# The Effect of Training and Task-Planning on the Complexity of Iranian Learners' Oral Speech

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The shift of emphasis away from written to oral skills has stimulated an incipient concern in second language research to investigate ways of helping second and foreign language learners achieve higher degrees of oral proficiency. Priority solely taken over accuracy, complexity, or fluency of speech might be justifiable with regard to the context in which learning takes place. Accuracy and complexity have been suggested as paramount concern in syntactic processing typical of instructional contexts. The purpose of the present study was to investigate the effect of a training program on the grammatical complexity of 114 English Major Students at Islamic Azad University-Tabriz Branch at three different planning levels. A 2x3 factorial design was employed with two levels of metacognitive training, trained and untrained, and three levels of pre-task planning, on-line task planning, and pre/on-line task planning. It was hypothesized that the trained participants would produce more complex speech than the untrained ones, and that various planners would produce speech with varying degrees of complexity. Yet, the findings revealed no significant difference in terms of grammatical complexity among the trained and untrained participants. The findings suggest proficiency level and learners' attitudes and goals as main factors influencing the complexity of oral speech.

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Learner autonomy and meaningful learning are two major principles highlighted in learner-centered educational systems that characterize the post-method era. In such systems, the ultimate goal is to develop autonomous learners who can think, act, communicate, and learn independently in relevant areas of their lives (Littlewood, 1996). Attempts to provide learners with appropriate strategies and opportunities to practise using them on the one hand, and to provide opportunities for meaningful learning, on the other, have spawned various forms of strategies-based instruction (SBI) and task-based instruction (TBLT). TBLT strives, at its best, to engage learners in meaningful tasks that improve language learning and use (Ellis, 2003; Nunan, 2005), whereas, SBI aspires to gradually stimulate learners to assume responsibility for their learning through strategy awareness and strategy use. These two trends highlight the significance of enhancing learners' oral production and training them to assume the responsibility for their learning in the process of second language learning.

#### **Oral Production**

The advent of CLT in the 1970s revolutionized language teaching by indicating the significance of communicative classroom activities in helping students acquire oral proficiency in the target language. Despite the facilitative role of oral production in the process of language learning, it is normally quite difficult to engage learners in speaking activates. Three models have been proposed to explicate the role of oral production in the process of language learning, as well as the cause of the plight oral production usually creates for language learners. The significance of oral production might play in language learning (Levelt, 1989; Skehan, 1998; Swain 1985).

Levelt (1989) has related the difficulty to the way language

is produced. According to Levelt (1989), three hierarchically organized processing mechanisms are involved in speech production: conceptualization, formulation, and articulation. Conceptualization refers to the macro-planning and microplanning of the intended message. Through macro-planning, the speaker establishes a communicative goal, breaks it down into a series of sub-goals, and retrieves the information required for realizing them. During micro-planning, however, the propositional shape of the message is assigned in accordance with the speaker's information perspective. Formulation involves selection of appropriate phonological, grammatical, and lexical features of the message and mapping them on to the preverbal message, and articulation comprises actual speech. It should, however, be borne in mind that speech processing is incremental in nature and all three mechanisms run in parallel. According to this model, language learners commonly feel quite reluctant to produce language because they suffer from restrictions imposed by their limited processing capacity. While struggling to produce speech, learners need to go through the three stages simultaneously. Limitations in their processing capacity, nevertheless, are likely to force them to focus attention on one aspect of production, which may, in turn, lead to trade-off effects between accuracy, complexity, and fluency.

Skehan (1998) attributes speech processing to mental representations of the knowledge of L2 and provides an account of accuracy, complexity, and fluency of oral production in terms of two distinct knowledge systems. Learners, as Skehan (1998) propounds, construct a rule-based system and an exemplar-based system which are drawn on during speech production. The exemplar-based system comprises un-analyzable chunks that have been learned and processed as wholes. This system enables the learner to have quick and easy access to ready-made exemplars, or formulaic speech as Ellis (1994) refers to them, during the formulation stage of speech processing. Since these exemplars are accessed as wholes, they require minimal processing capacity and would have a bearing on the fluency of learners' speech (Logan, 1988). The rule-based system, by contrast, is drawn on when

speakers fail to utilize the exemplar-based system due to the complicated nature of the intended proposition or its novelty. In such instances, the store of generative rules would help the speaker achieve higher degrees of accuracy, complexity, and effectiveness.

Skehan (1998) specifies six functions for production: 1) input generating 2) syntactic processing 3) testing out hypotheses about the target grammar 4) automatizing existing knowledge 5) providing opportunities for learners to develop discourse skills and 6) helping learners to develop a personal voice. The difficulty of production is more intense when language learners have to rely merely on the rule-based system, and is alleviated when the exemplar-based system is enriched through communicative exposure and engagement in oral production.

In addition to cognitive accounts of how production directly impacts language learning, Swain (1985) underscores the indirect contributions made by learners' output to language acquisition. According to Swain (1985), production contributes to language acquisition through noticing the gap, practice opportunities it provides for hypotheses testing, as well as controlling the linguistic knowledge through reflection on output and syntactic processing. Noticing the gap function of output is compatible with chaos complexity theory and is quite understandable with regard to nonlinearity of the learning process. It is proposed that during speech production learners find out their communicative problems and realize deficiencies in their knowledge of the L2 (Swain, 1985). Language learning is a nonlinear process in which the effect is disproportionate to the cause: a simple trigger, one which occurs all the time, might be enough on any given occasion to bring about a great convulsion in the system (Larsen-Freeman, 1997). From this perspective, recognition of communicative problems is likely to trigger cognitive processes that consolidate speaker's existing knowledge and which, in turn, may stimulate the process of language acquisition (Anderson, 2000; Bialystok, 1982, 1990; Skehan, 1998).

Despite the invaluable contributions made by oral production to language learning, the major challenge for many language teachers is to engage learners in oral communicative activities of various types. Hence, a hotly debated issue in language pedagogy has long centered on how attention can be profitably channeled through the instructional choices that are made to aid learners avoid cognitive overload and produce speech. A number of proposals have been made as to how attentional capacity can be aided through task design (Fotos & Ellis, 1991), pre-task and posttask activities (Doughty, 1991), consciousness-raising activities (Willis, 1996), and task repetition (Bygate, 1999) and taskplanning (Ellis, 1987, 2003; Foster & Skehan, 1996; Nunan, 2005; Schmidt, 2001; Skehan & Foster, 1999; Yuan & Ellis, 2003). The bulk of research in task planning, which is a metacognitive strategy, embodies the incipient concern in second language acquisition research to explore ways of integrating task-based and strategies-based approaches to prolifically focus attention at various stages of speech production and thereby to foster various features of oral speech.

A source of evidence supporting a task-based approach to strategic investment comes from the socio-cultural viewpoint according to which higher forms of mental activity are mediated.

Lantolf (2000) suggests that mediation in second language learning involves mediation by others in social interaction, mediation by self through private speech, and mediation by such artifacts as tasks. Mediation may occur externally through assistance from an expert or a more knowledgeable partner, e.g., a teacher, or internally by using one's own resources to achieve control over a function. From this standpoint, a case can be made for the integration of task-based instruction (TBI) and strategiesbased instruction (SBI) on the grounds that a task-based approach to SBI will promote learner autonomy as well as meaningful learning. External mediation occurs through the training period when pedagogic tasks are used to involve learners in communicative activities and reflection on the learning process. This reflective process can gradually give way to internal mediation when learners become implicitly aware of available cognitive resources at their disposal, gain control over the content and the form of tasks, and thereby over stages of speech production.

## Learner Training

Learner autonomy requires learner's involvement in planning, monitoring, and evaluating his learning (Nunan & Lamb, 2001; Wenden, 2002), and as Dickinson and Carver (1980, cited in Wenden, 2002) claim, although all language learners possess the potential for autonomous learning, an insufficient awareness of effective strategies may stand in the way of fulfilling this potential. Learner training programs of different types are, in fact, proposals to raise learners' awareness of various strategies at their disposal. Ellis and Sinclair (1989) identify two assumptions underlying research into learner training:

- 1. Individuals learn in different ways and may use a variety of learning strategies at different times depending on a range of variables.
- 2. The more informed learners are about language and learning the more effective they will be at managing their own learning. (p.2)

The first principle led to a vast body of studies into the very nature of learner strategies (Chamot & O'Malley, 1987; O'Malley & Chamot, 1990; Oxford, 1985, 1990). The second principle, yet, generated what has come to be known as strategies-based instruction (SBI) which has received attention mainly due to the problem-oriented nature of various learning strategies and their utility in enhancing learner autonomy. The effective control of strategies, nonetheless, entails metacognitive skills and strategies which can aid the process of language learning even in absence of sufficient opportunities for the use of communicative and cognitive strategies.

The need for metacognitive training is based on the view of language learner as an active processor of information. "The learner is capable of controlling his learning, the learning process, and the particular learning task by using various metacognitive strategies which provide a way for learners to coordinate their own learning processes" (Oxford, 1990, p. 136) and are significant owing to the executive function they serve in the process of learning (Nam & Oxford, 1998). Oxford (1990) defines metacognition as 'beyond, and besides', and, subsequently, metacognitive strategies (MCSs) as: "actions which go beyond purely cognitive devices, and which provide a way for learners to coordinate their own learning processes" (p. 136). Wenden (1987) defines metacognition as the process underlying the efficient use of strategies and the essence of intelligent activity. Nam and Oxford (1998) underscore the executive function of metacognitive strategies which involve "self-regulation of learning through planning, organizing, monitoring and evaluating" (Nam & Oxford, 1998).

Three main instructional frameworks have been designed to raise learner awareness about strategy use, to give learners opportunities to practice the strategies that are being taught, and to help them understand how to use the strategies in new learning contexts, respectively (Pearson & Dole, 1987; Oxford, R. L. Crookall, D., Lavine, R. Z., Nyikos, M., & Sutter, W., 1990; Chamot & O'Malley, 1994). Pearson and Dole's model (1987) is more traditional in that it resembles the Presentation, Practice, Production (three Ps) approach to language teaching. The second framework (Oxford et al., 1990) advocates a less explicit and more learner-cantered approach to strategic training. In addition to strategy awareness, it includes some metacognitive strategies, e.g., self-evaluation and self-monitoring of language performance. The third framework (Chamot and O'Malley, 1994) is more processoriented and is especially useful after learners have already had practice applying a broad range of strategies in a variety of contexts.

Wenden (1995, 2002) advocates a task-based approach to learner training in which learners learn to plan, monitor, and evaluate their learning related to a particular target task, and also to use cognitive strategies specific to that task. Tasks gain strategies invoking values in that they invok the desired strategies, which are necessary for the successful completion of tasks. Hence, it becomes possible to embed various strategies into the language tasks that are used as part of the teaching and learning materials. Inclusion of strategies that are congruent with course objectives provides for contextualized strategy practice and serves language development, as well as learner autonomy. O'Malley and Chamot (1990) propose three ways of achieving this goal:

- Teachers may start with the established course materials and then determine which strategies might be inserted.
- They may start with a set of strategies that they wish to focus on and design activities around them.
- They may insert strategies spontaneously into the lessons whenever it seems appropriate.

They also suggest that a hypothetical procedure in a taskbased and knowledge-based syllabus would proceed as follows:

- Needs identification to determine how much knowledge of strategies the given learners already have.
- Organizing tasks according to the information collected.
- Raising learners' awareness of strategic investment explicitly before task performance.
- Raising learners' task knowledge explicitly.
- Providing learners' with opportunities to practice strategies by performing different tasks and personalizing knowledge of strategies by evaluating various strategies with reference to specific tasks and the learner's learning style. This evaluative stage prepares them to transfer the use of these strategies to other contexts.

Statement of the Problem

No previous task-planning inquiry has explored the possibility of improving learners' capacity to plan through metacognitive training. The present inquiry, thus, attempted to explore the possibility of fostering task planning through a taskbased metacognitive training program. The researchers applied a task-based approach to metacognitive training based on the hypothesis that incorporation of strategy training activities into everyday classroom would gradually enable the participants to manage their task-based performance, and thereby to produce more complex speech. Based on previous research findings two research questions were formulated in this study:

- 1. Does metacognitive training enhance the complexity of oral speech?
- 2. Are there any differences in the complexity of speech produced by different planners?

### Method

#### **Participants**

A sample of 120 female and male Iranian EFL students in six intact classes at Islamic Azad University-Tabriz Branch took part in the pre-test to form the research sample. The participants' initial homogeneity in English proficiency was assessed through a standardized test entitled "Preliminary English Test" (PET). After the results of an ANOVA test revealed no significant differences across the six groups (F = .31, p =.90) The sample was randomly assigned as trained and untrained groups, and within each group various planners were further randomly specified. However, six participants dropped the course before the post-test, or did not attend the next course. As a result, the total number of participants dropped to 114 in the post-test.

#### The Oral Tasks

Two different narrative tasks were used as the pre-test and the post-test. The participants were required to orally produce at least four sentences describing each picture. Both tasks were administered as classroom activities, the pre-task at the onset of the study, and the post test during the second week of the next semester. The time interval was deliberately expanded to estimate the more long-term impact of the training on the complexity of the participants' oral speech.

#### Procedure

The metacognitive training program might be operationally defined as the treatment designed by the researchers for the experimental groups. It was a topic-based listening and speaking course inspired and informed by the approach offered by Oxford *et al.*,1990, O'Malley and Chamot's model (1990), Pearson and Dole's model (1987), Nunan's topic-based and task-based syllabus (2005), and Ellis's focused task-based proposal (2003). Each session proceeded through pre-listening, listening, and post-listening activities. The post-listening activities functioned as the pre-speaking stage and were followed by speaking and post speaking activities.

The training program lasted for fifteen weeks and centered on a three-group classification of metacognitive strategies: 1) centering learning, 2) arranging and planning learning, 3) evaluating learning (Oxford, 1990, pp: 152-163). Centering learning strategies included overviewing and linking with already known material and paying attention. They were introduced and practiced during the pre-task phase of teaching. Arranging and planning learning strategies, on the other hand, comprised finding out about language learning and organizing learning, which were introduced the first session and were practiced every session during different activities in the task-proper phase of teaching; setting goals and objectives, identifying the purpose, and planning for a language task, and seeking practice opportunities were all presented and practiced during the task-proper phase as well. The third group of strategies included self-monitoring and selfevaluation. As the title suggests, the third group of strategies were introduced in the post-task phase of teaching and were practiced and implemented as assignments.

## Planning Levels

Levels of planning represent three different ways in which

the planning time was utilized by the participants, e.g. pre-task planning, on-line planning, pre/on-line planning.

Under pre-task planning conditions, ten minutes was allocated for the participants to take notes and plan both the content and the language of the narrative tasks. The participants were required to make at least four sentences for each picture. Then, they were required to put their notes away, and to narrate, monitor, and tape record the story in six minutes.

Under on-line task planning conditions, two minutes was allocated for the participants to take a quick look at the picture strip and get an overall idea. Then, the participants were required to make four sentences for each picture without taking any notes. They were notified to stop the tape whenever they needed to pause and think about what to say or how to say something. They were given fourteen minutes to narrate and tape-record the story while monitoring their performance.

Under pre/on-line task planning conditions, the participants planned the content and the language of their story during the initial eight minutes of pre-task planning time. Meanwhile, they were allowed to take notes. The other eight-minute planning time was allocated to monitoring, narrating, and tape-recording the story after they put their notes away.

## **Operationalization of Complexity**

There are various types of complexity, e.g. task complexity, cognitive complexity, and grammatical complexity. This study was focused on measuring grammatical complexity of the participants' oral speech. Skehan (1996) defines grammatical complexity as the use of elaborate interlanguage structures that are "cutting edge" and structures. To quantify complexity, all subordinated clauses per communication unit (c-unit) were calculated and were divided by the number of c-units to yield at least a minimum figure of 1 (Foster & Skehan, 1999).

Scoring

Two independent experienced raters scored the transcript data for accuracy and complexity indices. The inter-rater reliability of the pre-test and post-test scores was computed through "a coefficient alpha". The average scores were used as a basis for further statistical analysis after the inter-rater reliability indices were acceptably high as follows:

The pretest: Complexity (.89)

The post-test: Complexity (.91)

Data analysis

The statistical analyses and procedures utilized in the study included two independent samples t-tests and a repeated measures ANOVA. The alpha for achieving statistical significance was set at .05.

#### Results

### The Language Proficiency Pre-test

A sixty-item Preliminary English Test (PET) was administered to test the initial homogeneity of the six groups in listening and reading. Scores were submitted to a one-way ANOVA, the results of which showed no meaningful difference among the groups as far as the participants' general proficiency in reading and listening was concerned, (F = .312, p = .905).

#### The Oral Proficiency Pre-test

To test the initial homogeneity of the participants' oral proficiency, the researchers conducted an oral pre-test and subjected the data to an independent samples t-test. The results of the t-test, as presented in Table one, revealed that the groups were not significantly different as far as the complexity of the pre-test task-based oral performances was concerned, (complexity: t (118) = .66, p = .506).

Table 1

Descriptive statistics and the independent samples t-test for the oral pre-test

| Group                               | N  | Mean   | Std.<br>Deviation | t    | df. | р    |
|-------------------------------------|----|--------|-------------------|------|-----|------|
| Pre-test<br>Complexity<br>Trained   | 60 | 1.3858 | .27415            | .660 | 118 | .506 |
| Pre-test<br>Complexity<br>Untrained | 60 | 1.3543 | .24212            |      |     |      |

## Strategy Inventory for Language Learning

Further, the researchers administered the metacognitive section of Oxford's Strategy Inventory for Language Learning (1985) and estimated the frequency with which the subjects used the six metacognitive strategies. Comparison of the averages so obtained with the standard averages for each strategy offered by Oxford (1985), as presented in Table two, revealed that the highest average for the participants' use of metacognitive strategies was 2.45. That is to say, the selected metacognitive strategies were among the least frequently deployed strategies by the participants. In other words, the participants were homogeneous in terms of their use of metacognitive strategies as well. Further research is, of course, required to bear on the very nature of this inconsistent use.

| Descriptive statistics for metacognitive strategy use |     |         |         |      |                |  |  |
|-------------------------------------------------------|-----|---------|---------|------|----------------|--|--|
| Items                                                 | N   | Minimum | Maximum | Mean | Std. Deviation |  |  |
| 30                                                    | 114 | 1.80    | 2.20    | 1.97 | .140           |  |  |
| 31                                                    | 114 | 1.80    | 2.25    | 2.02 | .169           |  |  |
| 32                                                    | 114 | 1.90    | 2.75    | 2.23 | .296           |  |  |
| 33                                                    | 114 | 2.00    | 2.20    | 2.13 | .075           |  |  |
| 34                                                    | 114 | 1.70    | 2.35    | 2.02 | .258           |  |  |
| 35                                                    | 114 | 1.90    | 2.15    | 2.02 | .108           |  |  |
| 36                                                    | 114 | 2.10    | 2.45    | 2.25 | .126           |  |  |
| 37                                                    | 114 | 1.70    | 2.05    | 1.83 | .136           |  |  |
| 38                                                    | 114 | 1.95    | 2.40    | 2.12 | .160           |  |  |

Table 2Descriptive statistics for metacognitive strategy use

### The Oral Post-test

To estimate the influence of the metacognitive training on the complexity of the participants' oral post-test, the researchers submitted the data obtained from the oral post-test to an independent samples t-test. Table 3 illustrates that the difference between complexity measures obtained from the trained and untrained planners did not reach significance level [t (112) =.88, p=.38].

Table 3

Descriptive statistics and the independent samples t-test for the oral post-test

| Group                                 | N  | Mean | Std.<br>Deviation | t   | df. | р   |
|---------------------------------------|----|------|-------------------|-----|-----|-----|
| Post -test<br>Complexity<br>Trained   | 58 | 1.37 | .212              | .88 | 112 | 29  |
| Post -test<br>Complexity<br>Untrained | 56 | 1.34 | .214              | .00 | 112 | .38 |

Further, a repeated measures two-way ANOVA was run on the data to compare the pre-test and post-test results, and estimate the effect of both metacognitive training and levels of planning on the complexity of the participants' oral performance. The descriptive statistics are presented in Table 4. Various task planners are abbreviated as follows: Pre-task planners= PTP, Online task planners=OLP, and Pre/on-line task planners= POLP.

#### Table 4

| <b>A</b>               | (eemprenny) | 5    | <u>. p. e, p</u>  | · /      |
|------------------------|-------------|------|-------------------|----------|
| Metacognitive Training | Planning    | Mean | Std.<br>Deviation | Ν        |
| PRE-COM 1.00 case      | 1.00 PTP    | 1.42 | .25               | 18       |
| TRE-COM 1.00 case      | 2.00 OLP    | 1.29 | .16               | 20       |
|                        | 3.00 POLP   | 1.45 | .36               | 20       |
|                        | Total       | 1.45 | .30               | 20<br>58 |
|                        |             |      |                   |          |
| PRE-COM 2.00 control   | 1.00 PTP    | 1.27 | .22               | 18       |
|                        | 2.00 OLP    | 1.38 | .22               | 18       |
|                        | 3.00 POLP   | 1.41 | .27               | 20       |
|                        | Total       | 1.35 | .24               | 56       |
| Total                  | 1.00 PTP    | 1.35 | .24               | 36       |
|                        | 2.00 OLP    | 1.33 | .20               | 38       |
|                        | 3.00 POLP   | 1.38 | .32               | 40       |
|                        | Total       | 1.37 | .26               | 114      |
| PO. COM 1.00 case      | 1.00 PTP    | 1.34 | .20               | 18       |
|                        | 2.00 OLP    | 1.40 | .20               | 20       |
|                        | 3.00 POLP   | 1.38 | .23               | 20       |
|                        | Total       | 1.37 | .21               | 58       |
| PO. COM 2.00 control   | 1.00 PTP    | 1.33 | .19               | 18       |
|                        | 2.00 OLP    | 1.34 | .23               | 18       |
|                        | 3.00 POLP   | 1.34 | .22               | 20       |
|                        | Total       | 1.34 | .21               | 56       |
| Total                  | 1.00 PTP    | 1.34 | .19               | 36       |
|                        | 2.00 OLP    | 1.37 | .21               | 38       |
|                        | 3.00 POLP   | 1.36 | .22               | 40       |
|                        | Total       | 1.36 | .21               | 114      |

Descriptive statistics (complexity of the oral pre/post-test)

As shown in the table, the pre-test averages for various case planners included: PTP = 1.42, OLP = 1.29, and POLP = 1.45, whereas in the control group, the pre-test averages were: PTP= 1.27, OLP = 1.38, and POLP=1.41.

On the post-test, however, the averages for the trained PTP, OLP and POLP planners had changed to PTP=1.34, OLP=1.40, and POLP= 1.38, whereas the post-test averages for the

counterpart untrained planners were PTP=1.33, OLP = 1.34, POLP = 1.34. As indicated, a slight increase is evident only among the trained OLP planners (from 1.3872 to 1.4035), as well as the untrained PTP planners (from 1.2717 to 1.3361).

To determine whether the differences in complexity of the two oral performances on the pre-test and post-test were significant or not, the researchers subjected the complexity indices to a repeated measures ANOVA test. The results of the analysis are presented in Table 5.

Table 5

Repeated measures two-way ANOVA between groups' results for the effects of metacognitive training on complexity

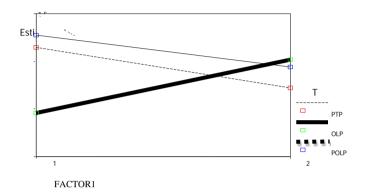
| Source<br>FACTOR 1    |        | Type III<br>Sum of<br>Squares | df. | Mean<br>Square | F     | Sig. |
|-----------------------|--------|-------------------------------|-----|----------------|-------|------|
| FACTOR 1              | Linear | .01                           | 1   | .01            | .182  | .670 |
| FACTOR 1* Training Li | inear  | 4.09                          | 1   | .06            | .000  | .993 |
| FACTOR 1 *Planning L  | inear  | .10                           | 2   | .05            | .942  | .393 |
| FACTOR 1              | Linear | .20                           | 2   | .10            | 1.895 | .155 |
| ERROR (FACTRO1) L     | Linear | 5.89                          | 108 | .05            |       |      |

As indicated in Table 5, the changes of complexity from the pre-test to the post-test were not statistically significant, (F=182, p = .670). None of the interactive effects of the first independent variable, metacognitive training (F=.000, p=.993), of the second variable, levels of planning (F=.942, p=.393), and that of the metacognitive training and levels of planning (F=1.895, p=.155) on the complexity of task-based oral performance reached significant level. To restate, neither the training program nor the planning levels employed seemed to have significantly influenced complexity of the participants' oral speech.

Figures 1 and 2 illustrate the changes in the complexity measures from the pre-test to the post-test in the experimental and

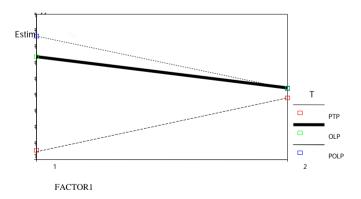
control groups respectively. The only cases of apparent improvement are observable in the performance of the trained OLP planners and untrained PTP planners from the pre-test to the posttest.

Estimated Marginal Means of MEASURE\_1



*Figure 1*. Effects of metacognitive training on the complexity of task-based oral performance (Case)

Estimated Marginal Means of MEASURE\_1



*Figure 2.* Effects of metacognitive training on the complexity of task-based oral performance (Control)

## Discussion

The first research question addressed the effect of metacognitive training on the complexity of oral performance. According to the findings, the changes in complexity measures were not statistically significant between the trained and the untrained planners, (t=.088, p = .38).

Question two, on the other hand, addressed the effect of the second independent variable, planning levels, on the complexity of the trained participants' speech. The research findings indicated no significant difference among various trained planners in terms of the complexity of speech. That is to say, levels of planning did not have a bearing on the complexity of oral speech.

The findings emerging from this study are in line with the findings of Skehan and Foster (1997) who found that learners achieved higher degrees of accuracy as a result of pre-task planning only at the expense of complexity on narrative task types. The findings, however, run counter to the findings of Crookes (1989), Foster and Skehan (1996), Yuan and Ellis (2003), and Birjandi and Ahangari (2008).

Crookes (1989) investigated the effect of planning opportunity on syntactic complexity in two monologic production tasks performed by two groups of 20 Japanese learners of English as a second language. Using several measures of complexity, e.g. the length of utterance, the number of S-nodes per utterance, and long subordinated clauses, he found that planning opportunity resulted in significantly more complex language in ten minutes of planning.

Foster and Skehan (1996) used narrative tasks types to explore the impact of detailed and undetailed planning conditions particularly when, through guided planning, the learners were given metacognitive advice on how to attend to syntax, lexis, content, and organization. Foster and Skehan (1996) found higher degrees of subordination among detailed planners than undetailed planners who, in turn, achieved higher levels of complexity than non-planners.

Yuan and Elli (2003) also reported a positive influence for

pre-task planning, and on-line planning, on complexity. These studies have confirmed the enhancing role of planning on the complexity of oral production, and have ascertained this role to a reasonable length of pre-task planning, as well as receiving guidance in how to plan. In Iranian EFL context, Birjandi and Ahangari (2008) reported complexity as the only feature of oral production which was affected by repetition and task type. They explained the finding in terms of Skehan's (1998) dual processing theory according to which lexical items are more quickly and easily accessible than rule-based systems. The second performance of the same task, they concluded, affected the participants' lexical production more than accuracy.

The findings emerging from this study might be justified with regard to the goals of language learning (Skehan, 1996). Complex performance entails the psycholinguistic process of restructuring–a process by which the interlanguage system becomes more elaborate, structured, and complex (McLaughlin, 1990). Yet, complexity does not develop unintentionally. Learners need to set the development of complexity as the goal of language learning and to strive to achieve this goal. Nonetheless, a common experience of many language teachers and learners is to witness the failure of learners in pursuing this goal owing to the lack of interest, reluctance to take risk and preference to use less elaborate interlanguage systems, or unduly pressure to communicate before adequate time is provided for restructuring.

All the three factors are evident in Iranian learners. Culturally, most Iranian bilinguals, are reluctant to take part in class conversations in English. On occasions, when they feel obliged to speak English, they avoid elaborate language. This tendency seems to block the development of interlanguage and to postpone restructuring at least at pre-intermediate and intermediate levels of proficiency. Consequently, their speech is marked with excessive simplicity and avoidance of elaborate forms.

#### Conclusion

Although the results emerging from the present study did not indicate any significant effect from the training program on complexity of the participants' oral speech, the data analysis of the Strategies Inventory for Language Learning (Oxford, 1985) ascertained that metacognitive strategies were among the least frequently deployed strategies. Iranian EFL learners need to be introduced to metacognitive strategies in the exposure-limited context in which they are learning English as a foreign language. The goal of strategy training, according to Cohen (1998), is to empower learners and allow them to take control of the learning. This control can be particularly exercised through metacognitive strategies. One of the most fruitful outcomes of the current study, thus, was the identification of learners' need for metacognitive training to enhance their task-based performance and general learning. This need which otherwise might not have been noticed either by the teacher or by the learner might be addressed officially by teacher educators and materials developers or by any wellinformed teacher who recognizes the difference that metacognition can make to the process of language learning. It is hoped that the experience shared in this study will inspire further research and lead to closer partnership between teachers and researchers. on the one hand, and educators and researchers, on the other, as far as a task-based approach to metacognitive training is concerned.

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