

The Effects of Task Repetition and Planning Conditions on CAF In L2 English Speech Production: A Case Study

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I. Introduction

Researching proceduralization of explicit knowledge as one desirable outcome of L2 learning was on the grounds of accuracy and fluency (Michel, 2007). However, learners may be forward-looking to automatization, where speed and error rate are ameliorated (Dekeyser, 2017). Because accuracy and fluency are inadequate to reveal the degree of automatization, the notion of complexity is introduced (Housen and Kuiken, 2009). This paper aims to fill a gap in the literature by examining how the speech production of an L2-English learner was characterized under the CAF construct and demonstrating how task repetition and planning conditions impact CAF. The paper first explains the relevant literature review, then provides information on the participant, data collection and analysis, and the tested hypotheses.

II. Literature Review

CAF and operational measures

Complexity refers to “size, elaborateness, richness, and diversity of the learner’s linguistic L2 system” from the developmental, cognitive and linguistic perspectives (Michel, 2007, p.50). Developmental complexity is portrayed through the order of internalizing linguistic structures in L2 acquisition (Pallotti, 2015) while the cognitive view reflects learners’ perception of how challenging a linguistic item is through processing and acquisition (Michel, 2007). The linguistic view presents itself in terms of lexical and grammatical forms (Housen et al., 2012). Measures of lexical complexity encompass “diversity (type-token ratio), sophistication (the level of word frequency), density (ratio of lexical words per function words)” (Michel, 2007, p.53) while grammatical complexity is measured through “length (number of words per clause), variation (number of different morphemes), interdependence (coordinated versus sub-ordinated clauses)” (ibid). Given the too small scale to explore how the participant developed linguistic structures and cognitively processed language items, the paper only examined linguistic complexity, inheriting the Michel’s (2017) measures.

Accuracy is the extent to which language production adheres to target language norms (Yuan and Ellis, 2003). A consistent way of gauging this criterion has been unachievable. Polio (1997) suggests “holistic scales (a global impression of accuracy)” (Michel, 2007, p.55), which was argued to be vague and lack thoroughness in this case. Specific measures address how much language products fulfill “the target of a pedagogic intervention” (ibid); however, this paper was not driven by any teaching objective on which to assess the participant. As the spoken performance was described from a randomized learner, gauging accuracy was carried out as followed. Global measures were employed to quantify “error-free clauses” (ibid). Errors were also investigated, categorized into lexical and grammatical manifestations, and simultaneously into three different degrees: “first degree (minor mistakes)” (e.g.: verb conjugation), “second degree (more severe mistakes, e.g.: word order), third degree (mistakes that make an utterance nearly incomprehensible, e.g.: combination of wrong word choice, word order or omissions)” (ibid). Although degree-based error classification may be subjective (ibid), the researcher’s two-year teaching experience in error recognition for learner feedback could minimize that possibility.

Fluency refers to the capacity to manage discourse “without undue pausing or hesitation” (Skehan, 1996, p.51). Measures of fluency involve “speed or rate (i.e.: number of words per minute); silence or breakdown measured by number, duration and location of pauses; repair (false starts, repetitions and self-repairs)” (Michel, 2007, p.56). This aspect can be determined by a speaker as being slow or fast (de Jong, et al., 2015). In the paper, fluency was measured by (a) the number of words in the first 30-second excerpt; (b) pauses and hesitations in terms of number, duration and location; (c) repetitions and (d) repairs. The individualized speech pace was excluded from the paper’s parameter.

Task planning and task repetition

Measuring CAF has not been a stand-alone process, but viewed under other variables, typically task planning and task repetition (Michel, 2007). Task planning includes pre-task planning “before learners perform a task” and within-task planning which “occurs while learners are performing a task” (Ellis, 2009a, p.474). Pre-task planning consists of (a) strategic planning on prepositional content and how it is conveyed, (b) rehearsal prior to task performance (ibid). Within-task planning can either be pressured in time allotment for performance or unpressured without limits to performing time (ibid). Task repetition refers to executing either “the whole tasks or parts of a task” (Bygate and Samuda, 2005, p.43).

These task conditions have demonstrated varied effects on the CAF of L2 speech production. For example, strategic pre-task planning has been found to facilitate fluency and complexity (Gilbert, 2007; Kawauchi, 2005), while within-task planning aided accuracy (Yuan & Ellis, 2003). Task repetition has shown benefits for all three CAF dimensions (Bygate, 2001; Lynch & Maclean, 2000). The present study examines the interplay between no pre-task planning, unpressured within-task planning, and task repetition on an L2 English learner's speech performance.

III. Methodology

Aim and Participant

The paper aimed to (a) scrutinize L2-English performances on CAF, (b) demonstrate how the CAF construct is impacted by task repetition alongside other variables. The participant was John (a pseudonym), studying English since primary school. As a freshman in Data Science and Business Analytics at a Vietnam-based university, he took the IELTS test in April 2020 and scored 5.5 for speaking.

Data collection

The participant performed narrative speaking about the time when he felt happy. Before the performance, no time was allocated to strategic planning, which was also devoid of form-based or meaning-based assistance and rehearsal. He spoke in roughly two minutes without time limit. After that, he repeated the whole task instantly and still under unpressured on-line planning.

Data analysis

The participant gave consent to have his performances recorded for analysis. The two recordings were transcribed into texts with annotations (see Appendix A). The texts were processed by Vocabprofile (www.lexutor.ca) to generate quantitative data about lexical complexity while the patterns of grammatical complexity, accuracy and fluency were identified by the researcher. All the data were placed in tables (see Appendix B) to draw a comparison on CAF between two speaking attempts.

Hypotheses

Derived from the performances' conditions, two hypotheses were as followed. Foster and Skehan (1999) found no pre-task planning failed to generate semantically and grammatically complex language. According to Levelt (1989), without time limit, it is possible to buy time to focus on form and construct more accurate sentences during formulation before articulation. However, fluency is on the line with unpressured on-line planning because “conscious attention to form” (i.e.: accuracy) “competes with conscious attention to meaning” (i.e.: fluency) (Van Patten, 1990, p.269). Therefore, the first hypothesis is that the first performance's conditions facilitate accuracy while it is not the case for complexity and fluency.

As for Bygate (2001), “part of the work of conceptualization, formulation and articulation carried out on the first occasion is kept in the learners' memory store and can be reused on the second occasion” (p.29), which is linked to enhanced complexity and fluency. Although the reiterating effect of task repetition on oral accuracy remains contentious (Ahmadian and Tavakoli, 2010), familiarity with the content from the first attempt may translate into more attentional resources on linguistic form (Lynch and Maclean, 2000). Therefore, the second hypothesis is that task repetition improves CAF.

Based on previous findings on task planning and repetition effects on CAF, two hypotheses were formulated for this study:

Hypothesis 1: Given the lack of pre-task planning, the first performance will demonstrate higher accuracy due to unpressured within-task planning (Yuan & Ellis, 2003), but lower complexity and fluency (Foster & Skehan, 1999; Kawauchi, 2005).

Hypothesis 2: Task repetition will lead to improvements in all CAF dimensions - complexity, accuracy and fluency (Bygate, 2001; Lynch & Maclean, 2000).

IV. Findings and Discussion

Regarding the first performance, simplistic lexis was displayed (i.e.: 86.05% of types in the first frequency level), which might result from no strategic planning that could have assured lexical richness (Gilabert, 2007). However, not many words were repeated (i.e.: type-token ratio at 0.66%). Content words also outnumbered function words, with lexical density at 0.51%. In this light, while the lack of pre-task planning did constrain lexical sophistication as expected, its impact on lexical diversity and density was limited. Despite lexical simplicity, this was justifiable for the participant as a low-proficiency L2-English learner with limited lexical repertoires. Grammatical complexity was not adversely affected. More subordinated clauses were produced than coordinated clauses (3:2) as an indicator of complexity in spoken discourse (Leech, 2000); clauses containing 8, 10, 11 words surpassed those with 3 and 5 words, alongside the use of both inflectional and derivational morphemes with relative variations –s, –ing, –ese, –ly. On balance, complexity level was adequate, challenging Foster and Skehan's (1999) argument that no pre-task planning fails to generate complex language.

In terms of accuracy, the first performance was not satisfactory. Of all 8 recorded clauses, only 3 were error-free. There were 7 grammar first-degree errors, primarily relating to wrong verb conjugation in past simple intended for storytelling. The two third-degree errors included the target word "chance" mispronounced as "chain" and collocational rules violated with the phrase "reap the chance", potentially impeding comprehension. In this vein, the accuracy level did not meet expectations based on Levelt's (1989) claim that unpressured within-task planning aids accuracy. One possible reason was the participant's priority over complexity which was to the detriment of his accuracy.

With regards to fluency, 6 one-second pauses and hesitations were primarily intra-sentence for language processing, together with 4 repetitions where he showed the struggle to search for words. The data pinpointed negative effects on fluency. This was likely attributed to the lack of strategic planning (Kawauchi, 2005) and guided planning (Foster and Skehan, 1996) which could have been useful to fluency.

Taken together, Hypothesis 1 was partially supported. While fluency was negatively impacted as predicted, the lack of pre-task planning did not completely compromise complexity, and accuracy remained low despite the unpressured within-task planning condition.

However, on account of task repetition, complexity was bolstered. Regarding increased lexical complexity, besides reduced types of the first frequency list (83.33%) and increased types of the second and third frequency levels from 4.65% to 5.56% each, an additional word in the seventh frequency level "proficiency" improved lexical sophistication. Lexical items were more diverse, with tokens per type at a higher rate 0.74% despite the slightly lower lexical density at 0.49%. Greater grammatical complexity was evidenced by more clauses in total (10 compared with 8) and a rise in subordinated clauses to 4. Besides shared morphemes in both attempts –s, –ing, –ese, –ly, task repetition accommodated other new morphemes –ed, –or, –cy. On balance, task repetition was useful to complexity, as proved by Bygate (1999, 2001).

Fluency was remarkably ameliorated, with no repairs and more words uttered in 30 seconds than the first attempt (73 compared with 65). Fewer one-second pauses and hesitations at 3 were naturalistic for inter-sentence idea transitioning. It was familiarity in content that made task repetition, apart from boosting complexity, simultaneously enhance fluency (Bygate, 1999; Lynch and Maclean, 2000).

In terms of accuracy, given both speaking attempts devoid of second degree errors, total first-degree grammatical errors were reduced to 4; the third-degree pronunciation lexical error "chance" was self-corrected. That translated into error-free clauses significantly increasing to 8 as largely a testament to improved accuracy due to task repetition, which was grounded by Lynch and Maclean (2001). Despite the polarizing views about whether task repetition benefited accuracy (Bygate, 1996; Gass et al., 1999; Lynch and Maclean, 2000), the far-reaching effect of knowing what to talk about and building upon the previous content on complexity and fluency in this case was also proportional to that on accuracy as the participant had spare attentional resources during speech to be fed into ameliorating the quality of output. Therefore, the data confirmed Hypothesis 2, strengthening the idea that task repetition serves as a contributor to enhancing CAF (Ahmadian and Tavakoli, 2010).

V. Conclusion and Implications

This study found that for the L2-English learner examined, task repetition was conducive to development in all CAF dimensions, supporting Hypothesis 2. Meanwhile, in the first performance, undermined accuracy and fluency could be respectively traceable to the learner's emphasis on complexity and the absence of strategic guided pre-task planning, partially confirming Hypothesis 1.

The findings suggest some implications for L2 pedagogy. Given the benefits of strategic and guided planning to fulfilling complexity and fluency (Gilabert, 2007; Kawauchi, 2005; Foster and Skehan, 1996), further account can be taken into learners' planning of propositional content under teacher-assisted guidance for relevant grammar and lexis before learners perform a task. In this way, having been prepared for achieving complexity in

form and smooth flows of ideas, the attention could be partly consumed for reducing errors. After the in-class task performance, learners should be asked to repeat the task multiple times, and evaluate their corresponding performances to improve CAF as a whole.

Limitation

A lack of inter-rater reliability (Cohen’s kappa) in manual calculations might have concealed the possibility of inconsistency in data generation. Furthermore, without additional data gathering techniques as retrospective protocols or in-depth semi-structured interviews, the quantitative data were not interpreted by the participant’s behavior in the performances. It would be more comprehensive if more participants had been involved to obtain empirical evidence on the effects of pre-task planning.

APPENDIX A – ANNOTATED TRANSCRIPTIONS OF L2 SPEECH PERFORMANCES

Transcription 1

Well, I have lots of happy experience in my life, / **but** there’s one that \$**that** always *stick in my mind. / # That *is the special occasion / **when** I *win a # Japanese # \$Japanese speaking contest / **and** *^reap a golden !chance to travel * my dream # nation. / That is Japan. / # Well # frankly speaking, that was the first time / **that** I *have take @*participate in # \$in a huge \$huge contest.

Transcription 2

Well, I have lots of happy experience in my life, / **but** there’s one **that** always sticks in my mind. / # That was a special occasion / **when** I *win a Japanese speaking contest / **and** *^reap a golden chance to travel * my dream nation / **which** is Japan. / # Frankly speaking, that was the first time / **that** I participated in such a huge contest / **and** % there were also lots of competitors / **who** *have better language proficiency than me.

represents a one-second hesitation realized by “ah” or “uh”

% represents a second of pausing

* represents grammatical mistakes

^ represents lexical mistakes

! represents pronunciation mistake

@ represents repair

\$ represents repetition

that, when, which represent subordinated clauses

and, but represent coordinated clauses

APPENDIX B – DATA ON L2 SPEECH PERFORMANCES

Table 1: Lexical complexity

Transcription 1	Transcription 2
<p>Diversity of lexis Tokens (all words) – 65 Types (different words) – 43 Type-token ratio – 0.66%</p>	<p>Diversity of lexis Tokens (all words) – 73 Types (different words) – 54 Type-token ratio – 0.74%</p>
<p>Sophistication 86.05% of types belonging to the first frequency level 4.65% of types belonging to the second frequency level (<i>occasion, frankly</i>) 4.65% of types belonging to the third frequency level (<i>contest, participate</i>) 2.33% of types belonging to the sixth frequency level (<i>reap</i>)</p>	<p>Sophistication 83.33% of types belonging to the first frequency level 5.56% of types belonging to the second frequency level (<i>occasion, frankly, language</i>) 5.56% of types belonging to the third frequency level (<i>contest, participate, competitors</i>) 1.85% of types belonging to the sixth frequency level (<i>reap</i>) 1.85% of types belonging to the seventh frequency level (<i>proficiency</i>)</p>
<p>Density (0.51%) Content words – 33 Function words – 32</p>	<p>Density (0.49%) Content words – 36 Function words – 37</p>

Table 2: Grammatical complexity

Transcription 1				Transcription 2			
Number of words per clause	Number of clauses	Coordinated vs. subordinated clauses	Variation in morphemes	Number of words per clause	Number of clauses	Coordinated vs. subordinated clauses	Variation in morphemes
3	1	2:3 + coordinated clauses with <i>and, but</i> + subordinated clauses with <i>which, that, when</i>	<i>-s x1 – lots of</i> <i>-ing x1 – frankly speaking</i> (inflectional) <i>-ing x1 – speaking contest,</i> <i>-ese x1 – Japanese</i> <i>-ly x1 – frankly</i> (derivational)	3	1	3:4 + coordinated clause with <i>and</i> <i>x2, but</i> + subordinated clauses with <i>when, which, that, who</i>	<i>-s x2 – lots of and sticks</i> <i>-ing x1 – frankly speaking</i> (inflectional) <i>-ing x1 – speaking contest,</i> <i>-ese x1 – Japanese</i> <i>-ly x1 – frankly</i> <i>ed x1 – participated</i> <i>-or x1 – competitor</i> <i>-cy x1 – proficiency</i> (derivational)
5	1			5	1		
8	2			7	4		
10	2			8	1		
11	2			10	3		

Table 3: Accuracy

Transcription 1	Transcription 2
Error-free clauses / Total clauses: 3 / 8	Error-free clauses / Total clauses: 8 / 10
Degree-based errors 1st degree errors: 7 Grammatical mistakes (tense, preposition): 7 2nd degree errors: none 3rd degree errors: 2 Pronunciation mistakes: 1 (<i>chance</i> mistakenly pronounced as 'chain') Lexical mistakes: 1 (<i>reap a chance</i> – collocation)	Degree-based errors 1st degree errors: 4 Grammatical errors (tense, preposition): 4 2nd errors: none 3rd degree errors: 1 Lexical errors: 1 (<i>reap a chance</i> – collocation)

Table 4: Fluency

	Transcription 1	Transcription 2
Number of words per 30 seconds	65	73
One-second pauses and hesitations	6	3
Repair	1	0
Repetition	4	0

REFERENCES

- [1]. Ahmadian, M. J., Tavakoli, M. 2010. The effects of simultaneous use of careful online planning and task repetition on accuracy, complexity, and fluency in EFL learners' oral production. *Language Testing Research*, 15(1), pp.35-59.

- [2]. Bygate, M. 1996. Effect of task repetition: Appraising the development of second language learners, In: Willis, J. and Willis, D. eds. *Challenge and change in language teaching*. Oxford: Heinemann, pp.136-46.
- [3]. Bygate, M. 1999. Task as the context for the framing, re-framing and unframing of language. *System*, **27**(1), pp.33-48.
- [4]. Bygate, M. 2001. Effects of task repetition on the structure and control of oral language. In: Bygate, M., Skehan, P., and Swain, M. eds. *Researching pedagogic tasks, second language learning, teaching and testing*. Harlow: Longman, pp.23-48.
- [5]. Bygate, M. and Samuda, V. 2005. Integrative planning through the use of task repetition. In: R. Ellis. ed. *Planning and task performance in second language*. Amsterdam: John Benjamins, pp.37-74.
- [6]. DeKeyser, R. 2017. Knowledge and Skill in SLA. In: Shawn, L. and Masatoshi, S. eds. *The Routledge Handbook of Instructed Second Language Acquisition*. London: Routledge, pp.15-32.
- [7]. de Jong, N. H., Groenhout, R., Schoonen, R., and Hulstijn, J. H. 2015. Second language fluency: Speaking style or proficiency? Correcting measures of second language fluency for first language behavior. *Applied Psycholinguistics*, **36**(2), pp.223-243.
- [8]. Ellis, R. 2009a. The Differential Effects of Three Types of Task Planning on the Fluency, Complexity, and Accuracy in L2 Oral Production. *Applied Linguistics*, **30**(4), pp.474-509.
- [9]. Foster, P., and Skehan, P. 1996. The influence of planning and task type on second language performance. *Studies in Second Language Acquisition*, **18**(3), pp.299 – 323.
- [10]. Foster, P., and Skehan, P. 1999. The influence of source of planning and focus of planning on task-based performance. *Language Teaching Research*, **3**(3), pp.215- 247.
- [11]. Gass, S. M., Mackey, A., Fernandez, M., and Alvarez-Torres, M. 1999. The effects of task repetition on linguistic output. *Language Learning*, **49**(4), pp.549-80.
- [12]. Gilabert, R. 2007. The simultaneous manipulation of task complexity along planning time and (+/- Here-and-Now): Effects on L2 oral production. In: Garcia-Mayo, M. ed. *Investigating Tasks in Formal Language Learning*. Multilingual Matters, pp.44-68.
- [13]. Housen, A., and Kuiken, F. 2009. Complexity, accuracy and fluency in second language acquisition. *Applied Linguistics*, **30**(4), pp.461-473.
- [14]. Housen, A., Kuiken, F., and Vedder, I. 2012. *Dimensions of L2 performance and proficiency: Complexity, accuracy, and fluency in SLA*. Amsterdam/Philadelphia: John Benjamins.
- [15]. Kawauchi, C. 2005. The effects of strategic planning on the oral narratives of learners with low and high intermediate proficiency. In: Ellis, R. ed. *Planning and Task-Performance in a Second Language*. Amsterdam: John Benjamins, pp.143-164.
- [16]. Leech, G. 2000. Grammars of Spoken English: New Outcomes of Corpus-Oriented Research. *Language Learning*. **50**(4), pp.675-724.
- [17]. Levelt, W. 1989. *Speaking: From intention to articulation*. Cambridge, MA: MIT Press.
- [18]. Lynch, T. and Maclean, J. 2000. ‘A case of exercising’: effects of immediate task repetition on learners’ performance. In: Bygate, M., Skehan, P. and Swain, M. eds. *Researching pedagogic tasks: second language learning, teaching and testing*. Harlow, Essex: Longman, pp.141-162.
- [19]. Master, P. 1997. The English article system: acquisition, function, and pedagogy. *System*, **25**(2), pp.215-32.
- [20]. MacIntyre, P. D., and Gardner, R. C. 1994. The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, **44**(2), pp.283-305.
- [21]. Michel, M. 2017. Complexity, Accuracy and Fluency (CAF). In: Shawn, L. and Masatoshi, S. eds. *The Routledge Handbook of Instructed Second Language Acquisition*. London: Routledge, pp.50-68.
- [22]. Noels, K. A., Pelletier, L. G., Clément, R. and Vallerand, R. J. 2003. Why are you learning a second language? Motivational orientations and self-determination theory. *Language Learning*, **53**(1), pp.33-64.
- [23]. Odlin, T. 2003. Cross-linguistic influence. In: Doughty, C. J. and Long, M. H. eds. *Handbook of second language acquisition*. Malden, MA: Blackwell, pp. 436-86.
- [24]. Oller, J., and Ziahosseiny, S. 1970. The Contrastive Analysis Hypothesis and spelling errors. *Language Learning*, **20**(2), pp.183-189.
- [25]. Ortega, L. 2009. *Understanding Second language acquisition*. London: Hodder Education.
- [26]. Pallotti, G. 2015. A simple view of linguistic complexity. *Second Language Research*, **31**(1), pp. 117-134.
- [27]. Piaget, J. 1974. *The language and thought of the child*. New York: New American Library.
- [28]. Poulisse, N., and Bongaerts, T. 1994. First language use in second language production. *Applied linguistics*, **15**(1), pp.36-57.
- [29]. Punch, K. F. 2009. *Introduction to research methods in education*. Thousand Oaks, CA: Sage.

- [30]. Riazantseva, A. 2001. Second language proficiency and pausing: A study of Russian speakers of English. *Studies in Second Language Acquisition*, **23**(4), pp.497-526.
- [31]. Richards, J. 2014. The nature of approaches and methods in language teaching. In: Richards, J.C. and Rodgers, T.S. eds. *Approaches and methods in language teaching*. 3rd edition. Cambridge: Cambridge University Press, pp.18-35.
- [32]. Ringbom, H. 1987. *The role of the first language in foreign language learning*. Clevedon, UK: Multilingual Matters.
- [33]. Ringbom, H. 2007. *Cross-linguistic similarity in foreign language learning*. Clevedon: Multilingual Matters.
- [34]. Robinson, P., and Ellis, N. 2008. Conclusion: Cognitive linguistics, second language acquisition and L2 instruction—Issues for research. In: Robinson, P. and Ellis, N. eds. *Handbook of cognitive linguistics and second language acquisition*. New York: Routledge, pp. 489–545.
- [35]. Ryan, G. W. and Bernard, H. R. 2003. Techniques to identify themes. *Field Methods*, **15**(1), pp.85–109.
- [36]. Ryan, S. and Dörnyei, Z. 2013. The long-term evolution of language motivation and the L2 self. In: Berndt, A. ed. *Fremdsprachen in der Perspektive Lebenslangen Lernens*. Frankfurt: Peter Lang, pp.89–100.
- [37]. Sánchez, L. 2011. Luisa and Pedrito’s dog will the breakfast eat: Interlanguage transfer and the role of the second language factor. In: De Angelis, G. and Dewaele, J.-M. eds. *New Trends in Crosslinguistic Influence and Multilingualism Research*. Clevedon: Multilingual Matters, pp. 86-104.
- [38]. Saldana, J. 2011. *Fundamentals of qualitative research*. Oxford: Oxford University Press.
- [39]. Schmidt, R. 1983. Interaction, acculturation, and the acquisition of communicative competence. In Wolfson, N. and Judd, E. eds. *Sociolinguistics and language acquisition*. Rowley, MA: Newbury House, pp. 137–74.
- [40]. Schumann, J. 1978. *The pidginization process: A model for SLA*. Rowley, MA: Newberry House.
- [41]. Skehan, P. 1996. Second-language acquisition research and task-based instruction. In: Willis, J. and Willis, D. (eds). *Challenge and Change in Language Teaching*. Oxford: Heinemann, pp.17-30.
- [42]. Sullivan, S. and Brockington, D. 2003. *Qualitative research*. In: Scheyvens, R. and Storey, D. eds. *Development fieldwork: a practical guide*. London: Sage, pp.57-74
- [43]. Ushioda, E. 2001. Language learning at university: exploring the role of motivational thinking. In: Dörnyei, Z. and Schmidt, R. eds. *Motivation and Second Language Acquisition*. Honolulu, HI: University of Hawaii, Second Language Teaching and Curriculum Center, pp.93-125.
- [44]. Ushioda, E. 2011. Language learning motivation, self and identity: current theoretical perspectives. *Computer Assisted Language Learning*, **24**(3), pp.199–210.
- [45]. VanPatten, B. 1990. Attending to content and form in the input: An experiment in consciousness. *Studies in Second Language Acquisition*, **12**(3), pp.287–301.
- [46]. White, L. 1992. On triggering data in L2 acquisition: A reply to Schwartz and Gibala-Ryzak. *Second Language Research*, **8**, pp.120-137.
- [47]. Wiese, R. 1984. Language production in foreign and native languages: Same or different? In: Dechert, H. W., Möhle, D. and Raupach, M. eds. *Second Language Productions*. Tübingen: Gunter Narr Verlag, pp.11-25.
- [48]. Witzel, J., Witzel, N. and Nicol, J. 2012. Deeper than shallow: Evidence for structure-based parsing biases in second-language sentence processing. *Applied Psycholinguistics*, **33**(2), pp.419-456.
- [49]. Yuan, F. and Ellis, R. 2003. The Effects of Pre-task Planning and On-line Planning on Fluency, Complexity and Accuracy in L2 Monologic Oral Production. *Applied Linguistics*, **24**(1), pp.1-27.
- [50]. Zobl, H. 1984. Cross-language generalizations and the contrastive dimension of the interlanguage hypothesis. In: Davies, A., Criper, C. and Howatt, A. eds. *Interlanguage*. Edinburgh, UK: Edinburgh University Press, pp.79–97.