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International Collaboration, Co-operation and Partnerships in Science Writing in the Islamic Republic of Iran

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ABSTRACT

The Islamic Republic of Iran is without a doubt seeing a significant increase in scientific prowess and activity on the global arena. This paper has as its primary objective to highlight the advances made by Iran in science, focusing wherever possible on the plant and agricultural sciences. Such advances are examined as a function of the current rules and structure currently in place at research institutes and universities, and as established by the Ministry of Science, Research and Technology (MSRT). The rationale used in Iran and by Iranian scientists is often completely unknown to, and misunderstood by, non-Iranian scientists, and this paper provides unique and valuable perspectives for non-Iranians to understand the mind-set of an Iranian scientist in trying to achieve success in science, particularly through the medium of publishing. As a subset, we look at how collaborative research and collaborative publishing fit into the scheme of things, and how rewards and several factors are weighed and taken into consideration when recognizing the effort of an Iranian scientist. Although there are obvious socio-political issues that are underlying science in Iran, these are not covered in this paper so as not to distract the reader from the true focus of our message.

Keywords: collaboration, partnerships in science writing, English and science writing skills

OVERVIEW OF ACHIEVEMENTS AND RELATIVE STANDINGS

Scientific output has grown 11 times faster in Iran than the world average, faster than any other country. A survey of the number of scientific publications listed in Thomson Reuter's Web of Science database shows that growth in the Middle East – mostly in Turkey and Iran – is nearly four times faster than the world average (Shirazi 2011). According to Shirazi (2011), Thomson Reuters' (2011) Global Research Report assesses the position of Middle Eastern countries in terms of publishing in ISI journals and future scientific challenges they face in participating and taking advantage of knowledge generation and development. According to that analysis, Iran ranks second, behind Turkey, in producing world-class scientific research. For example, while Turkey produced 81,900 ISI papers in 2005-2009, Iran and Egypt's contributions were 42,600 and 17,500, respectively. The report highlights that Iran's growth in scientific production has been much faster than any other country in the region (e.g. more than twice faster than Turkey) over the same period. In fact, based on ISI reports, Iran has increased its academic publishing output nearly 10-fold from 1996 to 2004 and is ranked first globally in terms of output growth rate, followed by China with a three-fold increase. Overall, Iran produces 0.48% of the world's highly cited output in all fields and just about half of what would be expected for parity at 1%. The comparable figures for other countries in the region following Iran are: Turkey at 0.37%, Jordan at 0.28%, Egypt at 0.26% and Saudi Arabia at 0.25% (Thomson Reuters 2000-2010). Similarly, the Science Matrix in its 30 Years Science Report (2010) singles out and hails Iran for its remarkably fast build-up of scientific capabilities the world has experienced over the last two decades and suggests that this growth with its emphasis on specific, strategic, subfields may be the result of Iran's controversial nuclear technology programme. This remarkable growth of Iran's scientific outputs, particularly in basic, physical and applied sciences (mathematics, chemistry, physics, engineering and medical sciences) have been attested by many other governmental and independent reports. International collaboration, co-operation and partnerships in science writing can amplify this growth, with several politicized arguments existing to criticize or denounce such efforts.

Over the past few decades, Iran has had such a sharp increase in science production that it was placed among the 31 countries of the world that published the so-called "top 1% most cited publications" (King 2004). It seems that such a surge in science production by Iran has several reasons, including allocation of a larger budget to the scientific research sector, increased number of graduates and assistant professors over the recent years, and the requirement for junior professors and postgraduate students to publish scientific articles in recognized journals to obtain academic career promotion (ACP), and to graduate, respectively (Habibzadeh 2006). BK is of the opinion that the surge in science productivity production has not stemmed from a larger budget to the scientific research sector. Rather, budget management in the frame-work of scientific grants in universities and other scientific organizations has been one of the most important reasons for scientific production progress in Iran. Moreover, post-graduate educational levels have seen significant growth during current decades as a result of policy prioritization. Four items are determined for ACP: 1) Cultural activities; 2) Research-scientific activities; 3) Training activities; 4) Scientific-performance (administrative) activities. The act itself is very complicated and long (ACP 2012). In each item, the least necessary scores and total score should be achieved, and this should be based on updated rules. However, ACP rules and details related to it have changed recently, thus it is still a rough communiqué,

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Opinion Paper

Table 1 Percentage allocation of total GDP to R&D funding.

2011-2012	0.35
2010-2011	0.42
2009-2008	0.55
2007-2008	0.45
2006-2007	0.45
2005-2004	0.5

Source: Research Center of Islamic Republic of Iran Parliament (28 August 2012): http://rc.majlis.ir/fa/mrc_report/show/805916

and more details cannot as yet be provided.

Based on the 2011-2012 budget proposal of Iran (Research and Technology section), which was authorized in November 2011, R&D credit has increased 28% compared to one year earlier, but the portion of credit relative to total GDP has increased from 0.45 to 0.5%, but will likely reach 3% of total GDP during the 5th development program of Iran (**Table 1**).

In a study by Noroozi Chakoli *et al*. (2008), Web of Science (WOS), Essential Science Indicators (ESI), Journal Citation Reports (JCR) databases have been used to investigate scientific developments of Iran during 2006 and 2007. For this purpose, the data in this account was collected from WOS, JCR and in some cases ESI during January 2008. According to the latest data available in ESI during the years between January 1, 1997 and June 30, 2007, the Islamic Republic of Iran, with 27,529 papers and outpacing Egypt, was in the 40th place among 145 ranked countries (Thomson Scientific 2008a). Furthermore, Iran was in second place after Turkey in Islamic world in both ESI and WOS. Nevertheless, Iran's position compared with that of South Korea and Turkey shows that the country has a long road ahead. In 2005, Iran's scientific production was behind that of Turkey by a factor of 3 and behind that of South Korea by a factor of 5.5. Turkey and Iran have considerable demographic indices in common. Comparison with South Korea becomes meaningful if one considers that both are among the emerging nations on the world scene of science and technology.

According to ESI statistics, Iranian papers have been cited 85,629 times during the same decade (January 1, 1997 to June 30, 2007) (se detailed tables and graphs in Noroozi Chakoli *et al*. 2007, 2008, 2010). Therefore, the citations per paper were 3.11. Although the total numbers of citations and the citations per paper have increased in comparison with the previous decade, Iran's rank has not altered compared with the previous period. Based on ISI reports, the total number of Iranian papers in WoS in 2007 consisted of 9061 papers, indicating a 32.28% growth in comparison with the total number of papers in 2006 which was only 6748 papers. The number of papers in 2007 in the three sections of Science Citation Index Expanded (SCIE), Social Sciences Citation Index (SSCI) and Arts & Humanities Citation Index (A&HCI) was 8938, 351 and 30, respectively (Thomson Scientific 2008b) while the number of papers in 2007 in SSCI and A&HCI showed considerable growth (Thomson Scientific 2008c).

The improvement of Iran scientific rank in ESI and the increase in the number of Iranian journals in JCR indicate the increase in the scientific activities of Iranian researchers during the years under study. The variety of languages used by Iranian scholars could indicate shared scientific interactions between them and researchers in other countries. These interactions might include the exchange of instructors and students, the conduct of shared research projects, etc. (Noroozi Chakoli and Nourmohammadi 2007; Noroozi *et al*. 2007). According to Thomson Scientific, in 2007, it was possible to index sources in 49 different languages in WOS. In other words, non-English sources which comply with 'evaluative criteria of journals in ISI' could be included in WOS. Persian happens to be among these 49 languages; therefore, Persian journals can be indexed in WOS if they adhere to the evaluation criteria of journals in ISI. However, the study reveals that although all Iranian papers were published in WOS in nine different languages, Persian itself was not among them. According to Thomson Scientific (2012), "Many factors are taken into account when evaluating journals for coverage in *Web of Science*, ranging from the qualitative to the quantitative. The journal's basic publishing standards, its editorial content, the international diversity of its authorship, and the citation data associated with it are all considered. No one factor is considered in isolation, but by combination and interrelation of data, the Thomson Reuters editor is able to determine the journal's overall strengths and weaknesses.

In Iran, more papers could be published in SCI journals but are finally published in national journals, simply because of language difficulties. Most internal papers are published in Persian with an English abstract, but their effect and reach is severely reduced due to the language limit. Many national journals are free of charge and non-Persian speakers can use the abstracts in English that are indexed. A few journals also are bi-lingual and the choice of language is optional. In addition, Iran has a few ISI-ranked journals: in total, 67 Iranian journals are listed in ISI, 14 of which are related to agriculture (general), and 7 are plant-based. For example in our Institute (GUASNR), we have a journal entitled International Journal of Plant Production (www.ijpp.info with 2011 IF = 1.10 and 5-year IF = 1.06). These journals have pre-determined scopes and cannot cover all disciplines. Seven Iranian journals are among 10,000 journals which were indexed by WOS in 2007 (see Table 10, Noroozi *et al*. 2008). These Iranian journals published 283 Iranian papers in 2007. Therefore, they had an average contribution of 3.12% in the publication of Iranian papers. In other words, i.e., 3.12% of Iranian papers were indexed in WOS in 2007. However, the situation has not changed (latest update, October, 2012): 7 journals are ISI. These journals are published by six Iranian organizations which are all considered as public institutes. However, another interesting fact is the existence of non-academic publishers alongside academic publishers.

WHY DO IRANIAN RESEARCHERS SHY AWAY FROM PUBLISHING IN SCI PAPERS?

1. Many Iranian researchers shy away from publishing their research data in English-based journals (international journals with and without IF) because of linguistic problems (Shirazi 2011). Moreover, English revision services and text-editing services are costly and non-professional. These centers are informal and tend to perform these activities alongside other work. Thus, the author should write a paper in Farsi and deliver it to a translation service. Although international services are available to assist in text editing, their services are expensive and money transfer is not easy due to US-imposed bans on international bank transfers to and from Iran.
2. The possibility of publishing studies in Islamic Science Citation (ISC) papers (Islamic World Science Citation Center; http://www.isc.gov.ir/), which includes journals from Iran and other Islamic countries, is another cause for shying away from publishing their papers in English-based journals. For example, the highest score which a paper in a Global Science Books (GSB) journal will give, is 4 (when it has been written by just one author), while the highest score of an ISC paper (which is included in ISC journals listed by the Ministry of Science, Research and Technology (MSRT) could be 7 (varies from 5-7 based on the manuscript context quality which is assessed by special reviewers in an elite commission). The formula related to ISI and non-ISI international papers at GUASNR is the same: 4+ (2×IF/MIF) where MIF = median IF. The aggregate impact factor for a subject category is the IF of a specific category, and is calculated the same way as the IF for a journal, but it takes into account the number of citations to all journals in the category and the number of articles from all jour-

nals in the category. An aggregate factor of 1.0 means that on average, the articles in the subject category published one or two years ago have been cited once. The MIF is the median value of all journals' IFs in the subject categories, which are determined by Thomson Reuter's JCR. For example, Field Crops Research (Elsevier) is in the Agronomy category, which has a category MIF of about 0.878. For other examples, please look at http://reserach.vru.ac.ir/research1/mif.pdf. These journals have been confirmed and listed by the Iranian Ministry of Science, Research and Technology (MSRT). Based on the last version of the Iranian academic career promotion rule (authorized on January 3, 2011 by MSRT and that should be considered from all requests which are subscribed from 22 August 2012 onward), all scientific research papers could be given a score which could range from 2-7. Detailed decisions about which score is attributed to each paper is entrusted to a commission which is university-specific. Based on the final act of this commission, ISC papers could be scored between 5 and 7. ISI papers whose IF is ≥ MIF are scored between 5 and 7, while manuscripts with an IF < MIF will be scored based on the formula indicated above. Therefore, if a scientist wants their score to be around 7, in the best situation, the IF should be higher than the MIF. It is clearly obvious that without an IF, papers would be given a score of 4, at best (the highest values for a non-IF journal may be reduced by professional committees in different stages). For example, if a paper has the potential of receiving a score of 7 as the highest value, this does not necessarily mean that the score will be 7 with any level of certainly. This score maybe reduce base on quality assessment which is done by professionals and other members of assessment commissions. These commissions are active at two levels: department and faculty level, and university level. Commission members are selected based on defined rules, for example, for GUASNR: http://www.gau.ac.ir/module-htmlpages-display-pid-99.html. This committee includes the head of department, two floating professional members whose education is the same as that of the applicant, and a constant member which is elected by other scientific members for one year. For example, if I (BK) apply for a promotion, these two members will be agronomists. The constant member can be from any agricultural discipline. University committee members are proposed by the vice president, confirmed by the university president and finally accepted by the board of quality assessment. This committee will check scores which were determined by the faculty level committee. The final decision on whether a promotion is accepted or rejected is ultimately in the hands of the Board of quality assessment, which is essentially formed to assess the promotion of current academic members and to evaluate the performance of academic staff in terms of educational and research affairs. This Board consists of the university President, Academic Affairs vice President, Research and Technology Vice-President, and 10 distinguished members of the academic staff holding a Professor or Associate Professor position. Qualitative assessment will be conducted by all members and the score is averaged (i.e., an average of 4 scores). Therefore, the final score could be reduced from the ceiling score. An average score will be calculated based on the assessment commission members' votes. For example, if a paper's averaged score is 6, in the next stage the number of authors and position index will influence the final score (**Table 2**). For example, if the paper was written by 4 authors, the score for the first author will be calculated as: 6×0.7 = (4.2), while the score of each co-author (it makes no difference if the co-author is second, third or the fourth) will be calculated as: 6×(0.35) = 2.1 (0.7 and 0.35 obtained from **Table 2** when the manuscript has 4 authors). It should be mentioned that based on academic career promotion rules (ACPR) in Iran, ISI and ISC "hot" papers also have the same score. "Hot" papers are usually related to the level of citations and are special lists that are created by publishers, for example Elsevier's "Top 25 hottest articles" lists. Such lists are often pure marketing ploys. Based on the last version of the Iranian academic career promotion rule (authorized on January 3, 2011 by MSRT and that should be considered from all requests which are subscribed from 22 August 2012 onward), all "hot" papers or highly-cited papers could get a higher score. For this purpose, the highest score which could be considered for each paper will be multiplied by 1.5. This means that regular "not-hot" papers could get a 7 score as the highest possible score, but hot papers could get a score of 10.5. One of the weaknesses of this scoring system is that if IF ≥ MIF, then the maximum score will be equal to 7 and the minimum score will be 5, irrespective if the IF is 2 or 30!

Table 2 Score distribution among research works authors (with little change in recent years)*.

Number of authors	Fist author (% contribution)	Co-authors (% contribution for EACH co-author)
1	100	0
2	85	45 (maximum total = 45)
3	75	40 (maximum total = 80)
4	70	35 (maximum total = 105
5	60	30 (maximum total = 120)
6	50	28% (maximum total = 140%)**

* GUASNR rules (no web-site). This table is provided to encourage authors to do team work. Therefore, the total score for 6 authors is around 190% [(1×50)+(5×28)], while that for a single author is 100%. Although the per capita score is less when there are more authors, the total score is higher when there are more authors.

** The total of 140% in the table implies that when there are 6 (or more) authors, the first author's contribution is 50%, while 140% will be divided among the remaining authors. For example, when there are 7 authors, the contribution of all authors other than the first author = 140/6 = 23.3%. Similarly, for 8 authors, the score for each co-author (except the first author) = 140/7 = 20%. The total exceeds 100% to encourage multiple author contributions.

3. In recent years, Iranians feel that many journals have restricted the publication of Iranian's papers because of international considerations (personal communication with colleagues). Therefore, many researchers prefer to connect with other familiar persons in the world to facilitate the publication of their papers.
4. The lack of familiarity with online submission systems, especially in journals in which the submission process is hierarchical and in multiple stages, with all instructions in English. Internet accessibility is not problematic, although it can be disrupted by physical causes such as earthquakes.

WHY ARE IRANIAN RESEARCHERS INTERESTED IN PUBLISHING IN SCI JOURNALS WITH FOREIGN SCIENTISTS?

The answer is almost self-evident.

1. In many cases, material provision to complete data or to validate experiments is complicated. For example, poor datasets in Iran to check current data or the lack of long-term records to calibrate models, validate them or interpret results can encourage researchers to connect with other researchers, institutes, or organizations abroad. For example, a model developed for a given crop in Iran can be checked by independent data in Australia. These kinds of studies are used just to calibrate and validate models, but these data are not used to interpret local results. For example, many crops' growth and developmental parameters which are essential to construct a model or to use in ready models are not available for Iranian cultivars. Therefore, Iranians try to use similar varieties' characters which are not cultivated in Iran. In recent years, many studies have attempted to cover this gap, but complete data sets are still a long way from

being complete. Such CPC is further spurred by the lack of professional facilities or equipment needed to analyse materials and generate raw data. Sabbatical leave offered by the MSRT for postgraduate students and academic staff in Iran is an excellent opportunity to cover these gaps. Major international collaborations in Iran may be related to these scholarships and sabbatical leaves. Non-availability of ideal digitized satellite images is one of other examples. Although Iran is engaged in satellite technology development that has progressed well during recent years, the lack of satellite images with high spatial resolution is one of the biggest problems now being faced. Many satellite images such as LandSat can be downloaded or bought from many sources, but satellite images with high spatial resolution such as Ikonos, Quickbird and Spot (most recent) are not available to download from Iran. Buying these images is restricted.

2. A high score of papers which are published in ISI journals with an appropriate IF and MIF (i.e., where the IF ≥ MIF and where higher IFs are better) is another cause for many Iranian authors to be interested in collaborating with scientists abroad. This score is important for many reasons: Based on ACPR in Iran, to shift from a lower academic degree (for instance assistant professor) to a higher academic degree (i.e., associate professor), a scientist needs given scores from research-technological items (Item II, ACPR regulation, www.msrt.ir). Item II includes research-scientific papers, review-scientific papers, promotional-scientific papers, full papers in International scientific congresses, etc.). Here, it should be noted that a given proportion of an applicant's scores in Item II-Sub I (i.e. scientific-research papers) should be from ISC or reliable ISI journals. If not, the applicant's degree will not change, even if all other items' scores are fulfilled (veto scores). These rules are currently in dynamic change. Thus, this can be another factor which encourages Iranians to collaborate with researchers abroad to direct common works in different levels of collaboration, ultimately with the aim of obtaining an IF. A journal such as Academic Journals' African Journal of Biotechnology (www.academicjournal.org/AJB), which lost its IF in 2011, would thus not be taken into consideration by the MIF.
3. ISI papers can affect research funding (scientific-research grant) of academic members. This grant is reimbursed to support students' projects, pay for purchasing equipment, taking apart in international congresses, taking part in training courses, recording innovations and inventions, buying necessary books and software, publishing papers in non-free charged journals, experimental materials, etc. Research grant reimbursement is institute or university-specific and follows authorized rules by research vice presidency in agreement with the main university council. Each year from December to December, scientific scores (including scientific-research papers, ISI, and all other kind of papers such as promotional papers, conference papers, etc.) are calculated and a research grant will be calculated base on our total scores. The value can float and depends on a yearly research budget. To clarify this, last year's (Dec. 2010 - Dec. 2011) awards in GUASNR are exemplified. The maximum award belonged to a paper which was published in Remote Sensing of Environment (IF = 4.574; 5-year IF = 5.276). Its award was around 32,882,8412 Rls, which is around 2682.12 $US (1 $US = 12260 Rls, October, 2012 according to current conversion coefficient of Iran's Central Bank), while the maximum award for a scientific research in Persian journals was 3,500,000 Rls (~282.5 $US), an incredible 10-fold difference. Also the maximum award of international papers (non-ISI journals or without IF ISI papers) was 2,800,000 Rls (~228.3 $US).
4. The highest research prize which is offered yearly to all academic members of a university is based on their work during the previous academic year (from December to December) and takes into consideration ISI papers with higher IF and lower MIF in that year. These awards are significant. For example, the prize of a paper which was published in an internal (Iranian) journal may be ≥10-fold less than many ISI journals. Calculations are made based on given formulae which can be university- or institute-specific and may be variable. For example, at Gorgan University of Agricultural Science and Natural Resources (GUASNR), elite researchers are introduced in research week of Iran to get special prizes (no tables available) and one of the items is "the best researcher with respect to the highest quality ISI paper" and another item is "the best researcher with the most score in respect to scientific-research papers irrespective of ISI or ISC)". These also are good motivators to encourage researchers to write high-quality papers in collaboration with other authors abroad. Of course, this does not mean that it can be done just by international collaboration, but it will surely facilitate the process, and the subsequent success. In such cases, there are no official ethical rules although scientists should always refer to their university name and also publish papers in those journals which are not on a black list. Such lists are unofficial and are not presented by the MSRT. Related to the former aspect, GUASNR should be considered as an author's affiliation. For example, if a PhD student at GUASNR is a scholar at another organization, he (she) should consider GUASNR's name as his (her) affiliation. If he (she) mentions the other organization's name (i.e., not GUASNR's name), it will not be considered at all and these papers will not be considered for awards.
5. The knowledge of "paper writing" in Iran tends to be poor, of different. The Iranian viewpoint with respect to "results and discussion" is completely different from conventional ISI journal wisdom. In many cases, indeed the "results and discussion" implies "results and comparing them with other research reports or the literature" while the "discussion" and "conclusions" are not separable. For example, from a reviewer's (BK) perspective, I feel that many authors simply confirm their results based findings from the literature, the discussion is not comprehensive or informative, the conclusion is a mere repeat of the results and discussion, and in many cases, some results are interpreted the which have not been measured or quantified (using unclear language such as "it seems that" or "and so on"). These are aspects that are not quantified nor do formal documents exist.
6. In many cases, researchers are not familiar with the "guide to author instructions terms". For example, the "cover letter", "research highlights", etc. I (BK) learned these after collaboration with JATdS. The lack of understanding of the organization of a scientific paper is another problem, which begs the question "Why do research institutes or universities not teach scientists such skills?" Indeed, at GUASNR, MSc students have an optional course related to "research methods". In this course, divided into 16 sections, attention is paid to research methods which starts from proposal writing and ends with research report delivery. There is not enough time to learn all notes point by point, although many workshops are frequently performed in different universities and organizations.
7. The MSRT and the Iranian government's vision for the next 14 years is "Iran the pioneer of science extending in the Middle East". This is also a motivator for all Iranian researchers to provide more quality and efficient publications in the ISI or ISC journals, with or without international collaborations. This is based on Iran's 1404 Vision Policy, the Act of the 4th Development Plan (see **Online Appendix 1**: Budget). This is a plan for Iran's development during 5-years period (4 periods equals a 20-year plan). Now we are in 1391. Therefore, the 20

March, 2012 is the first day of 1391 *Hejri Shamsi* (Iranian calendar), which equals the Christian-based year minus 621. For example 2012 - 621 = 1391.

Other issues

In Iran also, including at GUASNR, there are no clear ethical guidelines or rules to decide who can become an author and the order of authors. In general, the order of authors is decided by the highest responsible person in the work, but generally, the first author is considered to be the corresponding author (CA). The best option for an author in Iran is both the first and corresponding author simultaneously. The first author allows the scientist to get a higher score and the CA to get prizes (see **Table 2** and discussion above). When scientific members of a research group have conducted research as a common work (more than one author is involved), each contributor's score is calculated, as indicated in **Table 2**. Scores are distributed among authors, irrespective of the CA's role in the paper. However, research prizes are only paid to the CA. No compensation is paid to foreign CCP collaboration partners.

Note: If all authors or institutes which are involved in a common work deliver a consensus-based document to clarify each author or institute portion to divide scores, the first evaluated score of a published document will be multiplied by the sum of the coefficients in each row in **Table 2**. The total score obtained will be divided among authors or institutes based on their sharing coefficients which have been defined, written and signed by beneficiaries in the consensus-based document. For example, if there are two authors in a common paper, based on **Table 2**, the contributions will be 0.85 and 0.45 for the first and second author, respectively. If both authors sign a document that confirms that the contribution of both authors is equal, then the total contribution will be (0.85 + 0.45 = 1.3) and this will be divided by the same contribution for each author, resulting in a score of 0.65. This contribution will be multiplied by the total score discussed above. The total can exceed 100% to encourage team work.

A statistician can be considered as an author if that person is part of the working team. This is especially true for common works related to post-graduate students (MSc and PhD theses). Iranians are rigid in authors' names and order in this case. The common order is: Student, supervisor and co-supervisor(s) or advisor(s). Of course, the order of student and supervisor can change. Based on GUASNR rules, the supervisor will be considered as the first author in thesis works irrespective of the actual order in a paper (first or second), although it is common to consider a student's name as the first author. Base on GUASNR rules, if you are supervisor (based on official documents such as final signed report after defense of a thesis), it makes no difference if you are in the first or second order. The supervisor's score is calculated based exclusively on the position of the first author. This rule is true for the supervisor only, and not the student. Therefore, Iranians prefer to place the student's name first. The logic follows next. If a student's name is placed first, they can get a higher score if the paper is delivered to a different committee. For example, in a PhD interview test, scientific research papers and total score which students can obtain are so important and determinant. Therefore, the order of a student's name is vital for that student but is indifferent for the supervisor because in either position, the supervisor can still receive the full score. Currently, awards are also *prorata*. The supervisor is considered as the applicant, and never the student. These awards are reserved exclusively for academic staff and not for students. The choice of who becomes the CA does not follow any given rule: it is adaptive.

If a person provides English assistance, they can become a co-author, although this depends on the CA's decision, although generally specialists are selected to make scientific suggestions and corrections. This is true, especially for works other than theses. However, if they are paid a salary, Iranians prefer to send their papers to editing services. However, under current restrictions on international payments and embargoes, Iranians prefer to have their manuscripts edited by colleagues, who are experts in the field.

"Plagiarism" as one of the most frequent scientific misconducts observed in the daily practice of an Editor. It means "to steal and pass off (the ideas or words of another) as one's own" and is strongly condemned universally by the scientific community. This can stem from many researchers' inability to publish their work in reliable journals, and has increased in recent years (Habibzadeh 2008).

As described in Wikipedia (2012), "according to Thomson Reuters, Iran has demonstrated a remarkable growth in science and technology over the past one decade, increasing its science and technology output fivefold from 2000 to 2008. Most of this growth has been in engineering and chemistry producing 1.4% of the world's total output in the period 2004–2008." Medicine appears second while the proportion of other areas of research is not considerable.

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