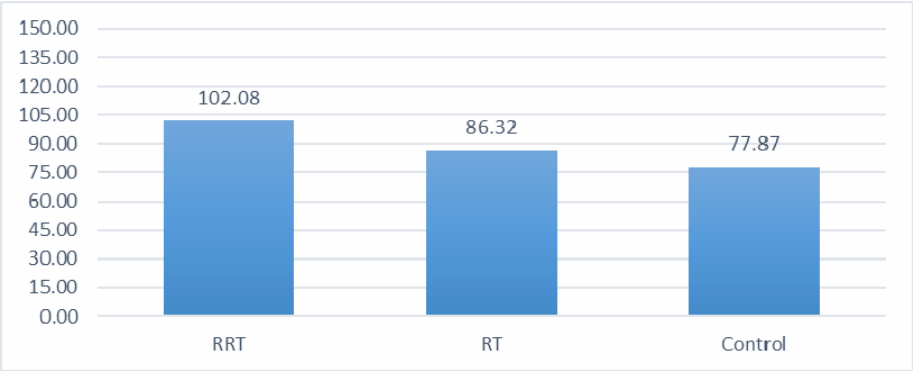
Post-hoc Scheffe's Tests; posttest of academic self-concept by groups

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
RT	Control	8.45161*	2.21358	.001	2.9486	13.9546
RRT	RT	15.75637*	2.10917	.000	10.5129	20.9998
	Control	24.20798*	2.10917	.000	18.9645	29.4515

*. The mean difference is significant at the 0.05 level.

Figure 3

Means on posttest of academic self-concept by groups



Qualitative Phase

The current study additionally investigated EFL learners' perceptions of the RRT technique by concentrating on the following research question:

Q2. How do Iranian EFL learners perceive reflective reciprocal teaching mode of instruction?

The quantitative phase's findings revealed that, while both the RT and RRT groups beat the control group in terms of their participants' academic self-concept, the RRT group's learners made significant development in this area when compared to the RT group. A semi-structured interview was designed and conducted during the qualitative phase of this study to support the hypothesis that the RRT group learners' self-involvement was developed more than the RT group members. Due to this aim, the learners' were asked about their feelings, attitudes, and beliefs regarding the introduced mode of

instruction. Following that, their responses to the interview questions were audio-recorded, written down, and examined. This study's coding technique yielded positive and negative views, including three general themes and eight subthemes. The emerging themes were divided into three categories: the sense of value, self-regulated learning, and learning frustration. The data's three emerging themes and eight subthemes are illustrated in figure 5 (Appendix B). The results were also depicted in figure 6, created by MAXQDA software (Appendix C). Table 8 shows the proportion of features perceived by the learners as a result of the RRT mode of instruction.

Table 8

Percentage of categories deduced from the learners' perception

		Themes	Subthemes	
RRT G	Positive perceptions 95%	Sense of value 51%	Confidence	27%
			Intrinsic motivation	24%
		Self-regulated Learning 44%	Autonomy	21%
			Perceived competence	7%
			Metacognitive awareness	4%
			Creativity	12%
	Negative perceptions 5	Learning frustration	Time consuming	2%
			Anxiety provoking	3%

As depicted in table 8, sense of value, the first theme, was then subdivided into two subthemes: intrinsic motivation and confidence. Encouragement, value/utility, attention-keeping, and interest/enjoyment were among the latter. These aspects, highlighted by 51% of the participants, were linked to the teacher's supporting role and the technique itself.

Confidence. As seen in Table 8, 27% of the learners felt that participating in various activities throughout the mentioned instruction offered them a sense of value in coping with their confidence. This claim was echoed by

a student who remarked,

(1) *"Gaining self-control over my thoughts, feelings, and social acceptance were the positive consequences of this model. Taking part in different activities through this course made me think that my success depends on both my peers' contributions and my effort and abilities."*

Intrinsic Motivation. Increased intrinsic motivation was another positive consequence of the teaching intervention. The findings indicated that 24% of the learners experienced great excitement and anticipation regarding the activities they were engaged in and the teacher's facilitative role. Concerning this matter, one of the learners remarked,

(2) *"The teacher provided the most effective encouragement this semester in her reactions to our errors and problems in class. Indeed, her encouraging rather than punitive responses were based on our abilities, not beyond them, to keep us motivated. Both in class and at home, we were encouraged to practice more activities, and the good thing was that we didn't go through a new lesson until we got to the previous unit."*

Also, sustained attention during learning activities and increased learners' interest were **highlighted** by examining their perceptions precisely. Concerning this matter, some of the participants admitted that they could keep track of their thoughts using various techniques and appreciated the learning process, which they described as novel to them. One of them phrased it this way:

(3) "*Teaching strategies explicitly, the teacher helped us not be distracted from the main points because of providing effective feedback regarding whys and hows of using them. I had a satisfying and enjoyable class, primarily working on worksheets and teacher reviews that were so innovative. It was such a way to persuade me to study before each class."*

Results also showed that 44% of students became self-regulated due to their optimistic self-image about their academic capabilities and skills. This theme was categorized into the learners' autonomy, metacognitive awareness,

creativity, and perceived competence.

Autonomy. As indicated in table 8, 21% of the RRT group members confessed that because of the multiple chances they had to establish their learning objectives, self-evaluate their successes, and reflect on their accomplishments, by the end of the course, they had become independent and felt autonomous. On this subject, one of the interviewees remarked,

(4) *"In this class, we were responsible for our learning even in terms of timing, dealing with and analyzing the text, and using the techniques. Compared to previous classes, there was a kind of control and purposefulness at all stages. However, this control was more through the person himself than the teacher."*

Perceived Competence. Another subtheme contributing 7% of the learners' perceptions of the mentioned instruction was perceived competence. As believed by Reynolds et al. (2009), this category deals with one's confidence in his/her ability to do a task efficiently. Concerning this matter, one of the learners believed,

(5) *"Participating in reciprocal teaching and learning activities made me more active, boosted my confidence in my ability to set, pursue, and attain my goals, and increased my learning resource use. This effort also improved my ambiguity tolerance when confronted with complex or unexpected circumstances".*

Metacognitive Awareness. Due to the learners' perspective, metacognitive awareness was another milestone achieved by this mode of instruction. In other words, 4% of the students stated that RT strategies and reflective practices enabled them to define personal learning goals, assess the quality of their work, and regularly track their progress. In this regard, one of them asserted,

(6) *"Using reciprocal teaching strategies helped me think continuously about what I learned, check my understanding, and plan what I wanted to do next. The Portfolio activity was the best way to practice and re-examine my knowledge during this period."*

Creativity. Finally, as 12% of the learners mentioned, their creativity

was fostered by cooperative learning, their teacher's facilitative role, and reflective practices. As noted by one of the learners,

(7) *"Multiple foci on details done via group work followed by reflective practices paved the way for me to envision issues from different dimensions and made me more critical regarding my learning process."*

Despite many potential benefits of this mode of instruction, some students (5%) pointed to the frustration they experienced due to its anxiety-provoking and time-consuming activities. For instance, working in groups was the most strenuous activity because they had to digest and absorb the other's opinions in addition to theirs themselves. Also, the assessment and reflective activities they dealt with while gathering their portfolio were demanding and challenging.

In a nutshell, the findings reiterated that this psychoeducational intervention was highly appreciated by the RRT group learners. Engaging learners in cooperative learning, thinking aloud protocols, reflective practices (introspective and retrospective), and self-assessment procedures while gathering their portfolios increased their autonomy, self-involvement, confidence, motivation, and accountability, and accordingly made them aware of the development of their positive self-perception of competence. In other words, these findings signify that increasing learners' positive self-perception about their competence dealing specifically with their creativity, intellectual ability, self-regulation, and intrinsic motivation could be fulfilled under special programs considering them as agentive figures with respected abilities when working cooperatively with significant others. Eventually, the quantitative and qualitative findings demonstrated that the RRT significantly impacted EFL learners' academic self-concept.

Discussion

This study sought to investigate the impact of a mode of instruction following the constructivist philosophy of teaching (Brown, 2008) on EFL learners' academic self-concept by focusing on democratic education, higher-order thinking skills, individual differences, cognitive and metacognitive

factors, cooperative learning, teacher scaffolding, and using authentic tasks (Wangid, 2014). It also tried to elucidate the best ways to promote self-regulated learning skills dealing with the individuals' competence beliefs regarding a task (Alexiou & Paraskeva, 2010). The study results indicated that both RT and RRT instructions had a significant role in developing learners' academic self-concept. However, the RRT group outperformed the RT group regarding this aspect. This conclusion could be justified by focusing on some distinguishing features of the RRT instruction.

The reflective dimension of this study, providing the internal sources of input, makes RRT instruction distinct from other similar instructions. Therefore, reflective practices can be considered effective in increasing learners' academic self-concept, especially its metacognitive dimension. This finding accords with the study results indicating that creating an e-portfolio could increase learners' sense of self. By doing this activity, learners were dealt with a process of reflection on their learning (Rowley & Munday, 2014).

Moreover, explicit teaching is considered the other distinguishing feature of the RRT that could be contributed to the concluded results. In pursuit of increasing learners' academic growth, explicit instruction is introduced as a useful tool used by educators (Archer & Hughes, 2010). Many experimental investigations supported the necessity of explicit teaching strategies besides teacher modeling to increase self-regulatory skills (Cleary & Zimmerman, 2004; Schraw, 1998).

Also, by considering sociocultural theories of the zone of proximal development and expert scaffolding as the theoretical frameworks of the introduced mode of instruction, it can be concluded that both significant others (teacher and peers) and language learning experiences, as the external input sources (Shavelson et al., 1976), had the main contribution to the development of the learners' academic self-concept. Concerning this matter, it is believed that there is a reciprocal relationship between learners' self-system and social and learning environment, guaranteeing the existence and growth of L2 self-concept (Kehrwald, 2014). Cooperative learning, through which learners could perceive themselves as members of a group (Nawaz & Javed, 2014), can be

assumed as a logical instruction providing the best opportunities to develop this sense. This result can be substantiated by some of the previous investigations which admitted the effectiveness of cooperative learning strategy regarding the formation of positive perceptions in learners performances compared to their peers and concluded that the learners' self-concept does not have a congenital essence. Instead, it is highly affected by its surroundings, and its growth proceeds while individuals gain new experiences and interact with significant others (Burns, 1982; Feldman, 2019).

Subsequently, discussing learners' perceptions regarding the impact of the RRT mode of instruction on their academic self-concept provided the researcher with the confidence to claim that the intervention program has been successful and effective. The results of the qualitative phase indicated that both metacognitive and affective dimensions of the learners' academic self-concept were enhamced due to the RRT instruction. Cooperative learning was considered as one of the major causes of shaping learners' positive beliefs and attitudes due to the impact of this instruction. According to the learners' claims, this technique gave them plenty of chances to try different strategies and negotiate with others, boosting their self-confidence and intrinsic motivation. These results are consistent with a prior study's finding, which found that cooperative learning substantially impacted learners' judgments of their language learning ability (Zohrabi & Yousefi, 2016). Scrutinizing the learners' viewpoints also disclosed the value of reflective practices concerning their motivation, one of the academic self-concept categories (López et al., 2011). Other studies, such as the one examining the effect of reflective practices on advanced EFL students' intrinsic motivation and readiness to speak (Zohrabi & Yousefi, 2016), support this conclusion.

The second theme, self-regulated learning, deals with learners' autonomy, metacognitive awareness, and perceived competence. It also addresses their creativity. The majority of the learners who received the RRT mode of instruction claimed that they were autonomous by the conclusion of the semester. Most of them using portfolios as self-reflective and self-monitoring tools claimed that collecting, revising, and assessing their work

made them aware of their strengths, weaknesses, and ultimate accomplishments. These activities also helped them build a positive attitude toward their learning agency and autonomy. Previous research has demonstrated the effectiveness of using the portfolio as a reflective teaching technique for these challenges (Nunes, 2004; Pollari, 2000).

The major contribution of significant others and the environmental reinforcements to the learners' self-concept is undisputable (Shavelson et al., 1976). However, metacognition could also shape this issue (Veenman et al., 2006). In this regard, it is mentioned that besides external input resources, learners' self-perceptions are highly influenced and formed by internal sources of input (metacognition). In other words, their internally generated view of self is shaped via metacognitive evaluations (Mandelman et al., 2010). Engaging learners to reflect and evaluate the quality of their performance might help them become more metacognitively aware of what they're doing and improve their monitoring abilities while learning. This aim can also be accomplished by helping them diagnose their actual weaknesses and strengths and making them aware of the extent to which they achieved the determined objectives during a course (Andrade & Du, 2007).

Another subtheme derived from learners' perceptions was perceived competence. That's to say, according to their beliefs and attitudes, both reciprocal teaching activities and reflective practices that incorporated unique evaluation approaches helped them establish a positive self-image regarding their academic abilities. This endeavor also improved their tolerance for uncertainty when confronted with complex or unexpected problems. They were also satisfied with their teacher or classmates' revisions, modifications, and comments. They also indicated that receiving constructive feedback and indirect responses to their errors gave them another chance to examine their capabilities and weaknesses, inspiring them to try their best to attain their goals.

Additionally, the findings revealed that cooperative learning and reflective practices boosted learners' creativity by increasing their multiple-perspective thinking ability throughout the learning process. The teacher's

engagement in providing practical challenges and encouraging students to share leadership roles was incredibly inspiring. According to learners' assertions, it inspired them to follow their intuition, take other chances, and examine their hypotheses. This inference accords with the investigation considering the importance and the effect of close teacher/student relationships on learners' creativity (Lilly & Bramwell-Resjskind, 2004).

It is also worth mentioning that, while most of the RRT group's participants were optimistic about the stated training, a few were irritated and concerned when they came across a new technique with some identifiable characteristics. However, it should be noted that the mentioned problems were subsequently alleviated while collecting their portfolios. Another research showed portfolio evaluation to effectively lower learners' anxiety, which may support this result (Huang, 2012).

In conclusion, these findings suggest that engaging learners in cooperative learning, reflective practices (introspective and retrospective), and self-assessment, and emphasizing the vital role of significant others (teachers and peers) through the process of learning could improve their attitudes, feelings, and perceptions regarding their academic abilities. They also could crystalize the ego-involving nature of language learning by focusing on the social nature of this process. Accordingly, based on the results gained through both quantitative and qualitative phases, it can be concluded that the RRT had an essential role in developing EFL learners' academic self-concept.

Conclusion and Implications

Due to the complicated nature of language which results from different interactions among many factors, learning a language is regarded a notably psychological process, in particular in relation to the fundamental needs of the learners. In this regard, teaching language should pave the way for the learners to gain autonomous learning (Montaño-González, 2017). Fulfilling this aim requires a combination and close association between the use of strategies, metacognition control, and motivational beliefs (Schraw et al., 2006). As a result, this study, like others looking into different aspects of this process,

attempted to elucidate the effectiveness of a particular mode of instruction, such as explicit teaching, modeling, scaffolding or coaching, and reflection, with the goal of improving Iranian EFL learners' academic self-concept (Efklides, 2011).

The findings from both the qualitative and quantitative stages demonstrated that reflective reciprocal teaching with external and internal input resources may be deemed a reliable mode of instruction, opening the path for learners' academic self-concept development. This instruction provides opportunities for boosting learners' positive beliefs regarding their actual capabilities when they are engaged in cooperative learning and doing reflective practices. It also improves learners' academic self-concept by familiarizing them with learning essential strategies taught through explicit teaching, making them believe in their capabilities as successful language learners. This case highlights the role of significant others (teacher and peers) in motivating learners. It also justifies the necessity of considering learners' beliefs, attitudes, and feelings about their language learning abilities in a language learning context in which they are mainly concerned about making a new self-image during a process demanding new forms of interactions and activities (Burns, 1982). Taken together, it appears that Iranian EFL learners experience different levels of self-concept due to various teaching techniques and instructions. In this regard, certain proactive strategies have been recommended to the instructors to help students build their self-concept. They include offering constructive comments and cautious praise, assisting learners in contributing appropriately to achievement and failure, and fostering positive self-talk (Craven et al., 2003).

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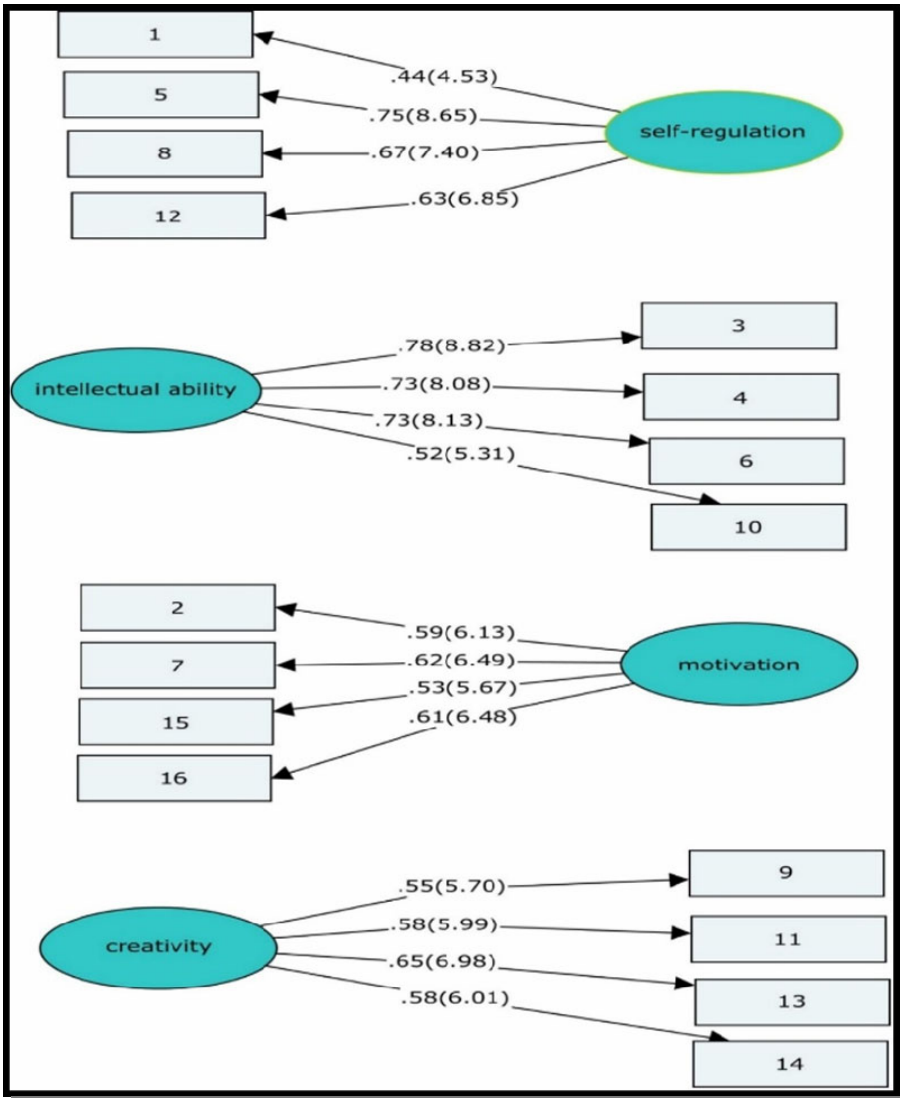
Appendix A

Figure 4

The schematic representation of the four dimensions of academic self-concept and the corresponding items

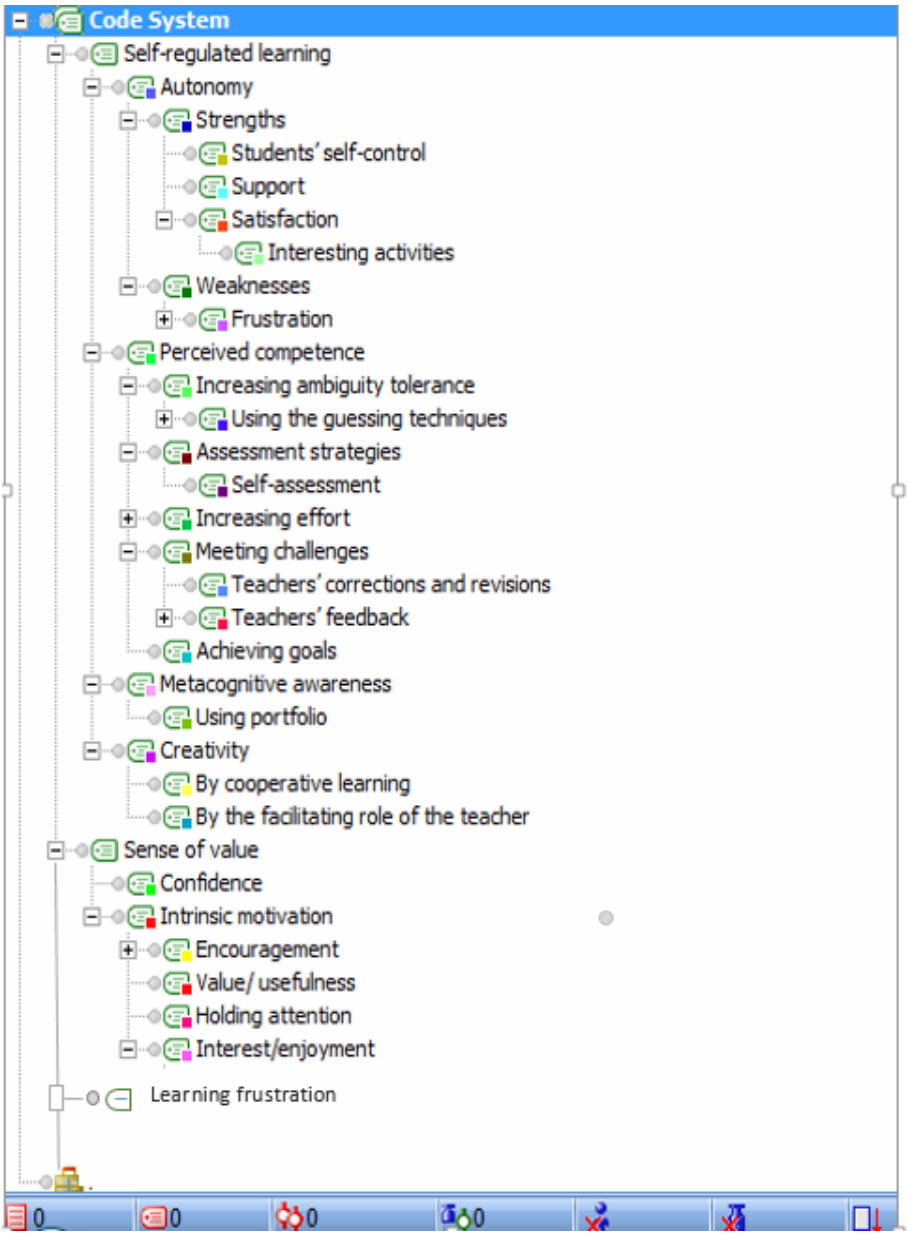


X^2/df= 2.97, RMSEA=. 079, GFI=.91, NFI=.90

Appendix B

Figure 5

The EFL learners Perceptions towards the RRT instruction: Themes and Subthemes



Appendix C

Figure 6

EFL learners' perceptions towards RRT instruction