

Developing and Validating a Sociocultural Plagiarism Questionnaire for Assessing English Academic Writing of Iranian Scholars

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Abstract: Plagiarism is considered as a serious problem in academia around the world. The issue of plagiarism has recently received global inquiry in different fields of science, especially in foreign language (L2) academic writing. To meticulously assess the Iranian academics for plagiarism at both theory and practice grounds, developing an accountable instrument seemed to be inevitable. To bridge the gap, in phase 1 of the study, a conceptual framework for Iranian academics' grasp of plagiarism and its components was designed after a thorough review of literature. In phase 2, a number of M.A. graduates and graduate students (n = 224) in six State and Islamic Azad universities in Iran were recruited to partake in piloting the newly-designed plagiarism questionnaire. After a two-step revising the inefficient items (n = 11), the final draft of the developed questionnaire with 36 items was administered with the main sample of participants (n = 288). An Exploratory Factor Analysis was performed to identify the components of the instrument, followed by Confirmatory Factor Analysis to measure its construct validity. As a result, the final draft of the Sociocultural Plagiarism Questionnaire contained 31 Likert-point and 5 multiple choice items in four components of awareness (10 items), attitude (8 items), sociocultural beliefs (8 items), and perception (5 Likert-point and 5 multiple choice items), which were suggested as having fundamental contributions to the Iranian academic writers' sensitivity to plagiarism. Findings of the study suggested that (a) the Iranian academic writers' normative sociocultural beliefs can probably reduce their sensitivity to plagiarism, (b) while the Iranian academics might have relatively high awareness and deep perception about plagiarism, their attitude toward plagiarism seems relatively neutral or even insensitive.

Keywords: Attitude, Awareness, Perception, Plagiarism, Questionnaire, Sociocultural Beliefs.

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Introduction

In recent years, the unfortunate phenomenon of plagiarism as an unethical behavior has turned into a worldwide question in education (Angélil-Carter, 2014; Awdry & Sarre, 2013; Bretag, 2007; McCabe, Butterfield & Trevino, 2006; Zobel & Hamilton, 2002). As Martin (2004) stated, "plagiarism involves claiming credit for other peoples' ideas or creations without proper acknowledgement, [as] in an academic context, acknowledgement is typically given in the form of citations or explicit statements of thanks" (p. 1). The considerable increase in the rate of committing plagiarism and its negative effects on the academic society, such as damaging the credibility of higher education systems (Altbach, 2004) and diminishing the esteem of science in the mind of the general public (Betts, 1992), provoked the educational communities around the world to pay more efforts to finding the contributing factors as well as solutions to this problem.

Since plagiarism is perceived differently in different cultures (Liu, 2005), it seems revealing to probe it within various sociocultural and academic contexts. Several studies have scrutinized different viewpoints regarding plagiarism, and its legal or ethical issues in such academic enterprise as second/foreign language (L2) academic writing (e.g., Bugeja, 2004; McLafferty & Foust, 2004). In L2 writing, plagiarism is a linguistic and language-learning phenomenon. As Pecorari and Bojana (2014) emphasized "L2 learner status has frequently been identified as a causal or contributing factor in plagiarism, and the two reasons most frequently offered for this connection are (a) difficulties associated with L2 academic writing and (b) the cultural differences" (p. 2). Nevertheless, majority of the studies on plagiarism were conducted in Western countries and represented the Western cultural attitudes and social concerns about this unethical behavior (Rezanejad & Rezaei, 2013). This is while, in developing countries like Iran, the infringement of copyright and illegal reproduction of the original literary, artistic and scientific assets are common misbehaviors (Yang & Lin, 2010). Therefore, instead of looking at plagiarism through global lenses and proposing general prescriptions in this regard, the current researchers believe this issue needs *a local vibration* inside the target cultural and academic environment.

Literature Review

Relying on literature, academic writers' awareness, attitude and perception towards plagiarism are indispensable to avoid plagiarism (Babalola, 2012; Onuoha & Ikonne, 2013). However, poor time management, deficient organizational skills and lack of motivation to do

research are among the personal causes for committing plagiarism (Carroll, 2002). Likewise, poor assignment design, lack of research skills, misunderstanding of the research methods in science, and difficulties in writing articles in academic language – especially in L2 - are among the instructional factors leading to plagiarism (Carroll, 2002; Park, 2003). Bennett (2005) also referred to some of the sociocultural incentives to plagiarism such as peer pressure, parental pressure, social pressure, cultural misunderstandings, fear of failure, and poor grades.

Many L2 academic writers have been reported to face difficulties in understanding the concept of plagiarism in a foreign language (Evans & Youmans, 2000; Marshall & Garry, 2006), and "even being able to recognize different forms of plagiarism, the technical aspects of putting this knowledge into practice is difficult for many L2 writers, as it requires certain control of the language which they may not yet have achieved" (Maxwell, Curtis & Vardanega, 2008, p. 31). As Carroll (2007) claimed, "many L2 students 'borrow' the words of native authors through lack of confidence in their own abilities to write correct, clear English" (p. 84), and as they struggle to put their concepts and ideas into their own words, they find it easier to copy the texts from elsewhere (Carroll, 2007). Apart from the language difficulties, L2 academic writers are generally from different cultures with radically different attitudes toward plagiarism and often have different viewpoints towards academic authority and deference (Burnett, 2002). Research studies claimed that many L2 writers, especially those originated from Asian countries, hardly and partially understand the concept of ownership of words or at least how to use these words in an acceptable manner, believing that "combining the sentences from different sources not only help them to get the meaning across but also assist them in using correct academic language" (Song-Turner, 2008, p. 44).

Attitude toward plagiarism is "whether or not the action or practice of plagiarism perceived by students - rather than the institution they are studying in - is undesirable and how they react to it" (Powell, 2012, p. 8). According to the *expectancy value model* (Fishbein, 1963), a person's attitude toward something is usually a function of that person's belief and the evaluative aspects of that belief. Besides, to develop an attitude toward plagiarism, the students need to be aware of it in the first place. At the same time, "perception and awareness are two sides of a coin that affect the judgment and the action of an individual, as the awareness and perception level of researchers have serious effects on their involvement in plagiarism" (Idiegbeyan-ose, Nkiko, & Osinulu, 2016, p. 4). In his *Theory of Perception:*

Analysis and Objections, Huemer (2001) also stressed that "perception is the directed awareness of external reality which leads to non-inferential knowledge of that reality" (p. 145).

In the absence of a valid instrument, the knowledge of Iranian academic community including Iranian researchers, university professors and graduate students about plagiarism and copyright infringement has usually been evaluated unsystematically. Regardless of the focal attention occasionally paid to plagiarism in higher education, it has not been properly and consistently addressed in Iran (Yasami & Yarmohammadi, 2014). Meantime, while the scientific publications by Iranian researchers in international journals severely suffer from the considerable loopholes in plagiarism detection and prevention techniques, the number of research studies on plagiarism in higher education does not seem adequate (Astaneh & Masoumi, 2011; Yasami & Yarmohammadi, 2014). Even if some estimation has been arrived at, the studies generally focused on the contributing factors to committing plagiarism by Iranian academic writers (cf. Poorolajal, Cheraghi, Irani, Cheraghi & Mirfakhraei, 2012), whereas evaluating the Iranian academics' knowledge of plagiarism and their sociocultural belief system towards scientific forgeries seems neglected. On the other hand, many of the released questionnaires for assessing plagiarism lack valid psychometric features and the acquired information by such plagiarism assessment tools is usually disputable (Harris, 2001; Idiegbeyan-Ose et al., 2016; Madray, 2007). Meanwhile, since plagiarism is mostly a culture-bound misconduct (Robelen, 2007), most available questionnaires, overshadowed by Western social and ethical values and belief systems, cannot provide reliable information and a precise picture of this issue in Iranian academic environment.

To compensate the numerous drawbacks in the previously developed plagiarism questionnaires (e.g., Harris, 2001; Idiegbeyan-Ose et al., 2016; Rennie & Crosby, 2001), the present study attempted (a) to design, develop and validate a Sociocultural Plagiarism Questionnaire, domesticated to Iranian social norms while realistically addressed to the Iranian respondents' grasp of plagiarism, and (b) to improvise an operational scale to predict the odds of committing plagiarism by Iranian academic writers.

Method

Design of the Study

This study had a QUAL-QUAN mixed-methods research design (Dörnyei, 2007). In Phase 1, after a compensative review of literature, a conceptual framework for the Iranian culture-

bound plagiarism questionnaire was developed, followed by piloting and validating procedures with two research samples of M.A. graduates and M.A. students, in Phase 2.

Phase 1: Development of a Theoretical Framework

In Phase 1, a thorough review of literature (Gururajan & Roberts, 2005; Mavrincac, Brumini, Bilić-Zulle & Petrovečki, 2010; Schrimsher, Northrup & Alverson, 2011, to name a few) led to identifying several themes and components of plagiarism construct. The selected components were grouped to reach convergence and initially named as awareness, attitude and perception which generated a theoretical framework for plagiarism. The components were transformed into a questionnaire with initial 47 items. The 39 items were rated on a 5-point Likert scale ranging from (a) strongly disagree, (b) disagree, (c) I don't know, (d) agree and (e) strongly agree. Moreover, eight multiple-choice items were constructed in terms of short authentic paragraphs and the corresponding paraphrased texts, each followed by the three options of (a) plagiarism, (b) no plagiarism and (c) I don't know. The participants were required to recognize the tracks of plagiarism in the paraphrased texts (if any) and choose one option. The initial draft of the questionnaire was designed with three components as following:

Component I (15 items) in the questionnaire construed the participants' awareness of plagiarism rules. The items representing this theme were adapted from the available plagiarism awareness questionnaires (Abukari, 2016; Madray, 2007; Song-Turner, 2008) and modified to suit the Iranian target academic population. For example, item 10 in this component was modified as *copying an artistic work like a painting or a piece of music is plagiarism*, since this is a common infringement behavior in Iran.

Component II (17 items) in the questionnaire represented the participants' attitude towards plagiarism, adapted from the Attitude toward Plagiarism Questionnaire developed by Mavrincac et al. (2010) and modified to address the Iranian academic audience. For example, item 22 was *Copying another person's thesis or dissertation which is available online is plagiarism*, which itself is the common violation of copyright by many Iranian university students.

Component III (15 items) in the questionnaire conceptualized the participants' perception of plagiarism which was adapted from the available questionnaires in the literature (Awdry & Sarre, 2013; Ryan, Bonanno, Krass, Scouller & Smith, 2009; Yang & Lin, 2010) and modified to target the Iranian university students. Item 24, for example, was *Short deadlines do not give me the right to plagiarize a few lines* which is known as a common

rationale for plagiarism among Iranian academic writers. Also, the perception component was further operationalized with eight multiple-choice items (Item 40 to 47) in the plagiarism questionnaire. They contained eight authentic paragraphs along with their corresponding paraphrased texts to tap the participants' recognition of different cases of plagiarism. The participants were required to decide among the three options of (a) plagiarism, (b) no plagiarism, and (c) I don't know.

Perception component had two sets of Likert scale and multiple-choice items. The aim of the Likert scale items was to examine the perceived seriousness of plagiarism by the participants. Meantime, since in Webster's *Ninth New Collegiate Dictionary* (1983), perception is defined as "awareness of the elements of the environment through physical sensation" (p. 546), the second set of perception items focused on the respondents' perception course of action and through tangible examples. The current researchers' justification for including a battery of items for perception component was confirmed in the literature (Keck, 2014; Mahmood, 2009, Maxwell, et. al., 2008).

Phase 2: Piloting and Administering the Newly-developed Plagiarism Questionnaire

To determine the face and content validity of the newly-developed plagiarism questionnaire, three experts in survey/questionnaire construction along with two ELT university professors independently reviewed the items and removed the ambiguous, unnecessary or overlapping ones. For instance, the item *Plagiarizing is worse than cheating in an exam* was suggested as a fallacy and removed from the questionnaire. Likewise, the item *A plagiarized paper does not always make harm to scientific community* was modified to *Plagiarism is harmful to the academics' willingness to do research and to publish reports* to become self-evident.

Next, a sample of 145 female (64.7%) and 79 male (35.3%) M.A. graduates and graduate students (n = 224) was selected for piloting the newly-designed questionnaire. They were selected from Shahid Bahonar University of Kerman (n = 96), Islamic Azad University, Kerman Branch (n = 79), and Vali-e-Asr University of Rafsanjan (n = 49). The composition of university majors was Applied Linguistics (n = 70, 31.3%), English Translation (n = 60, 26.8%), English Literature (n = 54, 24.1%), and General Linguistics (n = 40, 17.9%). After piloting the semi-final draft of questionnaire, some items with negative statements were modified to prohibit semantic confusion. Next to modifying/omitting 11 too vague and too broad items, the final 36 items entered the administration and construct validation procedures.

The finalized questionnaire was administered with a group of 168 female (58.3%) and 120 male (41.6%) M.A. graduates and graduate students ($n = 288$) to examine its construct validity. The participants were selected from Shahid Bahonar University of Kerman ($n = 53$), Islamic Azad University, Kerman Branch ($n = 49$), Islamic Azad University, Sirjan Branch ($n = 50$), Vali-e-Asr University of Rafsanjan ($n = 25$), Islamic Azad University, Yazd Branch ($n = 55$) and Islamic Azad University, Bandar Abbas Branch ($n = 56$). The composition of university majors was Applied Linguistics ($n = 108$, 37.5%), English Translation ($n = 92$, 31.9%), English Literature ($n = 51$, 17.7%), and General Linguistics ($n = 37$, 12.8%).

A non-random convenience method of sampling was used to recruit only the participants who were available and willing to partake in this study. The writing section of Oxford Quick Placement test (2001, Version 1) was administered and co-rated by the researchers as the English placement test in this study. The researchers made sure that the participants had already passed at least one research methodology course in English.

The current researchers' justification for narrowing the scope of the study down to only English M.A. students and M.A. graduates was that since they were commonly required to use English textbooks and resources in their university courses and it was a necessity for them to make citations according to American Psychological Association (APA) or Modern Language Association (MLA) styles of publishing, they could provide the researchers with firsthand and more reliable data. The collected questionnaires with missing data ($n = 20$) were excluded from the study. The completion rate was 93.7%. The calculated internal consistency of the questionnaire items, except for the final 5 multiple-choice items, was Cronbach's Alpha = 0.730, which indicated the proper reliability of the developed instrument for future studies.

Results

The 36 items in the newly-designed questionnaire were subjected to Exploratory Factor Analysis (EFA) using SPSS 21. Before performing EFA, the suitability of the data was assessed (Table 1). Kaiser-Meyer-Olkin (KMO) test was 0.969 ($df = 595$, $p < .000$) which was higher than the recommended value of $KMO > 0.6$ (Kaiser, 1974). Similarly, Bartlett's Test of Sphericity (Bartlett, 1954) reached the statistical significance, indicating that the degree of inter-correlation among the items was suitable for EFA procedure.

Table 1. *Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	Bartlett's Test of Sphericity	Sig.
0.969	$\chi^2_{595}=1343.974$	0.000

Next, the list of extracted commonalities for the questionnaire items which reflected the common or shared variance in the data structure was analyzed to find the proportion of variance explained by the underlying components (factors). According to Tabachnick, Fidell and Ullman (2007), the index of 0.32 is the minimum loading of an item in a test, which equates to approximately 10% overlapping variance with other items. Therefore, in the present study, the minimum item loading was set as 0.30.

Table 2. *Total Variance Explained*

Component	Total	% of Variance	Cumulative %
1	3.344	9.555	9.555
2	2.140	6.113	15.668
3	1.999	5.713	21.380
4	1.960	5.600	26.980

Despite the initial EFA resulted in 14 components (factors) with eigenvalues higher than 1, based on Kaiser’s criterion components, a visual inspection of the scree plot (Figure 1) informed the researchers that the first 4 components accounted for the total variability in the collected data.

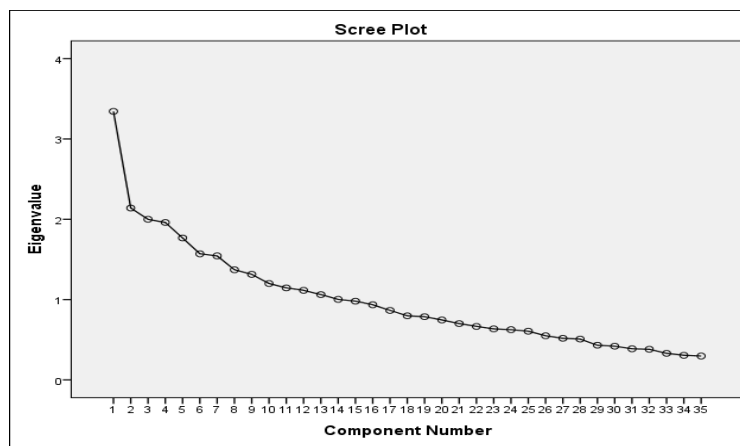


Figure 1. *Scree Plot of the Eigenvalues and the Items of the Plagiarism Questionnaire*

The conducted EFA using Varimax Rotation also suggested that the 4-factor plagiarism model accounted for 26.98% of the total variance which was considered as appropriate in this study. Moreover, considering the interpretability criteria, the conceptual interrelation among

the items in the questionnaire was more practical with the first four components. Therefore, as Table 2 displays, only the cumulative percentage of 26.980 and the total four factors with eigenvalues of higher than 1 were further examined. Next, the items were distributed among the factors with the highest loadings. The content of the items was examined to make sure that the items in each factor conceptually fit together and those factors were named afterwards. Since the items 19 to 26 questioned about the participants' social beliefs and cultural approach to plagiarism, the component was named as *Sociocultural Beliefs*. Consequently, the final version of this questionnaire consisted of four components (i.e., awareness, attitude, sociocultural beliefs, and perception) with 31 Likert-point and 5 multiple-choice items (Appendix 1).

After exploring the components of the newly-developed plagiarism questionnaire, a Confirmatory Factor Analysis (CFA) was performed to consolidate the developed plagiarism model. Therefore, using Analysis of Moment Structures (AMOS), the researchers' intention was to determine whether the factorial structure of the questionnaire required any further modification. Statistical results showed that the magnitudes of loaded factors ranged from 0.44 to 0.85, while all were statistically significant at the 0.05 α -level (Table 3).

Table 3. *Standardized Factor Loadings*

Factors	Item	Estimate	R ²	t	p-value
Awareness	Item1	.631	.398	6.298	.001
	Item3	.579	.335	6.035	.001
	Item4	.638	.407	6.347	.001
	Item5	.594	.353	6.119	.001
	Item6	.601	.361	6.140	.001
	Item7	.563	.317	5.985	.001
	Item8	.511	.261	5.681	.001
	Item13	.680	.462	6.549	.001
	Item18	.587	.398	6.236	.001
	Item30	.443	.335	-	.001
Attitude	Item 2	.567	.321	7.860	.001
	Item 11	.600	.360	9.609	.001
	Item 14	.679	.461	8.930	.001
	Item 16	.705	.497	9.158	.001
	Item 20	.685	.469	8.986	.001
	Item 22	.729	.531	9.302	.001
	Item 23	.640	.410	8.490	.001
	Item 28	.596	.355	-	.001

Factors	Item	Estimate	R ²	t	p-value
Sociocultural Beliefs	Item 9	.497	.247	7.120	.001
	Item 10	.585	.342	8.659	.001
	Item 24	.574	.329	9.605	.001
	Item 15	.647	.419	8.764	.001
	Item 17	.699	.489	9.888	.001
	Item 19	.700	.490	9.964	.001
	Item 21	.858	.736	10.645	.001
	Item 25	.628	.394	-	.001
Perception	Item 31	.696	.484	6.867	.001
	Item 32	.759	.576	7.764	.001
	Item 33	.650	.423	7.440	.001
	Item 34	.796	.634	7.924	.001
	Item 35	.516	.266	-	.001

The standardized loadings in Table 3 show that all items loaded well on the four identified components, for example, Item 13 loaded at 0.680 on Awareness, Item 22 at 0.729 on Attitude, Item 21 at 0.858 on Sociocultural Beliefs, or Item 34 at 0.796 on Perception. Therefore, CFA loadings confirmed that each of the four components was operationally defined by the intended items in the questionnaire. Next, the goodness of the fit for the individual themes (factors) in the questionnaire was measured.

Goodness-of-the-fit for Component 1: Awareness

Examination of the fit statistics for Awareness component presented in Table 4 proved that statistical data met the criteria for the model fit of the questionnaire. Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) were 0.970 and 0.916, respectively, indicating a good fit. All other indices also had satisfactory values, supporting a well-fit model.

Table 4. *Fit Statistics for the Awareness Component*

Indices	Acceptability	Reported Value
Root Mean Square Error of Approximation (RMSEA)	<.08 acceptable	.068
Normed Chi-Square (CMIN/DF)	<5 acceptable	2.391
Goodness of Fit Index (GFI)	>.90 acceptable	.970
Adjusted Goodness of Fit Index (AGFI)	>.90 acceptable	.916
Comparative Fit Index (CFI)	>.90 acceptable	.973
Normed Fit Index (NFI)	>.90 acceptable	.956
Tucker Lewis Index (TLI)	>.90 acceptable	.940
Incremental Fit Index (IFI)	>.90 acceptable	.974

The parameter estimates presented in Figure 2 illustrated the structural modeling of Awareness in the plagiarism questionnaire. Accordingly, 10 observed variables have formed

the Awareness component, whose parameter estimates are given in the model (Figure 2). Item 1 was assigned as the first indicator variable of Awareness factor and its loading was 0.63. Item 13 had the largest (0.68) and Item 30 the smallest loading (0.44) on the Awareness indicators.

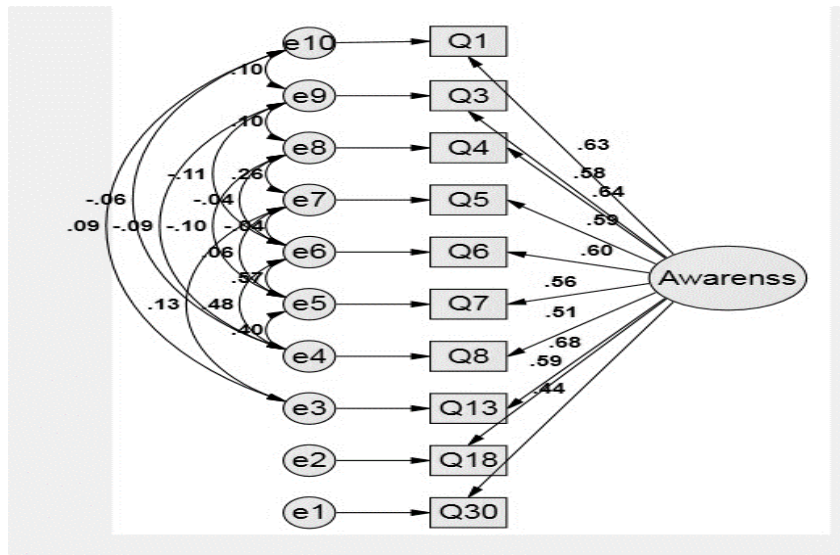


Figure 2. Model Fit for Awareness

Goodness-of-the-fit for Component 2: Attitude

As Table 5 indicates, the fit statistics for Attitude component met the criteria for the model fit. GFI and AGFI were 0.985 and 0.970, respectively, indicating a good fit model (Figure 3). Other indices also had satisfactory values, supporting a well-fit model.

Table 5. Fit Statistics for Attitude Component

Indices	Acceptability	Reported Value
Root Mean Square Error of Approximation (RMSEA)	<.08 acceptable	.000
Normed Chi-Square (CMIN/DF)	<5 acceptable	.987
Goodness of Fit Index (GFI)	>.90 acceptable	.985
Adjusted Goodness of Fit Index (AGFI)	>.90 acceptable	.970
Comparative Fit Index (CFI)	>.90 acceptable	1.000
Normed Fit Index (NFI)	>.90 acceptable	.979
Tucker Lewis Index (TLI)	>.90 acceptable	1.000
Incremental Fit Index (IFI)	>.90 acceptable	1.000

Figure 3 illustrates the structural modeling for Attitude component. The eight observed variables forming the Attitude component and their parameter estimates are illustrated. Item 2 was assigned as the first indicator variable of Attitude and its loading was 0.57. Item 22 had

the greatest load (0.73) and Item 2 had the smallest loading (0.57) among the Attitude indicators.

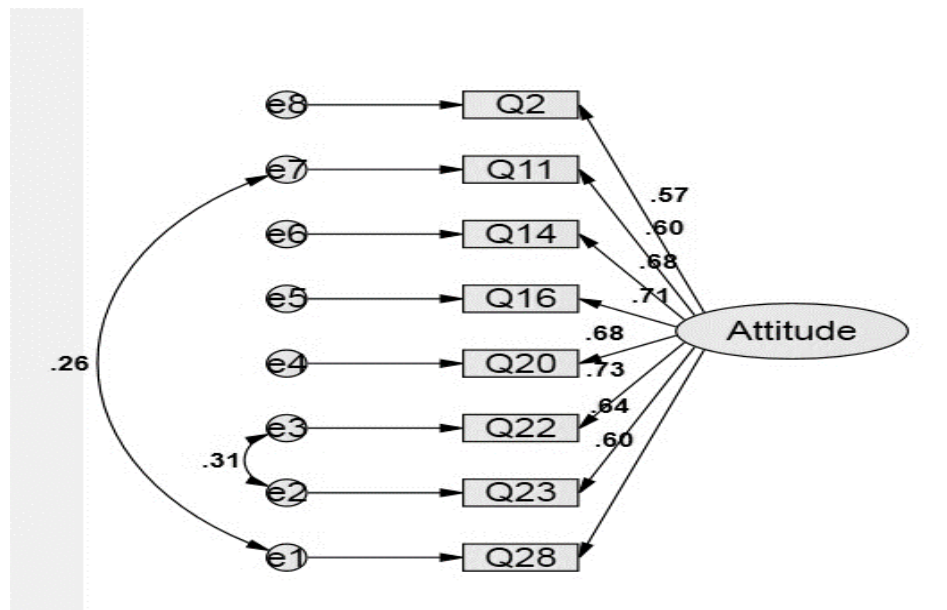


Figure 3. Model Fit for Attitude

Goodness-of-the-fit for Component 3: Sociocultural Beliefs

The study of the fit statistics for Sociocultural Beliefs in Table 6 proved that in this factor once again the statistics met the criteria for the model fit. GFI and AGFI were 0.996 and 0.985, respectively, indicating a good fit. All other indices also had satisfactory values, suggesting a well-fit model.

Table 6. Fit Statistics for Sociocultural Beliefs Component

Indices	Acceptability	Reported Value
Root Mean Square Error of Approximation (RMSEA)	<.08 acceptable	.000
Normed Chi-Square (CMIN/DF)	<5 acceptable	.492
Goodness of Fit Index (GFI)	>.90 acceptable	.996
Adjusted Goodness of Fit Index (AGFI)	>.90 acceptable	.985
Comparative Fit Index (CFI)	>.90 acceptable	1.000
Normed Fit Index (NFI)	>.90 acceptable	.994
Tucker Lewis Index (TLI)	>.90 acceptable	1.017
Incremental Fit Index (IFI)	>.90 acceptable	1.006

Figure 4 represents the structural modeling for Sociocultural Beliefs. Eight observed variables form sociocultural beliefs and their parameter estimates are given (Figure 4). Item 9 was assigned as the first indicator variable of this factor and its loading was 0.50. Item 21 had

the greatest (0.86) and Item 9 the smallest loading (0.50) among the sociocultural beliefs indicators.

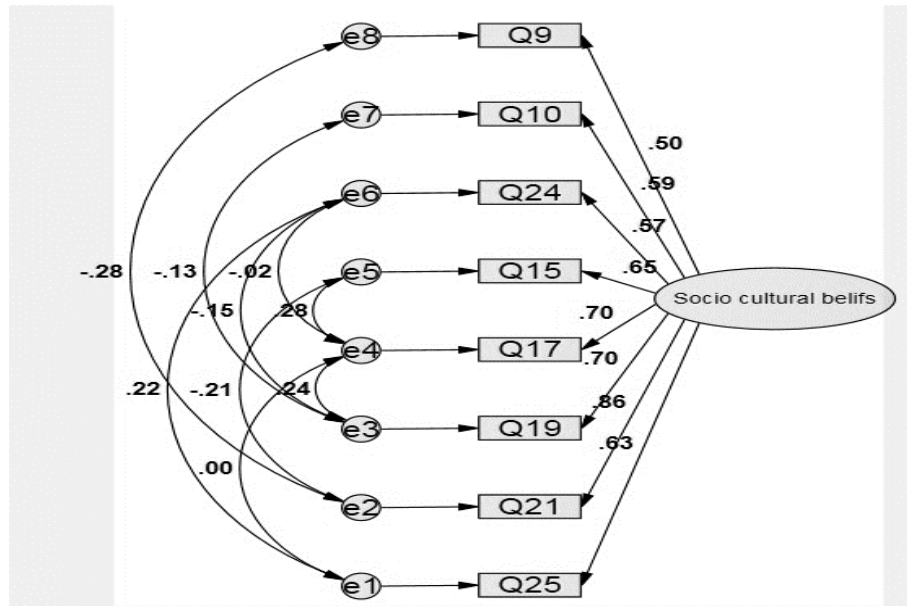


Figure 4. Model Fit for Sociocultural Beliefs

Goodness-of-the-fit for Component 4: Perception

Finally, the study of the fit statistics for Perception in Table 7 proved that once more all the statistics met the criteria for a model fit too. GFI and AGFI were 0.999 and 0.994, respectively, indicating a good fit. The rest of the indices also had satisfactory values, suggesting a well-fit model.

Table 7. Fit Statistics for Perception Component

Indices	Acceptability	Reported Value
Root Mean Square Error of Approximation (RMSEA)	<.08 acceptable	.007
Normed Chi-Square (CMIN/DF)	<5 acceptable	.398
Goodness of Fit Index (GFI)	>.90 acceptable	.999
Adjusted Goodness of Fit Index (AGFI)	>.90 acceptable	.994
Comparative Fit Index (CFI)	>.90 acceptable	1.000
Normed Fit Index (NFI)	>.90 acceptable	.999
Tucker Lewis Index (TLI)	>.90 acceptable	1.915
Incremental Fit Index (IFI)	>.90 acceptable	1.003

Figure 5 shows the structural modeling for Perception. The Perception component had five indicators and Item 31 was assigned as its first indicator with the loading of 0.70. Item 34 and Item 35 had the highest (0.80) and the lowest (0.52) loadings, respectively.

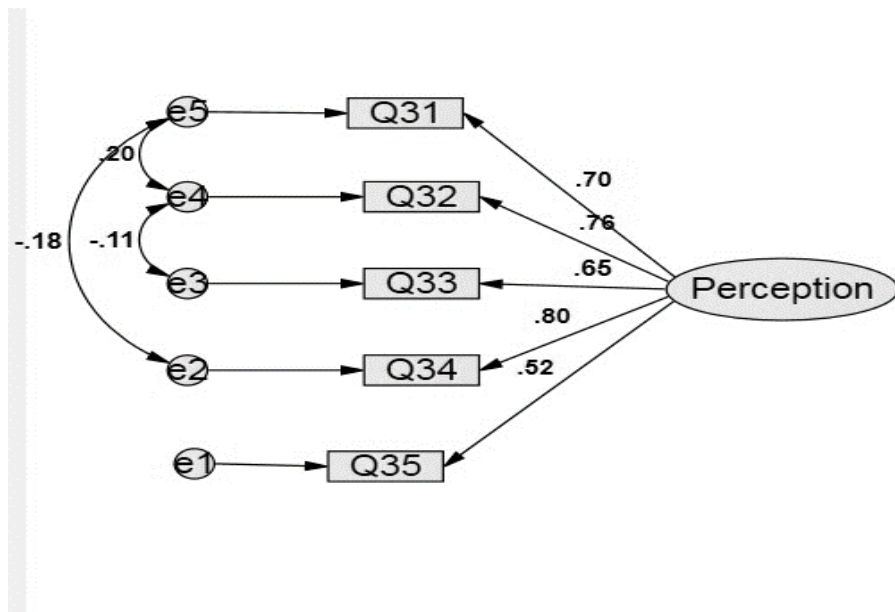


Figure 5. Model Fit for Perception

As already discussed, the 5 multiple-choice items (Item 32 to 36) of the Sociocultural plagiarism questionnaire addressed the perception component and contained five authentic paragraphs along with their paraphrased texts to practically examine the participants' perception towards different cases of plagiarism. The participants were required to look for the traces of plagiarism and to choose among the three options of (a) *plagiarism*, (b) *no plagiarism* and (c) *I don't know*.

Discussion

The present study was conducted to fill in the literature gap by developing a valid instrument for assessing the Iranian academics' knowledge of plagiarism and their informed practice in EFL context. This attempt led to a Sociocultural Plagiarism Questionnaire with four components of Awareness, Attitude, Sociocultural Beliefs and Perception, with 36 items. Relying on statistical analysis, a new theme of *Sociocultural Beliefs* was explored. Sociocultural belief system was proved to actively contribute into the Iranian academics' sensitivity to plagiarism in English academic writing. This component was named as Sociocultural Beliefs, since it conceptually represented the impact of the social values and normative attitude of the Iranian academic community to avoid/commit plagiarism.

As an example, items 20 and 21 in the questionnaire, focused on assessing the participants' beliefs about allowing either a friend to use their projects or to copy a friend's paper with his/her consent but without citation. Answers to these questions can be extremely

culture-bound since they reflect the priority that Iranian academic writers would give to their personal relations and friendship over copyright regulations. As stated by Hall (1976), in Western societies, people are sensitive to follow external rules and make decisions based on directions, protocols, facts, and logic, while in Eastern societies, people have more emotional concerns and make decisions based on their personal relationship. Rezanejad and Rezaei (2013) similarly pointed it out that "many Iranians regard their friendship much more important than adhering to the rules and disciplines of copyright" (p. 51). On the other hand, since concepts like intellectual property, ownership, authorship and plagiarism have generally originated in Western culture and carried its social and cultural specifications, they are not usually cross-culturally applicable (Pennycook, 1996). Resubmitting one's assignment as a new/original work and considering it as a common and acceptable practice (Item 19), or ignoring plagiarism in a paper, if its original parts are of high scientific value (Item 25), can be considered as the function of Iranian academic writers' sociocultural disbeliefs about plagiarism. Likewise, Arizavi, Jannejad and Choubsaz (2018) confirmed that many Iranian academics and authors consider plagiarism as an unavoidable part of their academic research reports.

Item 26 of the questionnaire examined those social values attributed to plagiarism which usually interfere with the Iranian academics' system of values. It examined whether committing plagiarism is seen as a serious outlaw or it is considered as a common malpractice among the academics in their L2 writing. This is while Zafarghandi, Khoshroo and Barkat (2012) suggested that academics in East World societies generally believe that "knowledge belongs to all and what an author says is accepted as a fact and does not need to be attributed" (p. 71). Underestimating the offensive nature of plagiarism and the importance of observing the ethical values in academic writing by making different excuses for committing plagiarism, such as short deadlines (Item 24) or legitimacy of copying something which has already been copied (Item 22) can be among other sociocultural misconceptions of Iranian L2 academic writers. To sum up, "plagiarism is a complicated social construct which depends on a particular location and place", while "cultural background has also been recognized as a main cause of problematic source misuse" (Arizavi, et. al. 2018, p. 21). Therefore, to develop a valid plagiarism questionnaire to be used in the L2 Iranian academic context, assessing the sociocultural beliefs of the participants seemed a necessity, since "in drafting a plagiarism policy, we must remember that its readers come from a variety of cultural contexts, across which the definitions of new and original, and the value placed upon them may change" (Price, 2002, p. 95).

Conclusion and Implications

Relying on the findings in this study, Iranian L2 academic community has adequate awareness of different forms of plagiarism, citation techniques, paraphrasing and other instances of copyright infringement. Therefore, it seems that the preliminaries for ethical codes and rules of plagiarism are adequately provided in Iranian educational contexts in general, and in L2 context in particular. However, as far as applying such protocols as citing a text by using quotation marks or giving page number is concerned, the insufficiencies in Iranian L2 writers are indicative of poor practice of plagiarism. Findings of the study also proved that the Iranian L2 academic writers had a vivid perception toward plagiarism as the majority of them strongly agreed to the eight out of 10 Perception items in the questionnaire. They confirmed the negative effects of plagiarism on research studies and most of them considered forging other people's words as a serious crime. Likewise, the majority of the participants agreed upon using plagiarism detection software and evaluating one's writing before the reviewers. The analyzed data on their responses to the multiple-choice plagiarism scenario questions also indicated that the Iranian MA graduates/graduate students of English majors were familiar enough with plagiarism in practice. However, their perception of the severity of plagiarism seemed to be largely distorted, as findings suggested that more than half of the participants supported lenient punishment for the graduate students committed plagiarism in their academic writing assignment.

When it came to the participants' attitudes towards plagiarism, the findings demonstrated Iranian L2 academic writers' relatively neutral attitudes. It seemed the seriousness of plagiarism was neglected by the participants and despite their direct disapproval of committing plagiarism in L2 academic contexts, they still made exceptions and found excuses such as difficulty of writing a scientific paper in L2 on a short deadline without plagiarism. Analysis of the collected responses to *sociocultural belief* items indicated the participants' indirect tendency to commit plagiarism. The findings suggested that the Iranian academics' normative sociocultural beliefs about plagiarism could be the major cause of their frequent resort to this academic misconduct. Hence, a trace of conflict was transparent between the sociocultural norms and the required sensitivity to plagiarism in Iranian scholars' L2 academic writing. Meanwhile, findings indicated an unfortunate lack of appreciation for intellectual properties, authorship, and copyright in Iranian academic writers. As properly stated by Ayoubi (2017), [T]he copyright law of Iran is outdated, fragmented and does not provide clear and effective enforcement mechanisms to protect the interests of right

holders. On the international level, Islamic Republic of Iran has not joined any of the main copyright agreements which means that the rights of foreign authors and copyright owners are not protected in Iran (p. 1).

Therefore, it seems that in addition to improving the Iranian L2 writers' kin awareness, right attitude, and deep perception towards plagiarism, their sociocultural *dis*beliefs to the copyright and illegal academic misconducts in scholarly activities need to be fundamentally reshaped. The newly-designed Sociocultural Plagiarism Questionnaire is hoped to properly equip the Iranian university professors, thesis supervisors, executives, materials developers, and policymakers with a valid instrument to assess their university graduates/graduate students' understanding of plagiarism as a safeguard against this type of unethical behavior. Moreover, the obtained data in this study can assist the educators to devise remedial tutorial courses – both in L1 and L2 - to minimize the odds of plagiarism commitment and the possibilities to avoid it in Iranian academic writing. It is noteworthy that the data in this study were collected from a large number of participants; however, a non-random sampling procedure was conducted to select only Iranian MA graduates/graduate students of English major. Therefore, the researchers are skeptical about the findings to be divergent in the further research with participants of non-English majors, since their written academic products would mostly target the Persian-speaking audience whose sociocultural beliefs might mirror the common negligence of the copyright rules and codes of plagiarism in Iran.

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Appendix

The Sociocultural Plagiarism Questionnaire

- Please attempt the following questions by putting an “X” in the box that best indicates the extent to which you agree or disagree with the statement.
- The information in this study will be totally confidential and used only for research purposes

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Copyright is a legal device that gives the creator of a literary, artistic, musical, or other creative work the sole right to publish and sell that work.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. Changing the words of a document and using it without citation is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. Paraphrasing some parts of a book or an article without citing the source is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. Summarizing some parts of a book or an article without citing the source is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. Copying a text with citation but without quotation marks and page number is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. Copying different sources and combining them together without citing the original sources is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. Group working on a project when it was supposed to be completed individually is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. Working on a project as a team and presenting the results individually is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. It is illegal and unacceptable to use one's previously published work without citation to complete the current work.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. Copying an artistic work like a painting, or piece of music is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11. Although the information on the Internet is for the use of all people, copying a few sentences from an online and free website requires citation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
12. Using other people's ideas without citing them is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
13. Copying another person's thesis or dissertation, which is available online, is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
14. Copying the sources which are available online is as serious as copying them from printed sources.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15. Although self-plagiarism seems harmful to no one, it is punishable in all cases.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16. It possible to write a scientific paper without any trace of plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
17. Even if I do not have any opinion of my own about a topic, I am not allowed to copy others without citation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
18. Those who claim that they will never plagiarize, have to avoid it in practice.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
19. Making some changes in my already submitted assignment and resubmitting it as a new work is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
20. Letting somebody else use my project or term paper and re-submit it, is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
21. If my friend allows me to copy from his/her paper, without mentioning his/her name, it is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
22. Copying another person's thesis when I know she/he has copied it from other sources is plagiarism.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
23. Novice writers should not receive milder punishment for their plagiarism compared to more experienced writers.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
24. Short deadlines do not give me the right to plagiarize.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
25. Plagiarizing a paper is not allowed, even if the original parts of that paper are of great scientific value.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
26. Copying other people's works without citation is an unethical but common mistake.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
27. Plagiarism is harmful to the most academics' tendency in doing research and publishing articles.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
28. Although plagiarism is taking other people's words rather than properties, it should still be penalized as a serious offense.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
29. After writing a paper, an article or a thesis, I should check my work to see if it involves plagiarized parts or not.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
30. Using plagiarism checker software is a good way to see if a piece of work has plagiarized parts or not.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
31. Committing plagiarism by a graduate student is a serious violation of the academic writing rules and the guilty student should be suspended or even expelled.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

