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Knowledge translation in humanities: investigating the effects of individual characteristics of faculty members on their viewpoints

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Abstract

Purpose: As the interaction between the practical users and researchers in different fields, from defining the research topic to publishing the research, knowledge translation (TM) is a method through which exploitation of knowledge is more probable. The purpose of the present research was to investigate the relationship between individual characteristics of members of humanities faculties of Iran and their viewpoints on knowledge translation.

Methodology: This research would undergo the category of applied researches and was conducted with an analytical survey method. The research tool was a researcher-made questionnaire based on the knowledge translation model presented by National Institute on Disability and Rehabilitation Research (NIDRR) whose face and content validity were assessed. The research population consisted of all members of humanities faculties of Iran.

Findings: According to the results of T-test, ANOVA and Pearson, there was no significant difference between gender and work experience and knowledge translation. However, there was detected a significant and positive relationship between the viewpoints of the respondents on knowledge translation in humanities in Iran and demographic variables including age, academic rank, humanities academic disciplines and number of research papers.

Originality: This research is the first attempt made in investigating the effects of individual characteristics of members of humanities faculties on their viewpoints about knowledge translation.

Keywords: Utilizing research results; faculty members; knowledge translation; humanities; knowledge utilization; individual characteristics.

Introduction

As the shining value of knowing and knowledge was appreciated, new terms have appeared in this realm including knowledge transfer, knowledge sharing, knowledge translation and etc. each covering broad scopes of knowledge and opening new insights into analyzing knowledge cycle process.

While in some developing countries natural resources and national reserves are still considered as the main factors for development and their reduction is the chief concern, the industrial and developed nations have discovered endless reserves which get increased and even generate more profits as they are more consumed. This Endless wealth includes knowledge and intellectual capital which are rooted in dynamic human mind (Stewart, 2007). In today's world, knowledge production and its utilization in the real world of decision making are the greatest capitals of Governments and people (Galbraith, 2015). The limitation of resources has emphasized the importance of knowledge transfer and exploitation of research results (Blome et al., 2014).

Although “knowledge translation” is a fairly new notion defined by the Canadian Institutes of Health Research (CIHR) in the first year of the twenty-first century (Tetroe, 2007), the idea of bridging the gap between research and policy goes back to the mid-twentieth century (Montgomery and Smith, 2015). This term has to do with the process of linking “research” and “practice” and also ensuring the optimal use of knowledge relevant to research results in improving the lives of people (Rich, 1979). The process of linking research and practice has been given different names such as Knowledge utilization, Knowledge dissemination, Knowledge brokering, Knowledge transfer and Knowledge exchange (Ramsbotham, 2014). Although some may use these terms interchangeably, there are certain differences among them that need to be carefully taken into consideration (Lafrenière et al., 2013). In knowledge translation, it is attempted to evaluate all factors effective in production, transfer, accessibility and practicality of research results so as to detect the facilitating and confounding factors (Tetroe, 2007). Therefore, knowledge production would be of utmost utilization and the results of valuable researches would not be left useless. Different researchers have endeavored to detect the linking chains between knowledge production and knowledge utilization in different sciences and scientific societies which are involved in knowledge production and utilization so as to facilitate knowledge translation (Estabrooks et al., 2006, Santesso and Tugwell, 2006, Tetroe, 2007). That’s due to the fact that knowledge translation plays a significant role in all scientific disciplines. Different scholars have provided various models for knowledge translation (Rogers et al., 2009); one such models is presented by National Institute on Disability and Rehabilitation Research of the US whose components are defined (Dijkers, 2013):

- Source: Where is the origin of the research information?
- Content: What does the research information include?
- Context: What is the relationship between the research information and other information and products?
- Medium: How would the research information be accessible?
- User: How are the research information utilized?

Knowledge translation has been more the concern of medical sciences. Gaining knowledge about the phenomena and events relevant to human and society as scientific facts, nevertheless, is the purpose of a great number of scholars. Like all other branches of science, humanities needs to be and get practically applicable in order to flourish in the knowledge cycle. It is by means of theoretical inference and analytical evaluation that humanities has turned into products like psychological and personality assessment tools, psychological tests,

intelligence tests, communication patterns, information seeking models, information theories, moral teachings and even research papers and dissertations as well as scientific theories. It is worthy of consideration that despite brilliant slogans and topics of humanities and the due attention paid to production, transfer and application of humanities, the influence and practical reflection of the achievements of theses sciences is so trivial in the society. The increase in divorce rate, the growth of immorality in the society, increase in the number of addicts, disintegration of families, ignorance of religious and moral teachings, information pollution and confusion and hundreds of other examples prove and indicate that the results of the researches conducted in various disciplines of humanities have not been applied in our society.

Universities are regarded as the most important contributors to the scientific development of each country particularly in knowledge production and utilization (Landry et al., 2001, Landry et al., 2007). They direct activities like teaching, research, consultation and etc. and are pioneers of developing the culture of knowledge sharing, transfer and utilization (Jack et al., 2012, Sharifi et al., 2014). Consequently, with accordance to the paramount importance of humanities and the sparkling reflection of knowledge translation process in scientific society and also the fact that no research has been dedicated to investigate the relationship between individual characteristics and knowledge translation, the present research was intended to be the first attempt to investigate the effect of individual and demographic characteristics of members of humanities faculties of Iran on their viewpoints about knowledge translation process.

Purpose of the Study

The purpose of this study was to investigate the relationship between demographic characteristics of members of humanities faculties of Iran and their viewpoints about knowledge translation.

Hypotheses of the Study

- **H1.** The viewpoints of respondents on knowledge translation in humanities in Iran is different according to their gender.
- **H2.** The viewpoints of respondents on knowledge translation in humanities in Iran is different according to their age.
- **H3.** The viewpoints of respondents on knowledge translation in humanities in Iran is different according to their work experience.
- **H4.** The viewpoints of respondents on knowledge translation in humanities in Iran is different according to their academic rank.
- **H5.** The viewpoints of respondents on knowledge translation in humanities in Iran is different according to their academic disciplines.
- **H6.** The viewpoints of respondents on knowledge translation in humanities in Iran is different according to their number of research papers.

Literature Review

The study of texts and investigation of various databases in and out of Iran revealed that there have been few works dedicated to knowledge translation and its different dimensions. It is noteworthy that no research has been dedicated to the investigation of knowledge

translation in humanities so far and the present research is the first investigation of knowledge translation in humanities.

Bryar et al. (2003) identified barriers to research implementation experienced by nurses as lack of:

- Enough time to read and apply research
- Authority to change practice
- Support of managers and peers (particularly doctors) to achieve successful practice change.
- Critical appraisal skills and understanding of statistics

These barriers were also believed to be found in other fields and visible in different environments.

In "a case study in knowledge translation", Househ (2008) evaluated the role of information and communication technology in linkage and exchange processes in distant drug policy groups in Canada. With a critical view based on the knowledge translation model proposed by Canadian Foundation for Healthcare Improvement, Househ investigated the progression, interaction and transfer of knowledge in the target community. Regarding the interaction of information and communication technology and linkage and exchange processes, the following norms were determined:

- Web-conferencing forced group members to introduce other tools for communication. Moreover, it made them interact with texts to use research results.
- While using different communication media, the groups developed discussion and participation in the exchange of knowledge.
- Communications for knowledge transfer were perceived as best for face-to-face environments.
- Teleconferencing provided a convenient method of participation in knowledge transfer.

With the purpose of proposing a model for knowledge exchange and utilization in emergency departments, Curran (2009) carried out a research and developed a "Model for Knowledge Exchange and Utilization in Emergency Practice". Unlike other models of knowledge translation, this research paid due attention to making the environment of emergency departments challenging. Moreover, this study considered the importance of the quality of providing services and the significance of elements other than knowledge and conducted research in utilizing research results. In this study, experts, average people and patients referring to emergency departments were considered to play a role in the process of turning knowledge into practice. This model has also been successful when applied to larger populations and different emergency departments.

Tanna et al. (2011) did an experimental research titled as "Do e-mail alerts of new research increase knowledge translation?" They randomized 1683 subscribers of Nephrology Now into two different groups. Then e-mail alerts were only sent to the experimental group. The research results demonstrated that familiarity increased as a result of the Nephrology Now alerts. These e-mails, nonetheless, were not significant in improving knowledge translation.

In a research titled “Engaging national organizations for knowledge translation: comparative case studies in knowledge value mapping”, Lane and Rogers (2011) conducted a comparative case study through structured interview with spokespersons working from six national organizations. The research results indicated that all of these organizations considered the value of the research knowledge in the context of their organization's mission and the interests of their members. All are interested in collaborating with researchers to share relevant findings, while they vary along the dimensions of knowledge engagement: creation, identification, translation, adaptation, communication, use, promotion, absorptive capacity, and recommendations for facilitation.

The research conducted by Thomas et al. (2014) was an essential step forward in the advancement of knowledge translation. This research made it more likely for the interventions of knowledge translation to be able to reduce the research-practice gaps then existing in healthcare. The searches were carried out through six databases including Ovid MEDLINE (1948 – May 16, 2011), Ovid EMBASE, CINAHL, ERIC, PsycInfo, and AMED. This study demonstrated that the application of social constructivist theory in the literature of knowledge translation was restricted and not well-organized. Lack of justification for the application of theory was another shortcoming of the reviewed studies.

A theory-based study, entitled “Using realist evaluation to open the black box of knowledge translation: a state-of-the-art review”, was carried out by Salter and Kothari (2014) who attempted to investigate the complexity of knowledge translation. Multiple online databases were examined which were searched from 1997 to 2013. Those primary researches which investigated the implementation of knowledge translation interventions in healthcare by means of RE were included. As researchers attempt to determine what works must be done, for whom and under which conditions, the number of theory-building approaches aimed at examining complex interventions might increase.

Methodology

This research would undergo the category of applied researches and was conducted with an analytical survey method. The hypotheses were tested using inferential statistics.

The research population consisted of all faculty members of humanities departments in universities and research centers of Iran. According to Ministry of Science, Research and Technology, there were 63818 full-time faculty members in universities and research centers of Iran in 2015. However, there was no precise information demonstrating the number of members of humanities faculties. The most precise one was released by Institute for Research and Planning which is under the supervision of the Ministry of Science, Research and Technology, as 21046 persons by 2014. Based on this number and using Cochran's formula, the sample size was estimated as 380 subjects.

In this research, multistage cluster sampling method was used through which first, the existing universities were detected and then, the universities were classified based on their ranking. According to the ranking of universities and research institutions of Iran released by Islamic World Science Citation Center (ISC) (ISC, 2017), Islamic Azad, Payame Noor and non-profit universities were excluded from sampling. It is worthy of consideration that the mentioned ranking list was prepared based on the criteria and indicators approved by the Sixth extraordinary session of Ministers of Higher Education and Scientific Research of Islamic countries in Jeddah, Saudi Arabia in 2011. In this ranking, according to the weight of each indicator, the total score of each university and research institution was normalized.

Then, the highest score (100) was regarded as the first rank and other universities and institutions were ranked in order of their scores (ISC, 2017).
For this research, the researchers determined the ranking range[1] and universities were classified into three categories of high, medium and low ranking[2]. In the second stage, the clusters (universities) were divided into three groups of good, intermediate and weak based on their ranking (table 1). Thereafter, the questionnaires were randomly sent by email or handed out to members of humanities faculties.

Table 1: Clustering of universities and research institutions of Iran

Categories	Ranking	Universities	questionnaires in each group (F)
Good	1-16	From University of Tehran to University of Kashan	127
Intermediate	17-32	From University of Gilan to University of Yasuj	127
Weak	33-49	From University of Lorestan to Shahid Rajaee Teacher Training University	126
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The research tool was a researcher-made questionnaire based on the knowledge translation model presented by National Institute on Disability and Rehabilitation Research (Rogers et al., 2009). As previously mentioned, although there were several different models available for knowledge translation, this model was selected as the theoretical framework of this study for being comprehensive, explicit, updated and at the same time simple. By means of the researcher-made questionnaire, certain data were collected concerning demographic characteristics of members of humanities faculties of Iran; their attitude towards knowledge translation and its effective factors and also contexts of knowledge translation. For analysis of data, SPSS 17 software was used.

Demographic details of research population

From among 380 members of humanities faculties, 49.7 % were female and 50.3% of the respondents were male. A significant number of respondents (38.2%) were 41-50 years of age and the lowest number of respondents (8.2%) were above 60 years old. Regarding work experience, 40.3% of the respondents have been working for 1-10 years, 36.6% of them for 11-21 years and 23.2% for 22-33 years. 60.3 percent of the respondents were assistant professor and the lowest number of respondents (8.2%) were professor. As it is evident in table 2, 20% of the respondents were teaching in Persian language and literature subgroup, 21.1% in social sciences subgroup, 18.2% in economics subgroup, 18.9% in political sciences subgroup and 21.8% in psychology and educational sciences subgroup.

[1] To calculate the ranking rang, the lowest score was subtracted from the highest score and then the answer was divided by three.
[2]Technical and medical universities are excluded from sampling for they don't have humanities departments.

The highest number of respondents (38.7%) had authored 21-41 research papers and the lowest (8.2%) had more than 61.

Table 2: Frequency percentage of respondents according to academic disciplines

Discipline	Frequency	Frequency percentage
Subgroup1: Persian language and literature	76	**20**
Subgroup2: social sciences	80	**21.1**
Subgroup3: economics	69	**18.2**
Subgroup4: political sciences	72	**18.9**
Subgroup5: psychology and educational sciences	83	**21.8**
Total	380	**Total**

Testing research hypotheses

Before testing research hypotheses, research variables were analyzed for normality of distribution so as to decide about the required test type. For this purpose, the Kolmogorov-Smirnov test was utilized (table 3).

Table 3: Kolmogorov-Smirnov test to prove normality of data distribution

Variables	P-value
Research source	0.087
Research content	0.11
Research context	0.10
User	0.091
Medium	0.11
Knowledge translation	0.14

Taking into consideration that for all variables the p-value was less than 5%, it was concluded that all variables were normally distributed with a confidence level of 95%. Thus, parametric tests (Two independent sample t-test, ANOVA and Pearson's correlation test) could be used to test research hypotheses. For this purpose, knowledge translation was tested with each demographic variable (age, gender, work experience, academic rank, humanities academic disciplines and number of research papers) separately.

The results of abovementioned tests (table 3) indicated that there was no significant relationship or difference either between knowledge translation and gender or between knowledge translation and work experience. In other words, the first and the third

hypotheses of this research were rejected based on t-test (for gender variable) and Pearson's test (for work experience variable).
There was a significant relationship between other demographic variables including age, academic rank, humanities academic disciplines and number of research papers and knowledge translation which would be clarified in the following tables.

H2. Associations between age and viewpoints of respondents on knowledge translation

The viewpoints of respondents on knowledge translation in humanities in Iran were different according to their age.
As it is evident from table 4, based on correlation coefficient and level of significance, there was a significant relationship between the age of respondents and their viewpoints on knowledge translation. The results of Pearson's correlation test (table 4-31) showed that the level of significance (Sig=0.000) was less than alpha (α=0.05). Thus, the hypothesis that supposed a significant and positive relationship between age and knowledge translation was accepted. In other words, with age increase, the viewpoints on the status of knowledge translation in humanities would be more positive.

Table 4: Pearson's correlation coefficient between the age of respondents and knowledge translation

Knowledge translation	Age		
	Number	**Pearson's correlation**	**level of significance**
	380	0.485	**0.000**

H4. Associations between academic rank and viewpoints of respondents on knowledge translation

The viewpoints of respondents on knowledge translation in humanities in Iran were different according to their academic rank.
As it is evident from table 5, based on the ANOVA test results and level of significance, there was a significant relationship between the academic rank of respondents and their viewpoints on knowledge translation. The results of ANOVA test (table 5) revealed that the level of significance (Sig=0.001) was less than alpha (α=0.05). Based on the average responses, the associate professors had a more positive viewpoint on the status of knowledge translation while the assistant professors held a more negative point of view on the status of knowledge translation in humanities.

Table 5: Test results of the relationship between academic rank and knowledge translation

Academic rank	Number	Average
Instructor	**34**	**4.2**
Assistant professor	**229**	**3.7**
Associate professor	**86**	**4.9**

Professor		**31**			**4.2**	
		Sum of squares	**Degree of freedom**	**Mean square**	**F value**	**Level of significance**
Knowledge translation	**Interclass**	**1143**	**3**	**259**	**2**	**0.01**
	Intraclass	**4414**	**371**	**116**		
	Total	**5658**	**372**			

H5. Associations between academic disciplines and viewpoints of respondents on knowledge translation

The viewpoints of respondents on knowledge translation in humanities in Iran were different according to their academic disciplines.

As it is shown in table 5, based on the ANOVA test results and level of significance, there was a significant relationship between the academic disciplines of members of humanities faculties and their viewpoints on knowledge translation. The results of ANOVA test (table 6) demonstrated that the level of significance (Sig=0.000) was less than alpha (α=0.05). Hence, according to the average responses, the respondents from psychology and educational sciences subgroup had a more positive viewpoint on the status of knowledge translation while those from social sciences subgroup held a more negative point of view on the status of knowledge translation in humanities.

Table 6: Test results of the relationship between academic disciplines and knowledge translation

Humanities academic disciplines		**Frequency**		**Average**		
Subgroup1: Persian language and literature		76		12		
Subgroup2: social sciences		80		9		
Subgroup3: economics		69		12		
Subgroup4: political sciences		72		11		
Subgroup5: psychology and educational sciences		83		13		
		Sum of squares	**Degree of freedom**	**Mean square**	**F value**	**Level of significance**
Knowledge translation	Interclass	3805.6	3	1268.5	3	0.000
	Intraclass	1775.4	373	4.760		
	Total	5581.11	376			

H6. Associations between their number of research papers and viewpoints of respondents on knowledge translation

The viewpoints of respondents on knowledge translation in humanities in Iran were different according to their number of research papers.

As it is evident from table 7, according to the correlation coefficient and level of significance, there was a significant relationship between number of research papers by respondents and their viewpoints on knowledge translation. The results of Pearson's correlation test (table 7) revealed that the level of significance (Sig=0.000) was less than alpha (α=0.05). Therefore, the sixth hypothesis suggesting a significant and positive relationship between number of research papers and knowledge translation was accepted. In other words, as the number of research papers by respondents was increased, their viewpoints on the status of knowledge translation in Iran were more positive.

Table 7: Pearson's correlation coefficient between number of research papers by respondents and knowledge translation

	Number of research papers		
Knowledge translation	Number	Pearson's correlation	**Level of significance**
	380	0.491	**0.000**

Conclusion

Although humanities sciences play a significant and fundamental role in developing people's mind, soul and behavior, in practice, they are kept isolated and not effectively utilized. The isolation of such sciences which are fundamental to develop humanity, may lead to irreparable damage to the society. Such psychological and social damage might result in social irregularity and increasingly challenge the pivotal values of the society. Failure to practically apply these sciences in the society will make human and social actions play a less decisive role. Paying due attention to humanities and the researches devoted to it will bring about spiritual growth and rational thinking development to the society and also help the formation and improvement of theorizing seats utilizing the findings of which will lead to intellectual development of the society.

The results of this study revealed that gender and work experience variables were not statistically effective on the viewpoints of members of humanities faculties on knowledge translation. It is worth mentioning that rejecting the influence of gender on knowledge translation is a spark of hope for the status of knowledge translation in humanities in Iran since holding different viewpoints by different genders will give rise to a gap between the actual principles governing the society and the policies taken to make humanities practically applicable. It will, furthermore, hinder the optimal utilization of humanities since the equality of man and woman in academic and scientific environments has permeated the research field.

The results of the present research also demonstrated that the age of respondents has an effect on their point of view on knowledge translation. The results of Pearson's correlation test showed that with age increase, the viewpoints of humanities expert on knowledge

translation would be more positive. Knowledge translation completes knowledge cycle as utilizing research findings would lead to the realization of research objectives. This study revealed that as researchers get older they hold a more positive viewpoint on the practical application of research results. It seems as if, with age increase, the scientific view of researchers would be more complete and the necessity to practically utilize the researches would be more obvious to them.

According to ANOVA test and level of significance, a significant relationship was detected between the academic rank of respondents and their viewpoints on knowledge translation in humanities in Iran. In this research, the most positive viewpoint on knowledge translation was held by the associate professors. Most researchers have considered knowledge translation as the process in which mutual exchange and interaction of knowledge (knowledge presentation and knowledge utilization) has a very vital role. This view is more positively held by associate professors who are higher than assistant professors and instructors in their academic rank. This more positive viewpoint might be attributed to the associate professors' knowledge and experiences gained through long years of teaching and research. Although associate professors have less work experience and fewer researches in comparison with professors, their more positive viewpoint might be due to their higher motivation.

The findings of this research showed that the academic disciplines of the respondents influence their viewpoints on knowledge translation in humanities in Iran. From among members of humanities faculties, the experts of humanities from psychology and educational sciences subgroups evaluated knowledge translation status more positively than those of other subgroups while the experts of social sciences had a more negative point of view towards it. The experts of psychology and educational sciences subgroups expressed a more positive point of view because they feel the importance of utilizing research results more than those of other disciplines. The experts of social sciences, on the other hand, usually hold a critical view and are closely concerned with social problems, thus, they are not satisfied with the status of knowledge translation in humanities.

According to the results of this research, the number of research papers published by members of humanities faculties affected their viewpoints on knowledge translation and there was a significant and positive relationship between them. Conducting more researches by the researchers will lead to extending their intellectual and scientific horizons. Moreover, it will result in practical thinking and will give rise to the need to practically utilize research results which was proved in this research.

The fact that knowledge translation exists and is significant in humanities in Iran is so pleasing. However, those in charge of humanities research have failed to pay due attention to knowledge translation, thus, making it a weak process which is not so flourishing. This status of knowledge translation increases the demand to form knowledge translation subgroups in humanities so as to ameliorate the practical aspect of these sciences and let their scientific results be utilized. To achieve this, different humanities departments at universities, non-governmental organizations (NGOs) and researchers are required to actively participate. Therefore, the practical aspects of humanities must be developed through providing applicable results, adjusting the attitude of elites and changing public perception in order to reduce deviation, disorder and disturbance in social, cultural, spiritual and information dimensions in the society.

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