

Developing and validating a metacognitive writing questionnaire for EFL learners

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In an attempt to develop a metacognitive writing questionnaire, Farahian (2015) conducted a study which was based on the results obtained from a semi-structured interview (Maftoon, Birjandi & Farahian, 2014). After running various exploratory factor analyses (EFA) to validate the questionnaire two general scales of knowledge and regulation of cognition emerged; however, regarding the subscales of knowledge and regulation of cognition no clear pattern was found. As such, in the present study a confirmatory factor analysis (CFA) was run to refine the scale and construct the final questionnaire. The findings led to a hypothesised model comprising two factors of knowledge of cognition and regulation of cognition with ten subcategories represented in a 36-item questionnaire.

Introduction

Although the historical background of metacognition, as well as self-regulation, can be traced back to James, Piaget and Vygotsky (Fox & Riconscente, 2008), it was not until the 1970s that the concept was shaped, and the term metacognition was coined. Flavell (1987) suggested that metacognitive knowledge is “the part of one’s acquired world knowledge that has to do with cognitive (or perhaps better, psychological) matters” (p. 21). As a matter of fact, it includes the individual’s perspective of one’s own cognitive abilities, as well as others.

After the emergence of process-oriented approaches in writing, notably that of Hayes and Flower (1980), the vital role of metacognition in the writing process has been widely acknowledged. Various cognitive processes refer to the crucial role of self-regulatory and decision making processes which improve writing performance. The emphasis on the critical role of metacognition has been so great that Hayes and Flower argued that “a great part of the skill in writing is the ability to monitor and direct one’s own composing process” (p. 39). Hacker et al. (2009), having the same approach, defined writing as *applied metacognition*.

Process-oriented theories of writing conceive of writing as a problem solving activity. The more one is equipped with higher order processing skills, the more he or she will be capable of acting successfully in problem solving situations. In other words, it can be concluded that for a recursive goal directed process to function properly, monitoring a mechanism for “management of topical, rhetorical and strategic knowledge” (Hawkins, 2007, p. 6) is crucial.

The role of metacognition is also emphasised in the post-process approaches to writing (Hawkins, 2007), which have criticised cognitive process-oriented approaches to writing as being “overly individualistic, reductive, and de-contextualized” (p.48). Socio-cognitive

models and genre-based approaches, for example, have such a stance. It should be noted that genre-based approaches give a pivotal role to metacognitive processes (Yeh, 2014) which “have as their object knowledge of genre, discourse, and rhetorical aspects of academic texts” (Negretti & Kuteeva, 2011). These approaches have no choice but to admit that apart from the interplay of the effect of social context, affect, and cognition, metacognition has a decisive role in writing.

Metacognition has also found its place in second language studies (e.g., Blasco, 2016; Gustilo & Magno, 2015). Wenden (1998), argued that metacognitive knowledge “is a prerequisite for the self-regulation of language learning: it informs planning decisions taken at the outset of learning and the monitoring processes that regulate completion of a learning task...” (p. 528). Apart from its role in different language learning skills, metacognitive knowledge has been recognised as a significant attribute affecting the process, as well as the product in second language writing (Wang, Spencer & Xing, 2009; Zimmerman & Bandura, 1994). Research findings show that metacognitive awareness is a factor which distinguishes poor from skilled writers (Victori, 1999). The metacognitive growth of second language learners apart from their ethnic, cultural, and linguistic backgrounds positively correlates with their writing performance (Kasper, 1997). Metacognition is given even higher credit by some scholars (e.g., Hacker, Keener & Kircher, 2009) who claim that the writing process from the beginning to the end is an act of metacognitive behaviour. The reason offered for such an assertion is that the knowledge of metacognition and its manipulation should be with writers every second they are involved in the writing.

Parallel to inquiry into the role of the metacognition in learning, a large number of research studies have shown interest in the measurement of metacognitive knowledge in second language learning as well. As such, tools for assessing metacognition in second reading and listening, *Metacognitive Awareness Listening Questionnaire* (e.g., Vandergrift et al., 2006) and *Metacognitive Awareness of Reading Strategies Inventory* (Mokhtari & Reichard, 2002) were developed; however, despite such a growth of interest in developing measures of metacognition in second language learning, scant attention has been given to the development of measures of metacognition in second language/foreign language writing, though a few studies have dealt with metacognition in second language/foreign language writing (Kasper 1997; Sperling et al., 2002; Victori, 1999). Research findings identify metacognitive awareness as a factor which distinguishes poor from skilled writers (Victori, 1999). It has also been found that metacognitive knowledge of second language learners correlates highly with their writing performance (Kasper, 1997). Metacognition has such an important role in writing that it has been recognised as an act of metacognitive behaviour (Hacker et al., 2009). The only study, to the researcher’s best knowledge, which has attempted to develop a metacognitive knowledge questionnaire on writing, was by Yanyan (2010), which was based on Flavell’s (1979) model of metacognition including person, task and strategic knowledge. This turns out to be a limitation of the study as the framework chosen by Yanyan did not adequately cover the related theoretical assumptions such as the recent two-dimensional framework of metacognition (e.g., Brown et al., 1983; Shraw & Dennison, 1994). Besides, there is no report on the validation of the questionnaire.

Since measuring metacognition as a general construct for all contexts is very demanding and may yield inaccurate findings, measures of metacognition have focused on narrower, domain-specific areas. *To this end*, the present study, as a follow-up study for Farahian (2015), aimed to assess the results obtained from factor analysis and refine the scale. Accordingly, this study addressed the following research question:

Does the MAWQ (Metacognitive Awareness Writing Questionnaire) show good fit indices as measured by confirmatory factor analysis (CFA)?

Method

As reported in Farahian (2015), although the predicted components formed two general factors of knowledge and regulation of cognition, the results obtained from exploratory factor analysis (EFA) did not render reliable factors of MAWQ; therefore, structural equation modeling (SEM) in *AMOS22* (Statistics Solutions, n.d.) was conducted to investigate the factor structure of the construct. Similar to the steps taken in EFA, first, the construct validity of the knowledge of cognition was probed. Unlike EFA which did not allow the researchers to have control over the number of desired factors and their loading patterns, the CFA begins with a-priori model specified by the researchers and then tries to support or reject the model.

Participants

The study was conducted in February 2014. The participants were 524 Iranian university EFL students majoring in different fields of study in English language, including teaching English, translation, and literature. The participants were selected using convenience sampling from different universities.

Procedure

As the first step, the participants were interviewed (see Maftoon, Birjandi & Farahian, 2014). A list of statements was generated based on the content analysis of the participants' responses. Following the inductive data analysis and after the emergence of some categories, the deductive analysis as the confirmatory stage was adopted. Based on Patton (2002) "generating theoretical propositions or formal hypotheses after inductively identifying categories is considered deductive analysis..." (p. 454). At this stage, the emerged categories were compared and contrasted to the existing categories in the field (Brown et al., 1983; Schraw & Dennison, 1994; Shraw & Moshman, 1995). The purpose was to see if the components of metacognitive awareness of the participating Iranian EFL learners mirrored the literature. As a result, a classification of metacognitive awareness of Iranian EFL learners emerged (Table 1).

Table 1: The framework for metacognitive awareness writing knowledge

A: Knowledge of cognition	1. Declarative knowledge (person) Self-concept and self-efficacy General facts and opinion mental translation the effect of reading in FL
	2. Declarative knowledge (task knowledge)
	3. Procedural knowledge
	4. Conditional knowledge
B: Regulation of cognition	1. Planning and drafting Audience consideration
	2. Monitoring
	3. General online strategies Allocating time and place Avoidance Attention Asking for help Translation
	4. Revision
	5. Evaluation

Adapted from Maftoon, Birjandi & Farahian (2014, p. 48).

Following the preparation of the initial item pools they were checked for content validity by five experts. The resultant list of items was subjected to a pilot test with twenty participants, who were asked to identify ambiguous items. They were also asked to write their comments regarding the items. After receiving the feedback the list of statements was again revised. The questionnaire was translated by a professional translator into Persian to make sure that the participants' limited language proficiency in English would not negatively affect their responses. After the preliminary analyses of reliability and testing assumptions a list of statements was then developed. To validate the questionnaire, EFA and CFA were run.

Findings and discussion

As it was reported by Farahian (2015), the reliability indices were acceptable ranging from .67 to .91. The obtained result from EFA showed a two factor model for metacognitive awareness. However, no clear pattern emerged regarding the sub-components. Therefore, it was thought that a CFA may help researcher fine-tune the obtained results.

Trait structures of knowledge of cognition

Figure 1 displays the trait structures of the components of the knowledge of cognition questionnaire in standardised units. The knowledge of cognition – as represented by an oval at the middle of the diagram – has five components each of which has a number of items which are displayed through smaller sized ovals. It should be noted that three items, namely, attention, translation, and audience consideration were dropped from the model because they were the only observed indicators for the latent variables.

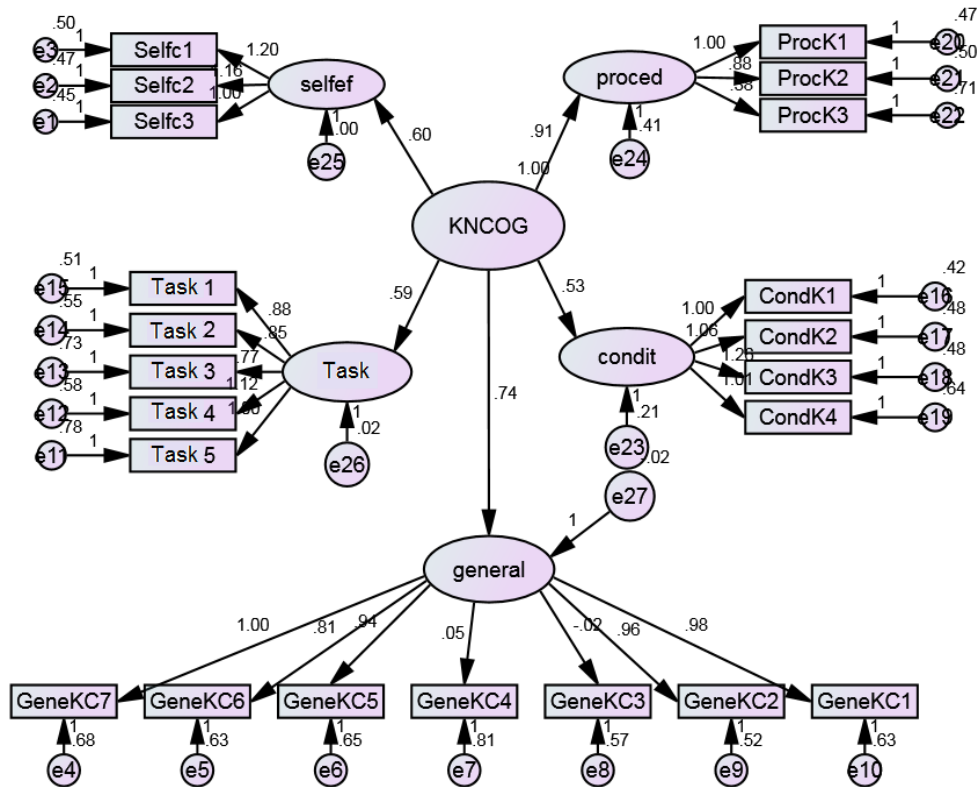


Figure 1: Knowledge of cognition model (standardised estimates)

The model for knowledge of cognition shows that all of the paths between observed and/or latent variables were significant ($p < .001$), except for GeneKC3 and GeneKC4 (two items related to general section of knowledge of cognition) which made non-significant contributions to the model ($p > .05$). The standardised regression coefficients for the above mentioned two variables were lower than .30, the minimum acceptable value.

Figure 2 clearly shows the trait structures of knowledge of cognition after removing the two non-significant observed variables. In the revised model, all the paths between observed and/or latent variables were significant ($p < .001$). Moreover, the paths in standardised units all of the standardised regression coefficients were higher than .30.

The model fit indices showed a good fit for the revised model. However, it is noteworthy that although the chi-square test was significant ($\chi^2(45) = 284.60, p < .05$), the large sample size might have resulted in the significance value. The ratios of the chi-square over the degrees of freedom ($1.72 < 3$) also indicated that the model enjoyed a good fit. The RMSEA value of .033 and its 95 percent confidence intervals (.030 and .045) were all lower than .05, another indication of the fit of the revised model. The p-close fit value of .998 ($> .05$) indicated the knowledge of cognition enjoyed a good fit. The CFI (.97 $> .95$) also showed the good fit of the revised model.

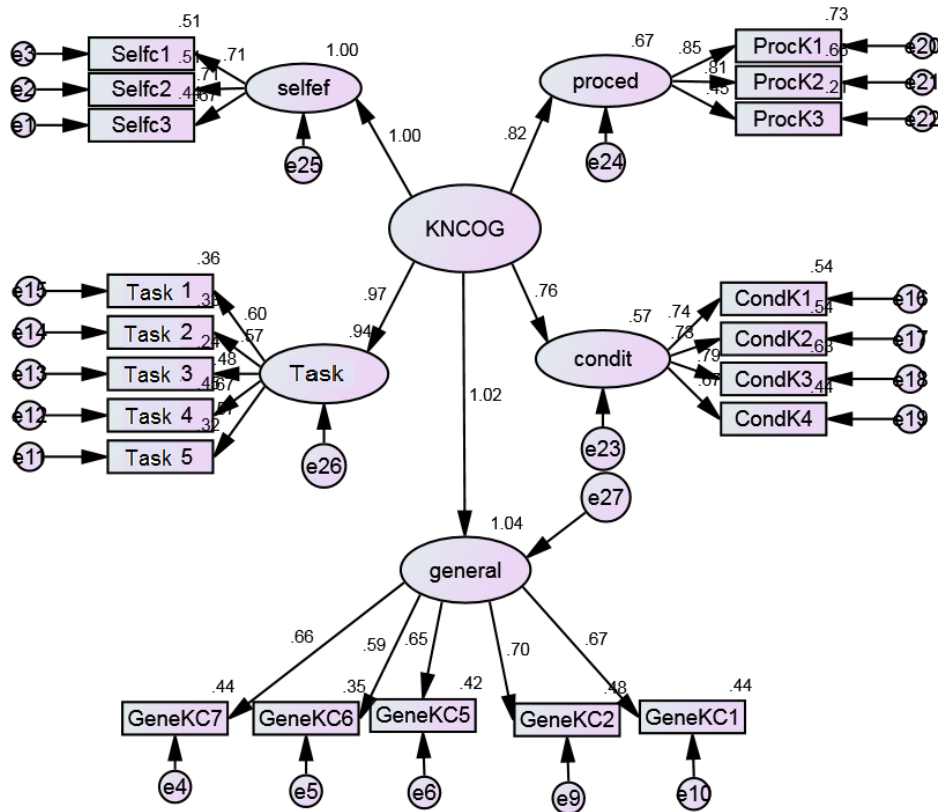


Figure 2: Revised knowledge of cognition model (standardised estimates)

Trait structures of recognition of cognition

Figure 3 shows the trait structures of the components of the recognition of cognition questionnaire in standardised units. The recognition of cognition, as shown by an oval in the middle of the diagram, has eight components each of which has a number of items shown by rectangles.

Unlike the knowledge of cognition model, the recognition of cognition needs a number of revisions. Based on the results, eight variables were deleted, namely Plan5, Plan7, AsH1, AsH2, GeneST2, GeneST 4, Eval2 and Monit5, due to their non-significant and / or low contribution to the model. Unlike the expectation, this model did represent a good fit to the data since none of the fit indices were at the recommended levels; therefore, the regulation of cognition model was revised twice. The non-significant paths were deleted first. The resultant model did not achieve a good fit either. The majority of the fit indices did not show a good fit. Finally, the Monitoring component of the model was removed to render the measurement model 4 (see Figure 4). It should be noted that all of the standardised paths between observed and /or latent variables were significant ($p < .001$).

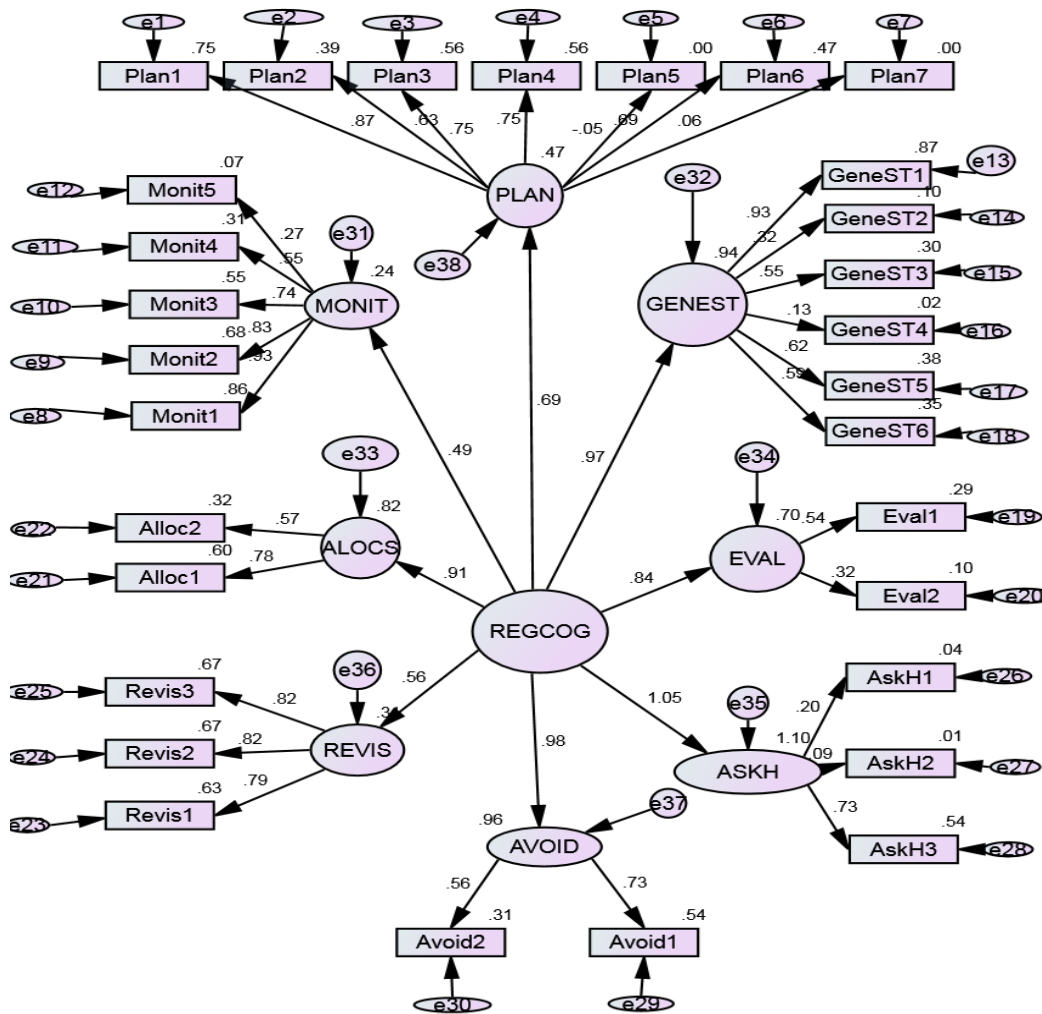


Figure 3: Regulation of cognition model (standardised estimates)

The model fit indices demonstrated that the revised model provided a good fit for the data and the chi-square test was significant ($\chi^2 (45) = 284.60, p < .05$). The ratios of the chi-square over the degree of freedom ($1.72 < 3$) also indicated that the model enjoyed a good fit. The RMSEA value of .033 and its 95 percent confidence intervals (.030 and .045) were all lower than .05, another indication that the fit of the model was adequate. Furthermore, the p-close fit value was .998 ($> .05$) suggesting a good fit for the knowledge of cognition.

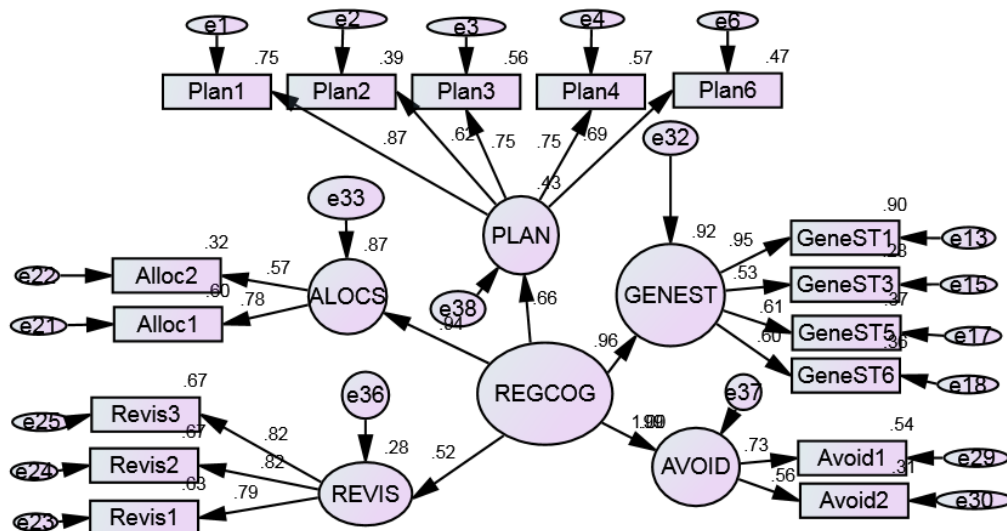


Figure 4: Revised regulation of cognition model (standardised estimates)

Trait structures of total model knowledge and regulation of cognition

The combination of the final models of knowledge of cognition (Figures 3 and 4) and regulation of cognition (Figures 2 and 4) is displayed below in standardised units (Figure 5). The two questionnaires are hypothesised to measure a higher order latent variable, i.e., metacognitive awareness of writing (MAW). All the paths connecting the latent and or observed variables enjoy statistical significance ($p < .001$).

The MAW model fit indices (Table 2) implied a good fit. As illustrated in Table 1, the ratios of the chi-square over the degree of freedom ($2.08 < 3$) indicated a good fit. The RMSEA value of .046 and its 95 percent confidence intervals (.042 and .049) were all lower than .05; another evidence for the fit of the model. The p-close fit value of .975 ($> .05$) was also indicative of fit of the MAW model.

Table 2: Model fit indices - metacognitive awareness of writing - final revision

Model fit	Value	Recommended level
Chi-square	1214.47 (584), $p < .05$	$p < .05$
Ratio of χ^2 over d.f.	2.08	< 3
GFI	.88	$\geq .90$
AGFI	.86	$\geq .90$
RMR	.23	$< .05$
RMSEA	.046	$< .05$
95% CIV RMSEA	(.042 to .049)	$< .05$
p-close for RMSEA	.975	$> .05$
CFI	.92	$> .95$

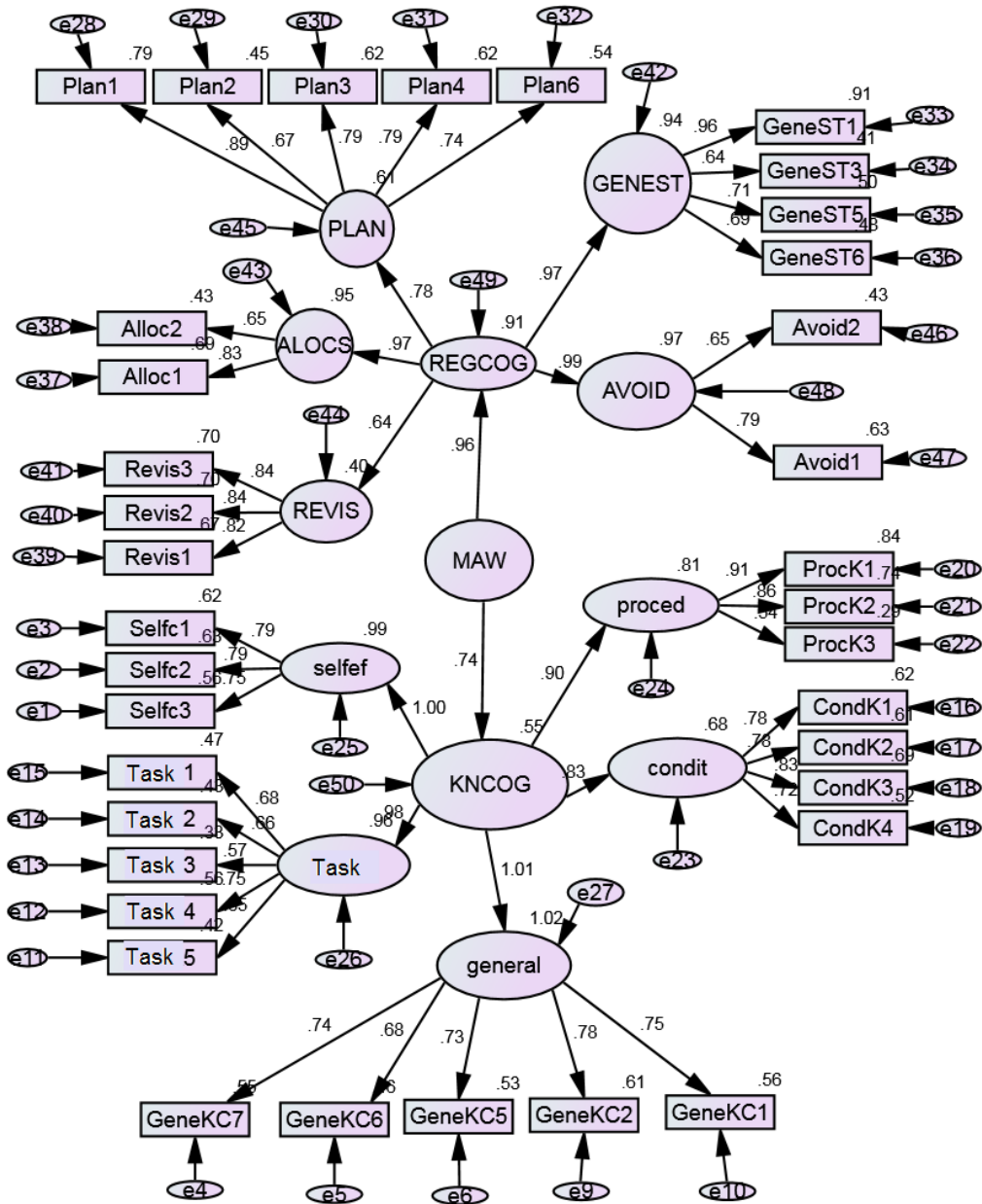


Figure 5: Revised model for knowledge of and regulation of cognition

Since the result obtained from EFA did not yield reliable factors, CFA was run to demonstrate the construct validity of the MAWQ and refined the proposed model. Thus, as in EFA, first the trait structure of knowledge and regulation of cognition was sought separately. Later, the trait structure of the whole model was explored. Based on goodness of fit statistics, the hypothesised models were modified and the items which did not have

significant observed variables were dropped. Regarding the goodness of fit of the final model, all model fit indices were satisfactory. Accordingly, a questionnaire (see the Appendix) with 36 items emerged.

Conclusion

The findings are congruent with the account of metacognition with two general components (Brown, 1987; Jacobs & Paris, 1987). Although these two components are interrelated (Brown, 1987; Schraw, 1998), it was found that knowledge and control are two distinct elements. Moreover, the findings supported the 36 item questionnaire which can measure metacognitive awareness of Iranian EFL learners.

Additionally, the findings of the study also suggest that three sub-components of metacognitive knowledge - declarative, procedural, and conditional (Shraw & Moshman, 1995) - well suit Iranian EFL learners; however, based on the findings, apart from individual's self-concept reported by Ruan (2014) as a variable affecting person knowledge, students' beliefs and opinions regarding the act of composing is part of person knowledge. Thus, it can be assumed that students' beliefs with regard to what is effective writing affects their metacognitive awareness.

Although the results partially supported the literature on metacognition (Schraw & Dennison 1994; Schraw & Mushman, 1995), removing monitoring and evaluation ran counter to the expectations, thus, another research study could be conducted to administer the obtained questionnaire in the same context. As such, future research is needed to refine the model and identify the nature of the relationships among the factors. Additionally, further research is needed to interview a number of EFL teachers and seek their views about the utility of the MAWQ. The follow up study may enquire if they see the new scale as a tool which provides them with enabling insights into their own teaching.

The present study makes theoretical and pedagogical contributions to the field of educational psychology and second language acquisition. First of all, despite the fact that in recent years few research studies (e.g., Ruan, 2014; Schraw & Dennison, 1994; Sperling et al., 2002; Vandergrift et al., 2006) have attempted to contribute to a more coherent picture of the construct of metacognition, to the best of author's knowledge, no attempt has been made to present a comprehensive model of metacognitive in foreign language learning. Thus, the model presented here may contribute to a better understanding of the nature of metacognition in a domain-specific area as foreign language writing. At the same time, the presented model may inform research in the area of metacognition, since due to the abstract nature of metacognitive awareness its operationalisation presents a more coherent view of the construct. This may contribute to a further consistency in metacognitive research and at the same time prepare the cornerstone for further exploration of metacognitive awareness in EFL settings.

It should be kept in mind that Iranian EFL student have gone through an educational system in which the general approach toward writing has been predominantly a product-oriented approach. In addition, instructors have often felt that it was sufficient to provide students with lexical or grammatical knowledge of the writing task. Such an orientation has led to the neglect of the process of writing in EFL courses. As a result, many Iranian EFL learners have failed at acquiring writing skills because they have little or no awareness of the complexity of writing as a cognitive task. As to pedagogical implications, the findings may help teachers and students become more familiar with the process of EFL writing, especially the higher order processes of writing.

It has been argued that metacognition is culture bound and that different educational environments result in differences in metacognition (Angelova, 2001; Hacker & Boll, 2004). Therefore, while on the one hand selecting participants from one province of Iran may have resulted in the homogeneity of the sample, on the other hand this reduced the generalisability of the findings to other EFL contexts. Further research is needed to randomly select participants and administer the questionnaire in other EFL contexts.

Finally, while providing answers to some questions, and, at the same time, raising new questions, this study makes a small contribution to the research in the area of metacognition in EFL writing. Moreover, it generates a new outlook to metacognition in EFL learning and provides new perspectives for the research on EFL writing. However, it should not be forgotten that despite its psychometric properties, the MAWQ like any other scale can be considered as only one source of information regarding EFL students' metacognitive awareness.

References

- Angelova, M. (2001). Metacognitive knowledge in EFL writing. *Academic Exchange Quarterly*, 5(3), 78-83. <https://www.questia.com/library/journal/1G1-80679259/metacognitive-knowledge-in-efl-writing-language>
- Blasco, J. A. (2016). The relationship between writing anxiety, writing self-efficacy, and Spanish EFL students' use of metacognitive writing strategies: a case study. *Journal of English Studies*, 14, 7-45. <https://publicaciones.unirioja.es/ojs/index.php/jes/article/view/3069>
- Brown, A. (1987). Metacognition, executive control, self-regulation, and other more mysterious mechanisms. In F. Weinert & R. Kluwe (Eds.), *Metacognition, motivation, and understanding* (pp. 65-116). Hillsdale, NJ: Lawrence Erlbaum.
- Brown, A. L., Bransford, J. D., Ferrara, R. A. & Campione, J. C. (1983). Learning, remembering, and understanding. In P. H. Mussen (Ed.), *Handbook of child psychology* (4th ed., Vol. III, pp. 77-166). New York: Wiley.
- Farahian, M. (2015). Assessing EFL learners' writing metacognitive awareness. *Journal of Language and Linguistic Studies*, 11(2), 39-51. <http://www.jlls.org/index.php/jlls/article/view/396/218>
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), 906-911. <http://dx.doi.org/10.1037/0003-066X.34.10.906>

- Flavell, J. H. (1987). Speculation about the nature and development of metacognition. In F. Weinert & R. Kluwe (Eds.), *Metacognition, motivation, and understanding* (pp. 21-29). Hillsdale, NJ: Lawrence Erlbaum.
- Fox, E. & Riconscente, M. (2008). Metacognition and self-regulation in James, Piaget and Vygotsky. *Educational Psychology Review*, 20(4), 373-389.
<https://link.springer.com/article/10.1007/s10648-008-9079-2>
- Gustilo, L. E. & Magno, C. (2015). Explaining L2 writing performance through a chain of predictors: A SEM approach. *3L: The Southeast Asian Journal of English Language Studies*, 21(2), 115-130. <http://ejournals.ukm.my/3l/article/view/8787>
- Hacker, D. J. & Bol, L. (2004). Metacognitive theory: Considering the social-cognitive influences. In D. M. McInerney & S. van Etten (Eds.), *Big theories revisited: Research on sociocultural influences on motivation and learning* (pp. 275-297). Greenwich, CT: Information Age Publishing.
- Hacker, D. J., Keener, M. C. & Kircher, J. C. (2009). Writing is applied metacognition. In D. J. Hacker, J. Dunlosky & A. C. Graesser (Eds.), *Handbook of metacognition in education* (pp. 154-172). New York: Routledge.
- Hawkins, R. E. (2007). *Classifying and characterizing student writers' metacognition: A social cognitive ethnography*. PhD dissertation, Southern Illinois University.
<https://search.proquest.com/openview/1198827f27d2ed92cdf868aa7899990/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Hayes, J. & Flower, L. (1980). Identifying the organization of writing processes. In L. Gregg & E. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3-30). Hillsdale, NJ: Lawrence Erlbaum.
- Kasper, L. F. (1997). Assessing the metacognitive growth of ESL student writers. *TESL-EJ*, 3(1), 1-20. [http://www.tesl-ej.org/wordpress/issues/volume3/ej09/ej09a1/](http://www.tesl-ej.org/wordpress/issues/volume3/ej09/ej09a1/Maftoon, P., Birjandi, P. & Farabian, M. (2014). Investigating Iranian EFL learners' writing metacognitive awareness. International Journal of Research Studies in Education, 3(5), 37-52. https://doi.org/10.5861/ijrse.2014.896)
- Maftoon, P., Birjandi, P. & Farabian, M. (2014). Investigating Iranian EFL learners' writing metacognitive awareness. *International Journal of Research Studies in Education*, 3(5), 37-52.
<https://doi.org/10.5861/ijrse.2014.896>
- Mokhtari, K. & Richards, C. A. (2002). Assessing students' metacognitive awareness of reading strategies. *Journal of Educational Psychology*, 94(2), 249-259.
<http://dx.doi.org/10.1037/0022-0663.94.2.249>
- Negretti, R. & Kuteeva, M. (2011). Fostering metacognitive genre awareness in L2 academic reading and writing: A case study of pre-service English teachers. *Journal of Second Language Writing*, 20(2), 95-110. <https://doi.org/10.1016/j.jslw.2011.02.002>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: SAGE.
- Ruan, Z. (2014). Metacognitive awareness of EFL student writers in a Chinese ELT context. *Language Awareness*, 23(1-2), 76-91.
<http://dx.doi.org/10.1080/09658416.2013.863901>
- Schraw, G. (1998). On the development of adult metacognition. In M. C. Smith & T. Pourchot (Eds.), *Adult learning and development: Perspectives from educational psychology* (pp. 89-108). Mahwah, NJ: Lawrence Erlbaum.
- Schraw, G. & Dennison, R. S. (1994). Assessing metacognitive awareness. *Contemporary Educational Psychology*, 19(4), 460-475. <https://doi.org/10.1006/ceps.1994.1033>
- Schraw, G. & Moshman, D. (1995). Metacognitive theories. *Educational Psychology Review*, 7(4), 351-371. <https://link.springer.com/article/10.1007/BF02212307>

- Statistics Solutions (n.d.). *AMOS*. <http://www.statisticssolutions.com/amos/>
- Vandergrift, L., Goh, C. C. M., Mareschal, C. J. & Tafaghodtari, M. H. (2006). The metacognitive awareness listening questionnaire: Development and validation. *Language Learning*, 56(3), 431-462. <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9922.2006.00373.x/abstract>
- Victori, M. (1999). An analysis of writing knowledge in EFL composing: A case study of two effective and two less effective writers. *System*, 27(4), 537-555. [https://doi.org/10.1016/S0346-251X\(99\)00049-4](https://doi.org/10.1016/S0346-251X(99)00049-4)
- Wenden, A. L. (1998). Metacognitive knowledge and language learning. *Applied Linguistics*, 19(4), 515-537. <https://doi.org/10.1093/applin/19.4.515>
- Yanyan, Z. (2010). Investigating the role of metacognitive knowledge in English writing. *HKBU Papers in Applied Language Studies*, 14, 25-46. http://lc.hkbu.edu.hk/book/pdf/v14_02.pdf
- Yeh, H. C. (2014). Facilitating metacognitive processes of academic genre-based writing using an online writing system. *Computer Assisted Language Learning*, 28(6), 479-498. <http://dx.doi.org/10.1080/09588221.2014.881384>
- Zimmerman, B. J. & Bandura, A. (1994). Impact of self-regulatory influences on writing course attainment. *American Educational Research Journal*, 31(4), 845-62. <http://journals.sagepub.com/doi/abs/10.3102/00028312031004845>

Appendix: MAWQ (Metacognitive Awareness Writing Questionnaire)

	Items	Strongly agree	Agree	No idea	Disagree	Strongly disagree
1.	Writing in English makes me feel bad about myself.	()	()	()	()	()
2.	I think writing in English is more difficult than reading, speaking, or listening in English.	()	()	()	()	()
3.	I believe a successful writer is born not made.	()	()	()	()	()
4.	Topic familiarity has a significant effect on one's writing output.	()	()	()	()	()
5.	A skillful writer is familiar with writing strategies (e.g., planning or revising the text).	()	()	()	()	()
6.	At every stage of writing, a skillful writer avoids making error.	()	()	()	()	()
7.	Dwelling on vocabulary items and grammar interferes with getting the message across.	()	()	()	()	()
8.	Word by word translation from first language to English negatively affects one's ability in writing.	()	()	()	()	()
9.	I am aware of different types of text types in writing (e.g., expository, descriptive, narrative).	()	()	()	()	()

10.	I know that the necessary components of an essay are introduction, body, and conclusion.	()	()	()	()	()
11.	I am familiar with cohesive ties (e.g., therefore, as a result, firstly).	()	()	()	()	()
12.	I know what a coherent piece of writing is.	()	()	()	()	()
13.	I am good at writing topic sentences.	()	()	()	()	()
14.	I know what to do at each stage of writing.	()	()	()	()	()
15.	I find myself applying writing strategies with little difficulty.	()	()	()	()	()
16.	I know how to develop an appropriate introduction, body, and conclusion for my essay.	()	()	()	()	()
17.	I know when to use a writing strategy.	()	()	()	()	()
18.	I know which writing strategy best serves the purpose I have in my mind.	()	()	()	()	()
19.	I know what to do when the writing strategies I employ are not effective.	()	()	()	()	()
20.	I know which problem in writing needs much more attention than others.	()	()	()	()	()
21.	Before I start to write, I prepare an outline.	()	()	()	()	()
22.	I have frequent false starts since I do not know how to begin.	()	()	()	()	()
23.	Before I start to write, I find myself visualising what I am going to write.	()	()	()	()	()
24.	My initial planning is restricted to the language resources (e.g., vocabulary, grammar, expressions) I need to use in my essay.	()	()	()	()	()
25.	I set goals and sub-goals before writing (e.g., to satisfy the teacher, to be able to write emails, to be a professional writer).	()	()	()	()	()
26.	I find myself resorting to fixed sets of sentences I have in mind instead of creating novel sentences.	()	()	()	()	()
27.	At every stage of writing, I use my background knowledge to create the content.	()	()	()	()	()
28.	I mainly focus on conveying the main message rather than the details.	()	()	()	()	()
29.	I automatically concentrate on both the content and the language of the text.	()	()	()	()	()
30.	I can effectively manage the time allocated to writing.	()	()	()	()	()
31.	I choose the right place and the right time in order to write.	()	()	()	()	()
32.	I use avoidance strategies (e.g. when I do not know a certain vocabulary item or structure, I avoid it).	()	()	()	()	()
33.	When I cannot write complicated sentences, I develop other simple ones.	()	()	()	()	()

34.	After I finish writing, I edit the content of my paper.	()	()	()	()	()
35.	If I do revision, I do it at the textual features of the text (e.g., vocabulary, grammar, spelling).	()	()	()	()	()
36.	If I do revision, I do it at both textual and the content levels.	()	()	()	()	()

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