# CHAPTER 25. PRODUCING SCHOLARLY TEXTS: WRITING IN ENGLISH IN A POLITICALLY STIGMATIZED COUNTRY

Mehdi Riazi Macquarie University

With English increasingly acquiring the academic lingua franca (Flowerdew, 1999a, 1999b) status in the scholarly text production arena and the implication this will have for researchers in non-Anglophone countries to publish in English, research on multilingual scholars writing in their L2 (English) has received considerable attention from academic writing researchers over the last couple of decades. These studies have addressed a range of issues related to scholarly writing in L2 and have contributed to our understanding of how personal, textual, and contextual factors foster or constrain text production in English. Leki, Cumming, and Silva (2008, p. 57) have summarized research studies on professional L2 writing in English over the last 25 years into the categories of text analysis, writing processes and strategies of novice and successful L2 authors, first person accounts by L2 scholarly authors writing in English, case studies of bilingual authors, and the variety of communities that these scholars envision as their audience. The contexts represented in the studies reported in Leki et al. (2008) include Spanish (St. John, 1987), Scandinavian (Jernudd & Baldauf, 1987), Hungarian (Medgyes & Kaplan, 1992), Hong Kong (Flowerdew, 1999a, 1999b, 2000), Danish (Phillipson & Skutnabb-Kangas, 2000), Hungarian, Slovakian, Spanish, Portuguese (Curry & Lillis, 2004; Lillis & Curry, 2006, Lillis & Curry, 2010), Chinese (Liu, 2004), Japanese (Casanave, 1998; Okamura, 2006), Armenian (Sahakyan, 2006), Polish (Duszak & Lewkowicz, 2008), and Turkish (Buckingham, 2008). These studies are all from contexts and countries where no vivid and formally articulated political agony defines the political relation between English speaking countries and the countries in which the participants of studies were living and working. No sanctions are leveled against these countries, and scholars in these countries do not experience any restrictions accessing resources, networking with their colleagues in Anglophone countries, nor do they have any visa restrictions when travelling

to Anglophone countries. Even when it comes to socio-political and ideological issues related to L2 text production mostly represented in the works of Canagarajah (1996, 2001, 2002, 2005), Pennycook (1997, 1999, 2001), and Benesch (1996, 2001), the peripheral participants or contexts studied are not politically in conflict with the Anglophone center.

It is therefore important to study the pattern of scholarly text production in English in countries like Iran in which political relations with Anglophone countries have been dramatically and diametrically changed over the past decades. There is now a high wall of distrust between Iran and the West, particularly English speaking countries, which has escalated over the last three decades after the 1979 Islamic revolution in Iran. On the one hand, the West considers Iran as an outlier and as a threat in a presumably defined world order so that the US and the UK have not been reluctant in hiding their desire of collapsing the Islamic regime even through a military attack. Such a position on the part of the US and the UK has been accounted for by different reasons; the most salient has been the debate on nuclear energy and the possibility of Iran's access to nuclear weapons. The recent UN sanctions on Iran mobilized by the US and the UK and endorsed by other members of the UN Security Council have been meant to force the regime to change its position before giving more impetus to those who support a military attack. On the other hand, based on historical events and documents, Iran accuses the West and particularly the US and the UK for a pervasive hegemony over the country for many years. This hostility between the two sides has been realized in the formulation of socio-cultural and economic policies at all levels within each camp, resulting in Iran being ostracized in the world's political scene. The term "stigmatized" in the title of the chapter is meant to convey this situation. Stigma as defined by Goffman (1967) is a study of situations where normal and abnormal meets, and of the ways in which a stigmatized person, in this case country, can develop a more positive social and personal identity.

This study, therefore, set out to investigate how scholarly text production in English is perceived by Iranian scholars in such a conflicted context and how it is represented in the global knowledge production and dissemination. The study seeks to explore the following two research questions:

- 1. What has been the share of post-revolution Iranian scholars in the global knowledge production and dissemination as realized in the academic English publications indexed in the Web of Science (WOS)?
- 2. How do Iranian scholars perceive their participation in global knowledge production and dissemination through publishing papers in international English-medium journals?

The chapter is organized in three sections. First, the pattern of post-revolution knowledge production and dissemination in Iran is presented. Second, Iranian scholars' perceptions of publishing papers in international English-medium journals will be discussed. Finally, the chapter ends with discussion and concluding remarks.

# KNOWLEDGE PRODUCTION AND DISSEMINATION IN POST-REVOLUTION IRAN

Nouruzi, Hassanzadeh, and Nourmouhammadi (2008) have gathered and analyzed the share of Iranian scholars in the world's production and dissemination of knowledge over a period of 15 years (1993-2007). They have stated the following reason for choosing this 15-year time period:

- 1. 1993 marks the end of the first 5-year development plan (1989-1993) after the revolution. The next 5-year development plans (the 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup>) continued after the first one, with the fourth one completed in 2007.
- 2. 1990 marks the end of the Iraq-Iran war and so any change and growth in the country's scientific position is expected to show up in subsequent years.
- 3. Though there were some developments in the scientific publications before 1993, they were unstable.

Table 1 (Nourouzi et al., 2008, p. 38) presents the number of Iranian scholars' publications as indexed in Web of Science (WOS) over the 15 years (1993-2007).

As Table 1 indicates there has been an exponential rise in Iran's scientific publications over the 15 years as presented in Figure 1. The rate of publications as indexed in WOS increased thirty times from 310 in 1993 to 9061 in 2007.

Table 1. Iran's share of scientific publications over 15 years (Source: WOS)

Year	1993	1994	1995	1996	1997	1998	1999	2000
No. of docs	310	377	470	598	682	1036	1204	1387
Growth (%)		21.61	24.93	26.96	14.04	51.91	16.22	15.2
Year	2001	2002	2003	2004	2005	2006	2007	
No. of docs	1735	2224	3283	3855	5582	6750	9061	
Growth (%)	25.09	28.18	47.62	17.42	44.8	20.92	34.24	

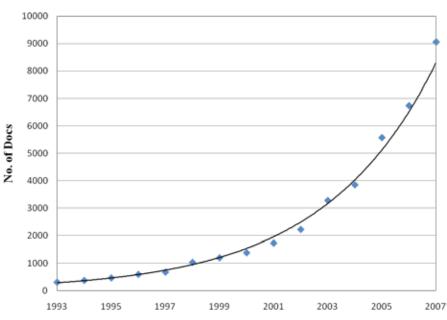


Figure 1. Number of documents over 15 years

These publications are extracted from three data bases of Science Citation Index Expanded (SCIE), Social Science Citation Index (SSCI), and Art and Human Citation Index (AHCI). Twenty fields of study including sciences (different areas of chemistry, physics, plant sciences, and mathematics), medicine and engineering accounted for 70.72 percent of the total indexed documents over five years (1998-2002). The other two general disciplines (social sciences, art and humanities) accounted for 29.28 percent of the indexed documents in WOS in this period. One hundred universities and institutions of higher education were involved in the trend of knowledge production over the 15 years. However, five pioneer universities in this list were the University of Tehran, University of Shiraz, University of Sharif, Tehran University of Medical Sciences, and Tarbiate Modaress University. This trend has more or less continued over the subsequent periods presented in Table 2.

Period	1993-1997 (2nd development plan)	1998-2002 (3rd development plan)	2003-2007 (4th development plan)
No. of docs	2437	7585	28531
Growth (%)		211.12	276.15

Table 2. Iran's share of scientific publications over its three development plans

Table 2 summarizes the information in Table 1 for the three five-year development plans. As can be seen in Table 2, the highest growth belongs to the 2003-2007, or the fourth development plan.

These publications comprise a variety of documents including full articles, conference abstracts, review papers, editorials, letters to the editor, book reviews, and some other genres. Among these, the highest rate belongs to the articles and conference abstracts respectively (Nourouzi et al., 2008) which together account for more than 90% of the total share. Table 3 presents the share of articles and conference abstracts in each period.

Table 3. Iran's share of published articles and conference abstracts over three periods

Period	1993-1997	1998-2002	2003-2007
	(2nd development plan)	(3rd development plan)	(4th development plan
No. of docs	2437	7585	28531
Articles	2124 (87.15%)	6804 (89.70%)	24469 (85.76%)
Conf. Abstracts	113 (4.63%)	563 (7.42%)	2962 (10.38%)

Web of Science indexes scientific publications published in 49 languages (Thomson Scientific, 2007). The scientific publications of Iran in WOS over the 15 years were published in five languages (1993-2002) and eight languages (2003-2007); among them, publications in English language had the highest percentage (over 99%). This is, of course, in line with the global trend of publishing in English (see, e.g., Curry & Lillis, 2010). A surprising point is that none of the Iranian publications in the WOS over the 15 years was in Persian. The journal articles were published in 30 journals, and only seven of them were Iranian journals indexed in WOS. The share of indexed Iranian journals in publishing Iranian scholars' articles was 3.2 percent. These journals, which publish articles only in English, all belong to sciences and engineering and none from the pattern of scholarly text production in Iran over the 15 years:

- 1. There has been an exponential increase in the rate of knowledge production and dissemination in Iran over the 15 years (1993-2007)
- 2. Almost all scholarly publications have been in English (over 99%) and published in English-medium journals and conferences
- 3. 90% of the scholarly texts indexed in WOS included journal articles and conference abstracts

- 4. Of the three general disciplines of sciences, social sciences, and art and humanities, sciences had the highest contribution (almost 71%) and the other two disciplines had a share of almost 29%
- 5. All seven Iranian journals of science and technology indexed in WOS publish papers in English, and none of the Persian or bilingual journals of humanities or social sciences is indexed in WOS

With this general pattern of knowledge production in Iran, the next part of the chapter presents a study to shed more light on this trend. The study investigated how Iranian scholars perceived publishing papers in English in international, indexed journals.

# IRANIAN SCHOLARS' ATTITUDES, PROBLEMS AND STRATEGIES TOWARD PUBLISHING IN INTERNATIONAL ENGLISH-MEDIUM JOURNALS

In response to an invitation letter, 72 faculty members (63 males and 9 females) of one of the five top universities of Iran with 550 academic staff agreed to participate in the study. All participants spoke Persian as their native language and used English as the language of their publications and paper presentations in international conferences. Their age ranged from mid-forties to late seventies and they were from various fields as presented in Table 4 within three general disciplines.<sup>1</sup> Sciences (39 participants), Social Sciences (15 participants), and Art and Humanities (18 participants) and with different ranks (31 assistant professors, 24 associate professors, and 17 full professors). Twenty-two participants (30.6%) had completed and obtained their PhDs from Iranian universities and fifty (69.4%) had completed their PhDs in other countries, mostly English speaking countries.

In terms of teaching experience, seven participants had five years' or less teaching experience; sixty had between six and 30 years' experience; and five had more than 30 years' experience. With regard to participants' experience of publishing in English language journals, 76.4% had already published several articles in these journals.

Interviews were conducted in Persian (participants' native language) to prevent any language barrier. The interviews were conducted in the participants' offices on their university campus. An attempt was made to create a friendly atmosphere and encourage the interviewees to freely express their experiences of publishing their research articles in English. The interviews lasted from nine to 82 minutes and all were recorded with participants' consent except in two cases where notes were taken. The interviews were then transcribed for codification

Sciences	Social Sciences	Art and Humanities
Agricultural Engineering	Economics	Architecture
Biology	Law <sup>2</sup>	History
Chemistry	Management	Language Teaching and
Engineering, Chemical	Political Science	Linguistics
Engineering, Civil	Psychology	Literature, English
Engineering, Computer	Sociology	Literature, Persian
Engineering, Electronic		Theology
Engineering, Mechanical		
Engineering, Metallurgical		
Geology		
Mathematics		
Physics		
Veterinary Sciences		

Table 4. Three major disciplines and their related fields based on ISI categorization

and content analysis. The codification and analysis of the interviews were done on the Persian transcripts; however, the selected quotes in the results section are the author's translation, which was checked with another colleague proficient in Persian and English languages for accuracy and consistency. Except for some minor discrepancies which were resolved through discussion, the whole translations proved to be accurate.

# RESULTS

Coded segments of the interview transcripts were extracted and organized around the three themes of attitudes, problems, and strategies.

# ATTITUDES

The category of attitudes had two subcategories: research publication and evaluation of research activities.

The majority of the participants (68, 94.4 %) viewed conducting and publishing research as knowledge production and dissemination in so far as the findings of their research could contribute to disciplinary knowledge. However, while they had a positive attitude towards research and publishing research reports, two distinct positions of whether they should publish in international or local journals were observed. The positions were advocated by sciences and humanities scholars respectively. The following quotes represent the positions.

> The publication of articles in foreign journals has different aspects. First you make your achievements accessible to the international community. A greater number of readers will read the journal and use the article. Publishing in international journals also represents the country's research activities and puts you in the international research showcase. In my opinion science and research is something international; therefore, different thoughts and ideas should be communicated between internal and external scientists. One of the best ways for this communication to happen is publishing articles in international journals (senior scholar from sciences).

I think one of the responsibilities of a university professor is to develop and disseminate science<sup>3</sup> and to contribute new knowledge to the field. While it is important to publish articles in English to achieve this goal, I do not believe, as some colleagues do, that we should only publish in English and in international journals; we should also pay attention to our own language and our internal journals. One way of developing a language is to have scientific publications in that language, and one way of improving the quality of local journals is to submit to and publish high quality articles in these journals. The role and position of our local Persian journals should not be downplayed. Too much emphasis on publishing articles in English and ISI journals will damage our self-esteem (senior scholar from humanities).

Participants from some fields of social sciences and humanities, including those from law and political sciences, sociology (women studies), history, theology, and Persian literature, believed that the evaluation of their research activities should not be done by the same criteria and the same committees as it is done for sciences or engineering, especially with regard to publications in English-medium journals as a criterion. These participants believed publishing in English-medium journals is not as easy for them as it is for their colleagues in sciences and engineering. The following two quotes are illuminative. Based on the correspondence I have had with some of the international journals, I have come to the understanding that they show some bias against my country and affiliation. As soon as they see the word "Iran" in my affiliation, they develop prejudgments which certainly affect their decision. Of course, I have been able to publish in some English-medium international journals, but they are sometimes not interested in the topics we work on and we cannot easily publish research on our local and national problems in those journals (early career scholar in social sciences).

While papers from scholars in other countries get accepted and published, when we send an article we do not know what their judgement would be. Will they read it? Will they be inclined to publish it? Sometimes, there is no answer, and in some cases it takes a long time to get a feedback. That is why we have problems with these foreign journals and I am not clear why there is a push on the part of the university on us to publish in international journals. Of course, part of this problem might be due to language problems. This is why I always try to edit my paper before sending it out. If the English of my article is not fluent or there are some language problems, it will surely influence the editor's decision. However, the problem is beyond language issues (mid-career scholar in humanities).

#### PROBLEMS

As relates to participants' problems in writing papers in English, again participants from the humanities believed it is more challenging to do research and write papers particularly in English in their discipline than it is in sciences.

> In humanities we deal with different value-laden complexities and problems, but experimental sciences are somehow value-free. Research projects in sciences are mostly done in laboratories and with substances, but this is not the case in humanities. Even our colleagues in other disciplines usually do not have any problem finding topics and doing research. However, in humanities this is not the case as sometimes

the topics and the findings conflict with the cultural norms and values of the society, and it is not easy for the researcher to conduct and publish research on such topics (mid-career scholar in humanities).

Apart from the above distinctive views, participants referred to problems related to research management, funding, equipment and facilities, materials, teaching load, administrative responsibilities, team-working, freedom of expression, and the overall context of doing research as barriers to their research and publication. The following quotes illustrate some of the problems.

> First there are problems with research management policies and the organization of research activities and publications are usually weak. We lack the necessary facilities, and the funding for research projects is low and distributed improperly. There are some journals that we are not subscribed to due to high subscription fees. Therefore one of my problems is the lack of some of the necessary resources on the topic (senior scholar in sciences).

You know in American universities, for example, professors rarely teach more than two courses. They use their time for doing research. But when you are teaching the whole week then you are left with little if any time for research and publication. Moreover, here as a researcher you are alone; there are no research groups formed on the same topic throughout the country (mid-career scholar in social sciences).

In addition to problems faced in the process of research and managing the research process, participants also referred to writing problems, especially when it comes to writing the introduction and discussion sections of their papers.

Based on my own experience, I think the most important and the most difficult part is the introduction. If the reviewers do not recognize your main goal in the research you are reporting, they will not continue reading the rest of your article. Therefore, I spend more time on the introduction section. The way you link your work with others and try to convince your audience about the significance of your research is really important in this part. Sometimes I write three or four drafts of the introduction section to finalize it (mid-career scholar in sciences).

Some participants also mentioned that in academic writing, arguing for and elaborating on points is very important and at the same time challenging, especially for those whose native language is not English. Part of this problem, they believed, was related to their limited English lexicon, restricted knowledge and skill in using appropriate expressions and suitable structures.

> Even if you want to write in Persian, you have problems. Writing is composition and composition is creation. Creating a piece of written material has its own problems. My native language is not English; therefore, in comparison to native speakers of English it takes more time to develop ideas (midcareer scholar in social sciences).

> Sometimes I change my arguments two or three times. I try to look at the issue from different perspectives and to discuss it in a better way. I present the data in the tables, but the explanation and justification of the results is difficult. It is hard to get my points across to the reader (mid-career scholar in sciences).

> My problem is fluency and facility of expression in English. Sometimes I should find the proper words; therefore, I refer to the available resources to find the most appropriate terms. I can easily use the phrases and idioms in my native language, but in English it is difficult for me to use them like a native speaker of English. Certainly I do not have their command of expression. Instead of one short sentence, I use two sentences to get the point across. They express whatever they want easily, but it is difficult for me to express my points (mid-career scholar in humanities).

#### STRATEGIES

To remedy the problems the participants faced in writing their papers in English, they referred to some strategies they had found useful. Most of them reported their extensive reading of the English texts in their disciplines as a good resource for them to learn about writing styles, sentence structures, vocabulary and expressions besides the topical knowledge. Revising and editing of the articles by themselves and by their colleagues was another main writing strategy they reported. Most of these strategies were, however, reported by participants from sciences.

> I start typing the article as the first draft. Then I continuously do the revisions. For example, yesterday I submitted an article to a journal. I had revised and edited this article at least ten to 12 times (mid-career scholar in sciences).

I try to give my article to one or two colleagues who have published more than me to comment on its content and language. This type of cooperation is very common in our department (mid-career in sciences).

Some of the participants considered the opportunity of sabbatical leave to embark on new research and to enhance their writing abilities.

> The sabbatical leave helped me a lot to get familiar with the most recent topics in my own field and learn about research methods better. The leave was almost seven or eight years after my Ph.D. I had just five articles at that time. After my sabbatical leave I have been able to write more papers. I learnt a lot during my stay in United States. My collaboration with researchers over there is still continuing. I have email correspondence with my foreign colleagues. We have written four joint articles so far (mid-career in sciences).

# DISCUSSION AND CONCLUSION

In light of the two research questions presented in the introduction section of the chapter, conclusions and discussions of the study are presented in this part. As presented in the first part of the chapter, the rate of scholarly publications by Iranian scholars as indexed in WOS has increased considerably from 1993 to 2007. This is during the last 30 years Iran has experienced an unstable relationship with Anglophone countries as a result of its 1979 Islamic revolution and the post-revolution aftermaths. The unstable and even sometimes hostile relation between the two sides has had implications in the academic arena. Western countries have made restrictions and bans on selling and transferring technology and materials including resources necessary for Iranian scholars to conduct research. Such restrictions have even been extended to policies related to admitting Iranian PhD students and issuing visas to Iranian scholars for spending their sabbatical leave in English-speaking countries. Finding themselves in an explicitly articulated soft combat in technological and academic scenes, Iranian policy makers have defined knowledge production and technological development as one of their major strategies, changing a threat into an opportunity. Publishing in international, high ranking journals has been translated into a promotion and merit policy in Iranian universities. Other scholars (see, e.g., Curry & Lillis, 2004; Flowerdew, 1999a; Li, 2006; Lillis & Curry, 2006) have pointed out that institutional policies for promotion and awards should not be underestimated in the participants' desire to publish in international journals.

It is thus not incidental that notwithstanding the serious and tight Western sanctions, Iranian scholars have been able to increase their knowledge production and dissemination 30 times over 15 years, with the majority of such knowledge production in sciences (71%). Moreover, the case was reported that seven out of nine Iranian journals that publish science papers in English are indexed in Web of Science, which is another leap toward increasing Iran's share in knowledge production. These facts were corroborated by Iranian scholars' attitudes toward writing and publishing in English. As Erdbrink (2008) cites Burton Richter, an American Nobel laureate in physics, "Iran wants to join the group of countries that want to know about the biggest things, like space" and that Iranian students are very impressive, and that he expects to hear more from them in the future. Erdbrink goes further and states, "Iranian scientists claim breakthroughs in nanotechnology, biological researchers are pushing the boundaries of stem cell research and the country's car industry produces more cars than anywhere else in the region."

The following main points could be extracted from the scholars' viewpoints:

- 1. Participants considered knowledge production and dissemination of their research as their main goal.
- 2. While participants from the sciences advocated (strongly) publishing in international English-medium journals, participants from the social sciences and the humanities were more in favor of publishing in their native language and in local journals.
- 3. Participants from the social sciences and the humanities expressed some experiences of bias from international English-medium journals which they referred to value-laden issues.

- 4. All participants agreed they had problems composing in English. The writing problems included a wide variety of issues from lexico-grammatical to elaboration and discussion of ideas in their second language.
- 5. Participants from the sciences were found to be more strategic in terms of using a variety of strategies to overcome their problems in conducting and writing up their research.

While all the 72 participants in the study considered knowledge production and dissemination as their goal in publishing papers, there were two distinct, but perhaps complementary views on where the outcome of their research should be published. Science scholars defined their role to be more visible in international scenes by publishing in international English-medium journals, while social sciences and humanities scholars found it more plausible disseminating knowledge in local journals. Three reasons could be discerned from these scholars' standpoints on this issue. The first was participants' conception of sciences being value-free and social sciences and humanities being valueladen-an issue which they thought would affect the whole research process and their choice of journals to send their research report to. At a more general level, such a finding is in line with the findings of previous research studies (see, for example, Belcher, 2007; Canagarajah, 1996; Cho, 2004; Flowerdew, 1999a, 2000; Gibbs, 1995; Gosden, 1992; Li, 2006; Swales, 1998; Wood, 1997) in which the participants of the studies contended there is bias against non-native authors who try to publish in international journals. Secondly, these scholars believed one way of promoting native and national language is through academic publication and that they found this as one of their mandates. Thirdly, they believed getting their papers published in international English-medium journals required them to devote more time and effort compared to the time and effort spent on similar tasks by themselves when publishing in their native language and by native English speakers when they publish in English; a finding similar to Flowerdew's (1999a) study in that the Cantonese academics felt they were at a disadvantage when writing for publication in English compared to NSs. This could even be extrapolated to findings on problems in writing for publication in English by both science and social science scholars of the study. This finding corroborates previous findings on the issue (see, for example, Adams-Smith, 1984; Bazerman, 1988; Buckingham, 2008; Dudley-Evans, 1994; Flowerdew 1999b; Johns, 1993; St. John, 1987; Swales, 1990). Such problems ranged from language-oriented lexico-grammatical issues to more writing and rhetorically-oriented problems of writing introduction and discussion sections of the papers and adequately arguing for and interpreting findings.

Regarding the strategies Iranian scholars reported they used to write papers in English, the findings of this study are supportive of the strategies reported by other participants in other studies and contexts. The strategies included, but were not limited to, revising and editing, attending to audience, using a co-author (see, for example, Buckingham, 2008; Flowerdew, 1999a), and disciplinespecific reading (Buckingham, 2008; Okamura, 2006). Okamura (2006) suggested that reading academic texts in one's field resulted in participants' learning typical writing patterns. In the present study, the scholars not only reported on learning writing patterns but also writing styles, sentence structures, vocabulary, and register through reading extensively in their own field. Some of the Iranian scholars complained about the lack of research networks in the country, and others highlighted the opportunity their sabbatical leaves created to form research networks, which was a key resource for their co-authored papers, a finding in line with Curry and Lillis's (2010) study. While Iranian scholars, like other international scholars, reported using language, writing, and social strategies in their attempt to publish papers in English, they could be considered strategic at a higher level. That is, they contributed to the macro strategy of promoting the country's status in international knowledge production completion and in particular neutralizing Western countries' sanction policies toward Iran, especially in the areas of science and technology.

The general conclusion reached by this study is that despite the turmoil in the political relation between Iran and the West, the rate of scholarly publications by Iranian scholars in international English-medium journals has exponentially increased notwithstanding the constraints these scholars have faced. While scholars from sciences advocated and practiced a more universal pattern of scholarly publication, scholars from social sciences and humanities preferred and practiced a more local trend of academic publication.

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# NOTES

1. It is based on the ISI (Institute of Scientific Information) categorization.

2. The faculty of law and political science provides both of the subject categories in this university.

3. The words "science" and "scientific" are used in a generic sense in Persian and refer to scholarly work carried out by academics in all disciplines--sciences, social sciences and humanities. The words "scientific" and "academic" are also used interchangeably. When used by academics from the social sciences and humanities, as in this quotation, "science" and "scientific" imply a piece of scholarly work that can be empirical (using primary data) or library-based (using secondary data).

# REFERENCES

- Adams-Smith, D. E. (1984). Medical discourse: Aspects of author's comments. *The ESP Journal 3*, 25–36.
- Bazerman, C. (1988). Shaping written knowledge: The genre and activity of the experimental article in science. Madison, WI: University of Wisconsin Press.
- Belcher, D. (2007). Seeking acceptance in an English-only research world. *Journal of Second Language Writing*, *16*(1), 1–22.
- Benesch, S. (1996). Needs analysis and curriculum development in EAP: An example of a critical approach. *TESOL Quarterly*, 30(4), 723-738.
- Benesch, S. (2001). Critical English for Academic Purposes: Theory, politics and practice. Mahwah, NJ: Lawrence Erlbaum.
- Buckingham, L. (2008). Development of English academic writing competence by Turkish scholars. *International Journal of Doctoral Studies*, *3*, 1-18.
- Canagarajah, A. S. (1996). Nondiscursive requirements in academic publishing, material resources of periphery scholars, and the politics of knowledge production. *Written Communication*, *13*(4), 435-472.
- Canagarajah, A. S. (2001). Addressing issues of power and difference in ESL academic writing. In J. Flowerdew & J. Peacock (Eds.), *Research perspectives on English for academic purposes* (pp. 117-131). Cambridge, UK: Cambridge University Press.
- Canagarajah, A. S. (2002). *A geopolitics of academic writing*. Pittsburgh, PA: University of Pittsburgh Press.
- Canagarajah, A. S. (2005). Reconstructing local knowledge, reconfiguring language studies. In A. S. Canagarajah (Ed.), *Reclaiming the local in language policy and practice* (pp. 3-24). Mahwah, NJ: Lawrence Erlbaum.
- Casanave, C. P. (1998). Transitions: The balancing act of bilingual academics. *Journal of Second Language Writing*, 7(2), 175–203.
- Cho, S. (2004). Challenges of entering discourse communities through publishing in English. *Journal of Language, Identity, and Education, 3,* 47-72.
- Curry, M. J., & Lillis, Th. (2004). Multilingual scholars and the imperative to publish in English: Negotiating interests, demands, and rewards. *TESOL Quarterly*, 38(4), 663-688.
- Curry, M. J., & Lillis, T. M. (2010). Academic research networks: Accessing resources for English-medium publishing. *English for Specific Purposes, 29,* 281-295.

- Dudley-Evans, T. (1994). Genre analysis: An approach to text analysis for ESP. In M. Coulthard (Ed.), *Advances in written text analysis* (pp. 219–228). London: Routledge.
- Duszak, A., & Lewkowicz, J. (2008). Publishing academic texts in English: A Polish perspective. *Journal of English for Academic Purposes*, 7, 108-120.
- Erdbrink, T. (2008, June 6). Iran makes the sciences a part of its revolution. Washington Post Foreign Service.
- Flowerdew, J. (1999a). Writing for scholarly publication in English: The case of Hong Kong. *Journal of Second Language Writing*, 8(2), 123-145.
- Flowerdew, J. (1999b). Problems in writing for scholarly publication in English: The case of Hong Kong. *Journal of Second language Writing*, 8(3), 243-264.
- Flowerdew, J. (2000). Discourse community, legitimate peripheral participation, and the non-native-English speaking scholar. *TESOL Quarterly, 34*(1), 127–150.
- Gibbs, W. W. (1995, August). Trends in scientific communication: Lost science in the third world. *Scientific American*, 76-83.
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity.* New York: Prentice-Hall.
- Gosden, H. (1992). Research writing and NNSs: From the editors. *Journal of Second Language Writing*, 1(2), 123-139.
- Jernudd, B. H., & Baldauf, R. B., Jr. (1987). Planning science communication for human resource development. In B. K. Das (Ed.), *Language education in human resource development* (pp. 144-189). Singapore: SEAMEO Regional Language Centre.
- Johns, A. M. (1993). Written argumentation for real audiences: Suggestions for teacher research and classroom practice. *TESOL quarterly, 27*(1), 75-90.
- Leki, I., Cumming, A., & Silva, T. (2008). A synthesis of research on second language writing in English. New York: Routledge.
- Li, Y. (2006). A doctoral student of physics writing for international publication: A sociopolitically-oriented case study. *English for Specific Purposes, 25*, 456-478.
- Lillis, T., & Curry, M. J. (2006). Professional academic writing by multilingual scholars: Interactions with literacy brokers in the production of English-medium texts. *Written Communication*, 23(1), 3-35.
- Liu, J. (2004). Co-constructing academic discourse from the periphery: Chinese applied linguists' centripetal participation in scholarly publication. *Asian Journal of English Language Teaching, 14*, 1–22.
- Medgyes, P., & Kaplan, R. B. (1992). Discourse in a foreign language: The example of Hungarian scholars. *International Journal of the Sociology of Lan*guage, 98, 67-100.

- Nourouzi Chakoli, A. R., Hassanzadeh, M., & Nourmouhammadi, H. A. (2008) (Persian). An analytical view on the dissemination of Iranian knowledge in the world (1993-2007). Tehran: National Research Institute.
- Okamura, A. (2006). Two types of strategies used by Japanese scientists, when writing research articles in English. *System, 34,* 68-79.
- Pennycook, A. (1997). Cultural alternatives and autonomy. In P. Benson & P. Voller (Eds.), *Autonomy and Independence in Language Learning* (pp. 35-53). London: Longman.
- Pennycook, A. (1999). Introduction: Critical Approaches to TESOL. *TESOL Quarterly. Special-Topic Issue: Critical Approaches to TESOL*, 33(3), 329-348.
- Pennycook, A. (2001). *Critical applied linguistics: A critical introduction*. Mahwah, NJ: Lawrence Erlbaum.
- Phillipson, R., & Skutnabb-Kangas, T. (2000). Drepturi si nedreptati lingvistice. *Altera*, 14, 5-21. [Translation into Romanian (1995), Linguistic rights and wrongs.] *Applied Linguistics*, 16(4), 483-504.
- St. John, M. J. (1987). Writing processes of Spanish scientists publishing in English. *English for Specific Purposes, 6,* 113-120.
- Swales, J. M. (1990). *Genre analysis: English in academic and research sittings.* Cambridge, UK: Cambridge University Press.
- Swales, J. (1998). Other floors, other voices: A textography of a small building. Mahway, NJ: Lawrence Erlbaum.
- Thomson Scientific (2007). *Web of science*. Retrieved from http://thomson-reuters.com/products\_services/science/
- Wood, A. (1997). International scientific English: Some thoughts on science, language and ownership. *Science Tribune*. Retrieved from http://www.tribunes.com/tribune/art971woodshtm/