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Review

Education and school leavers' unemployment saga: Implication for educational planning in Nigeria

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This paper reviewed the relationship between the type of education and school leavers' unemployment with the view to highlighting its implications for educational planning in Nigeria. The concept of education, reasons for steady increase in the number of unemployed school leavers and what to do in order to curb educated unemployment were discussed. The reviewed works show that the rapid extension of formal education as a result of the Universal Basic Education and other forms of free education schemes of federal and state governments in Nigeria has itself been a significant factor in the growth of widening youth unemployment in Nigeria. The review however noted that school leavers' unemployment can be reduced by making classroom education relevant to the society in which pupils and students build their careers. Another way of curbing youth unemployment is that government programmes for out-of-school education should be more attuned to the economic realities of the state or country as the case may be. The implication of this to the education planners is that they should be more proactive in identifying the unemployment problems, analyzing their relationships to the education system and the economy so that they can determine policy options.

Key words: Education, school-leavers, educational planning, unemployment in Nigeria.

INTRODUCTION

Education has been severally conceived as not only a mean for life but life itself because it carries with it all that is necessary for one to live in the society one finds him or herself. It is in the light of this that Okobia et al. (2013) opined that education is not just the machinery for transmitting the cultural heritage but a mean through which the entire person is developed so as to live successfully in the society. Conventionally, education is the process through which worthwhile knowledge, skills, values, morals and norms of the society is transmitted to its members from one generation to another. Education embodies the national goals and aspirations of a state,

nation or country. Nigeria like any other countries of the world has adopted education as instrument par excellence for affecting national development hence enshrining the citizens' alienable right to education in the constitution. The National policy on education is another bold step by the federal government on ensuring that education is continually reviewed to guarantee its adequacy and relevance to the national needs and objectives bearing in mind that education is a dynamic instrument of change (FRN, 2013: 1). The importance of education to the nation's growth and development cannot be over-emphasized; hence, every government aspires to

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provide good education to the citizens. The success of a good education is invariably dependent on good planning. Planning is the first step against failure of an enterprise such as with education policies and programmes.

Planning is a systematic process of foresighted activities aimed at finding out and assuring appropriate future actions, matching ends with available means through a sequence of prioritized choices taking into cognizance the prevailing, anticipated and dynamic environment with the sole aim of achieving stated goals based on public needs (Nwadiani, 2015). This implies that planning is the preparation for a project quite in advance in order to execute it to its logical conclusion with minimal problems. Obasan and Yomi (2011) opine that manpower approach should be applied in education planning to address the unemployment problem among educated youths. They maintained that the approach attempt to integrate economic development into educational planning. It is a conscious attempt to link the development of the educational system to the demand for educated manpower by the economies. Manpower also known as human resource is the bulk of labour available for any particular kind of work. In other words, it is the available human being with relevant skills, energies, talents, knowledge and attitude that can be committed towards the production of goods and services. That is why there is a saying that to fail to plan is to plan to fail.

Every successive administration in Nigeria whether military or civilian has made concerted efforts towards making education accessible to the entire citizenry with the belief that massive increase in formal education would help to generate economic growth and self-fulfillment. That is why Delacroix (1978) said that education has multiple functions to perform: passing on cultural values, developing critical minds, training specialized skills but noted that the promise of education cannot be fulfilled if school leavers and university graduates become dissatisfied, disillusioned and abject because they cannot put their ability to work. This is evident world over especially in the developing countries where majority of the young people after completing different stages of schooling do not find gainful employment. It therefore not a doubt that the rapid expansion of formal education has been a significant factor in the rising incidences of unemployment among school-leavers. This situation is described as educated (school-leavers) unemployment. Largely, the phenomenon is increasing as it is evident that each year the numbers of school-leavers keep on rising without equivalent increase in the economies to provide jobs. The question in everybody's lips is how can education be redirected to the economic and social realities of the present day Nigeria? In particular, what type of education will have a more direct effect on generating employment for the teeming youths? These are food for thought to the educational planners in Nigeria and world over.

OVERVIEW OF SYSTEM OF EDUCATION AND UNEMPLOYMENT IN NIGERIAN

The introduction of formal education in Nigeria dates back to 1842 when the Wesleyan Methodist Mission established the first primary school in Badagry. However, the type of education provided then was intended only to serve clerical staff needs of the colonial government which gave rise to schooling for white-collar job mentality in Nigeria. After independence in 1960, Nigerian government tried to restructure her system of education by borrowing the American 6-3-3-4 education system. This precipitated the setting up of a body in 1973 to articulate a national policy on education that will reflect the yearning and aspirations of Nigerians. The policy gave legal framework to the 6-3-3-4 system of education in Nigeria where a child is expected to spend six years in primary school before entering into junior secondary school (JSS). After three years of JSS, students who are not able to continue to senior secondary school (SSS) may go to an apprenticeship system or some other scheme for out-of-school vocational training while the SSS will be for those who are able and willing to have a complete six-year secondary education. At this point, government was not proactive in the provision of educational opportunities for those who cannot continue upto senior secondary school and in order not to be seen as weakling students are cowed into entering the senior secondary school without sound academic prowess. This to a large extent predisposes such students to unemployment after graduation since they will come out not having sound certificate or at worst end up immersed in examination malpractices. The last four year of higher education is supposed to be devoted to teaching and research relevant to national development and particularly in development of high level manpower. The problem here is that the universities which supposed to be the highest citadel of learning, has been highly politicized in areas of funding, location, admission and appointment. Tonnwe et al. (2015) noted that government's interference in all aspects of higher education because it is funded by her has left many institutions hostage to the factional policies with decisions on establishment of schools, student selection, appointments and promotions, etc., made on political grounds rather than professional or academic merit. It is on basis of this that Nwadiani (2015) asserts that the way politics is played in Nigeria and translated into education is largely responsible for the paradox of our age as its manifestations are that we have more degrees and certificates but less sense; more knowledge, but less judgment; read and pray too seldom, but watch too much television; and we desire God's love, but we hate others. What an irony? This is the bane policies in Nigerian education system.

Most recently, the introduction of the Universal Basic Education (UBE) programme in 1999 brought about an astronomical increase in pupils and students enrolment in

primary and junior secondary schools and even in senior secondary schools as some states in Nigeria such as Ebonyi made senior secondary education free. The programme though laudable has exacerbated the unemployment saga as many people including market men and women cued into the programme; hence they come out to parade certificates in offices looking for white-collar jobs. There is no gain stating the obvious that people pursue formal education with the intension to get good job to enhance, their living condition but the irony is that the more people go into formal education the more people who will be looking for jobs which are not forthcoming. Another amazing side of it is that some school leavers lack the requisite knowledge and skills for some industrial and technological based jobs a condition normally referred to as having wrong kind of education. It is in this regards that Tabotndip (2010) emphasized on the need for education to be relevant and dynamic enough to meet the demands of the recipients and nation at large. He maintained that where education fails to be dynamic, the recipients acquire skills which may not be relevant for economic ventures. Another aspect of wrong kind of education arises when policy emphasizes on one type of discipline, thereby over producing graduates who will be out of work. School-leavers' unemployment therefore refers to a condition whereby the school system produce more graduates than the number of employment in the economy. However, unemployment generally is described as the population of persons aged 15 to 64 who during the reference period, were available for work, actively seeking for work (International Labour Organisation (ILO), 1976) in Udo (2017). This implies that unemployment does not refer to everybody who is not employed but only to those who have attained working age, have the requisite skills and are eager to work but cannot find work. It is usually classified into open and disguised unemployment. Open unemployment involves people who are able and eager to work but for whom no suitable jobs are available. While disguised unemployment occurs mainly when people who are normally working full time but whose productivity is so low that a reduction in hours will have a negligible impact on total output (Ogege, 2011). The magnitude of unemployment rate is very high especially in urban areas as people in rural areas are usually self-employed in their farms and other vocations. In Nigeria with a population of over 150 million people, about 75 million are youths either in schools and/or in the labour market. The National Bureau of Statistics data as reported by Udo (2017) indicates that 15.2 million youths remain unemployed or underemployed. This number falls under the school-leavers or school drop-outs roaming the streets of major cities and towns including the uneducated in the rural villages. Similarly, Tunji (2014) reported that half of about 167 million people in Nigeria according to National Bureau of Statistics in 2012 and National Population Commission in 2013 is made up of youth

(individuals between 15 and 34 years of age). The report showed that about 11.1 million youths were unemployed in 2012. The breakdown of the percentage of the unemployed youths revealed that over 50% of all unemployed youth did not have an education above primary school; about 30% are secondary school leavers while about 20% are graduates of tertiary institutions who have remained unemployed for upward of five years after graduation (NISER, 2013) (Figure 1).

Several factors were advanced by researchers as responsible for the prevalence of youth unemployment in Nigeria. The factors are high population growth rate which is about 3.5% per annum, deficient school curriculum and poor quality of educational resources. Some experts attributed the high number of secondary school leavers as a result of the mass failure in the 2010 senior secondary school certificate in Nigeria. Other factors include: inadequate information and data for effective planning and lack of vibrant industries to absorb unemployed school leavers as a result of debilitating infrastructural deficit and souring economic recession in Nigeria. This situation calls for urgent attention of educational planners considering the fact that an idle hand is the devil's workshop.

THE NEXUS OF UNEMPLOYED SCHOOL-LEAVER IN NIGERIA

Many brilliant and talented persons have been lost to other nations in quest for greener pastures. Akindele (2010) in Obasan and Yomi (2011) noted that poor reward system for workers in Nigeria services as disincentive to work which compels best brains to seek for well-paid jobs outside the shores of Nigeria. Similarly, Obasan and Yomi (2011) observed that the younger generations are no longer interested in human capacity building due to the 'get rich quick' syndrome which inhibits youths from being alienable to employability skills acquisition and development. This has no doubt exposed the youths to all forms of vices. Delacroix (1978) noted that when the educational system are not sufficiently in harmony with the ability of the economies to absorb educated youths in productive work, the following conditions abounds: High social and economic cost; inequality gap in wealth (the rich get richer, while the poor get poorer); rural urban migration; juvenile delinquency and crime; physical ill-health; mental disturbance and resort to drugs. This justifies what is happening in Nigeria today ranging from militancy, insurgency, kidnapping to robbery which were mostly traceable to unemployed youths. It is also on record that youths who are mostly school leavers constitute about two third of the total population in Nigeria and has about 60% of them who live below poverty line, hence, they face problems such as non-access to quality education, unemployment, exposure to violence and vulnerability to sexual as well

Percentage			
100	Primary sch./below	Secondary school	Post-secondary sch.
90			
80			
70			
60			
50			
40			
30			
20			
10			
0			

Figure 1. National Youth Unemployment figures by education in 2012 (National Institute of Social and Economic (NISER), 2013).

as reproductive health related challenges (Onuoha, 2017).

The relationship between the type of education children are exposed to and their future live is so intractable and inseparable that something urgently needed to be done to safe guide future of the youth through proper planning and implementation of educational policies and programmes in Nigeria and world at large. It is true that reforms within formal education alone cannot solve the problem of unemployed school leavers. Even if imaginative changes are made in methods of instruction and content of courses at varying level of education, young people will still face the harsh realities of the labour market. Unless the youths are ready to do farm work, artisan and other professional jobs; the number of unemployed school leavers will continue to rise. Education as an integral part of the process of social and economic development will be geared toward drastic modifications in the functioning of national economies. Educational planners will take on a wider role in aligning education more closely with the nation’s new economic strategies and development policies of the government. Adjustments within the formal education in accordance with national objectives and search for economies in public and private expenditures on education while maintaining or improving quality must be a continuous exercise in the nation’s education system. Obasan et al. (2011) averred that the Nigerian educational system is over-producing the real manpower need for required national development; hence, they recommend that school work- based learning should be incorporated in studies in higher institution as an integral part of manpower planning and development strategy to reduce the burden of unemployment and poverty among youths. This could be facilitated through the education planners ensuring that curriculum at all levels of the education system in Nigeria is creative/knowledge-based, Information Communication Technology (ICT) compliance

and vocational based to move the country to a land of bright and full opportunities for all citizens as enunciated in the national policy on education (FRN, 2013: 7).

Many researchers have tried to investigate the major causes of unemployment among secondary school leavers and university graduates with the view to finding out ways of circumventing it. It was found out that the causes of unemployment generally are complex and interwoven as it vary from one country to another so also the solution to be approached according to local or national peculiarities. Some researchers were of the view that nothing should be done because time shall take care of jobless educated youths. They argue that the aspirations of school leavers are out of alignment with employment opportunities and that, given time for them to encounter with the realities of life, they will revise their expectations and establish themselves with the available jobs or settle within modest probably rural or family enterprises. Another school of thought were of the opinion that school leavers are often too young, lazy or too inexperienced but maintained that when provided with suitable training and work opportunities, will work hard to win their way forward according to their innate talents. Similarly, others argue that school leavers do not want to work with their hands except white-collar jobs. This is true because youths shun working on farms and within other village occupations for their poor prospects. It is also contended that the more a government tries to do to solve unemployment among educated youth, the more it is required to do. This situation holds true when major developments are confined to cities without serious plan for improvements in rural work opportunities and living conditions. The “take no action” view as a solution to the problem of school leavers’ unemployment cannot hold especially in the face of the socio-economic conditions in Nigeria and world over. It is imperative that immediate and far- reaching actions should be taken by government through proper planning of the education system.

WAY FORWARD

The following measures could help in curbing unemployment of school-leavers in Nigeria:

- (1) Radical curriculum reforms to relate education more closely to communities and national life,
- (2) Effective implementation of vocational and/or entrepreneurship studies at various levels of the education system.
- (3) General transformation of the economy through positive attitudinal change and holistic fight against corruption.
- (4) Proper funding of education through economic diversification.
- (5) Above all, complete over-hauling of the education system through institutional strengthening of educational policy planning and programme implementation.

Magdy (2014) in his contributions advocated for a four prong approach to reducing youth unemployment in the global perspectives, this include: capacity development; advocacy and mainstreaming; encouraging youth leadership and strengthening the national policy framework. The whole lot on the educational planners, is that the implication is that the right people who are experienced in educational planning should be engaged. There should be robust system of data collection to aid planning and government interferences in educational policy planning and implementation should be regulated through legislation.

CONCLUSION

Education is intractably related to employment because it is the driving force in manpower development. The type of education provided to people determine the type of labour force in a given place and time. It is obvious that the massive provision of formal education is the bane of the unemployment saga in Nigeria but the gains of literacy far outweigh illiteracy. Therefore, education is also capable of producing the needed change in people when we are able to identify where we have gone wrong and are willing to do it right.

It is down to every stakeholder in education to do the needful in order to have the type of education that will provide work to its recipients. Educational planners should be on top of the move while governments on their own should exhibit the right political will to provide a robust economy for quality education to thrive.

CONFLICT OF INTERESTS

The authors have not declared any conflicts of interests.

REFERENCES

- Delacroix E (1978). Educational planning and unemployed youth. International Institute of Educational Planning (IIEP), Paris: UNESCO.
- Federal Republic of Nigeria (FRN, 2013). National Policy on Education. Abuja: National Educational Research Development Centre (NERDC).
- Magdy M (2014). United Nation Development Programme (UNDP) Youth strategy 2014-2017. Bureau for policy and programme support, UNDP.
- Nwadiani, M. (2015). Planning dimensions of educational policy and programme politics in Nigeria. Lead paper at Nigerian Association for Educational Administration and Planning (NAEAP) 34th Annual national conference proceedings on politics of education and national development in Nigeria.
- Obasan KA, Yomi A (2011). Manpower planning and education in Nigeria: Between hope and hopelessness. Euro. J. Humanities Soc. Sci. 8(1).
- Ogege SO (2011). Education and the paradox of graduate unemployment: The dilemma of development in Nigeria. Afr. Res. Rev. 5(1).
- Okobia FN, Banwunna ED, Osajie JN (2013). Religious education vital tool for achieving excellence in teacher education in Nigeria in the 21st century. Delta: CEE Emmy Ventures pp. 70-84.
- Onuoha M (2017). Youth education key to development. Abuja: The nation Newspaper. Wednesday March 8, 2017.
- Tabotndip JE (2010). Planning in Education. Onitsha: West and Solomon Publishing Co Ltd.
- Tonwe, UAC, Ojogho J, Ogeleka AI (2015). Politics of Higher Education Policies and Programmes in Nigeria. NAEAP 34th Annual national conference proceedings publications on politics of education and national development in Nigeria.
- Tunji A (2014). Youth unemployment in Nigeria: The state of youth unemployment in Nigeria. Africa in focus. Tuesday September 23, 2014.
- Udo B (2017). National Bureau of Statistics report on unemployment rate in Nigeria. Premium Times. Sunday February, 2017. Abuja.

Full Length Research Paper

Observational learning on industry work practices toward job readiness

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This research aims to find out the influence of observational learning on job readiness based on some indicators and variables. This is a quantitative research in which Structural Equation Modeling (SEM) was used. The research method is survey. The participants of this research are the Grade XII students of Accountancy Department of State Vocational High School, Tangerang regency, Banten in the 2016-2017 academic year. Stratified random sampling was used to select the respondents. The research instrument used to collect data is a form of questionnaire. Data were obtained from the students who have done industry work practice. The hypothesis test result shows that observational learning has significant influence on job readiness. The result of this research shows that the following indicators: attentional processes, retention processes, motor reproduction/behavioral processes, and motivational processes contribute positively to variable measurement of observational learning. While indicators of ethical competency, knowledge competency, capability competency, respect for human right and value, analysis competency contribute positively to measurement result of job readiness.

Key words: Observational learning, industry work practice, job readiness.

INTRODUCTION

One of the labor problem in Indonesia recently is there are many graduate students of vocational high school especially accountancy department that are not employed, since they are not ready. Job readiness can be measured from their competence. Based on the data of the Central Bureau of Statistics, the number of vocational high school graduates that work in industries from 2010 to 2014 was about 36.63%. Widarto et al. (2012) stated that our labor force still lacks qualified people.

Even though the students of accountancy department of vocational high school acquire knowledge in school, it is not enough since what they learn in school is not

irrelevant to job in the real world. Based on that, it is necessary to have a real work practice, which is industry work practice. The problem is, whether effective or not that industry practice must be done.

According to EMulyana (2014), there is no appropriateness between having competence in school with the industry world. As a result, there is need of cooperation between two sides, one of which is the placement of accountant department students in the industry work practice.

Accountancy is one of the items among eight that has free labor from one country to another in Association of Southeast Asian Nations (ASEAN) region. To confront

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ASEAN Economy Community, there is need to improve our labor competitiveness. Therefore, it is necessary to make our graduates ready for job. Having appropriate industry work practice will give students' job readiness. They can learn by practicing for job in the real world.

According to Walker and Campbell (2013), job readiness has advantages and gives job satisfaction. Retention skill in observational learning has important role to play in job readiness. It is possible to make good choice in decision-making.

Job readiness is a visible behavioral target. It is a basic competence that one needs to learn a specific job skill and to have self-position in salary bargain to support family's life cost and self-potential dealing with future's career (Hall, 2010). Learning concept with behavior or specific skill is an observational learning (Santrock, 2011).

Observational learning can be done in industry work practice. By having it, students learn and practice effectively and directly by observing their instructor's behavior. This can improve their skill especially accountants' competence.

Debra (2011) exploring the connection between practice experience and attitude towards job competence, showed that an employer who accepts full and meaningful creation will have job competence. It means that, training or job practice influences job readiness (Edward et al., 2006; Baiti and Munadi, 2014; Yulianti and Khafid, 2015).

Monzon and Rapp (2014) conveyed that observational learning through professional model or agent improves accountancy competence; it improves one's skill to identify situation and process the information that is used to solve external problems.

Observational learning involves observing an object or model in form of pictures, videos, symbols or work instruction; an instructor or anything that can give information by imitating or following what can be seen; it involves attention, motivation, behavioral and remembering skill (Bandura, 1977; Schunk, 2012; Hergenhahn and Olson, 2009).

METHODOLOGY

This work is a quantitative research in which Structural Equation Modeling (SEM) is used. The method used in this research is survey. The survey is done with 423 students of Accountancy Department in State Vocational High School of 2016 to 2017 academic year in Tangerang regency, Banten that have done industry work practice.

Latent variable in this research is observational learning (X), and job readiness (Y) Manifest variables of observational learning are: attentional processes (x1), retention processes (x2), motor reproduction / behavioral processes (x3) and motivational processes (x4), while manifest variables of job readiness consist of: ethical competency (y1), knowledge competency (y2), capability competency (y3), respect about human right and value (y4), and analysis competency (y5).

The instrument used is questionnaire consisting of 100 questions. To test the validity of the questionnaire, Pearson product moment correlation was used; alpha Cronbach was used for its reliability by SPSS program. After using the test instrument three times on 25

samples, it showed that 85 of the instruments are valid while 15 are invalid. Results of the reliability test of the questionnaire item on observational learning and job readiness are 0.964 and 0.927.

Statistics hypothesis: $H_a: \rho_{xy} \neq 0$ observational learning has significant influence on job readiness,
 $H_o: \rho_{xy} = 0$ observational learning does not have significant influence on job readiness.

RESULTS

Confirmatory factor analysis (CFA)

In Figure 1, the construct formed based on the variables includes the unidimensional model specification with reflective indicator. Factor analysis was used to test the validity and reliability of the construct by using first order construct whose latent construct was reflected by the indicators.

Figure 1 shows that the measuring model with Maximum Likelihood Estimation (MLE) identified has unique value, since it has parameter number estimated lower than covariant number.

Evaluation result of measuring model in Table 1 shows that each item arranged in the indicators of observational learning and job readiness is valid, since it has t value > 1.96. Besides, in all the indicators, it is concluded that they have high reliability with the value of Composite-Reliability higher than 0.70. Goodness of fit model as listed in Table 2 shows the fit result.

Observational learning measurement is dominated by indicator of behavioral competence (x3) with loading factor of 0.90, while the variable of job readiness is measurement is dominated by indicator based on human right and value (y4), with loading factor of 0.99.

Structural equation modeling (SEM) analysis

In Figure 2, structural model specification in this research is a recursive model, since it has a direct relationship that the hypothesis between one construct with another has one direction of causality.

Figure 2 shows that structural model of Maximum Likelihood Estimation (MLE) identified has unique value so it can be analyzed, since it has parameter number estimated lower than covariant number. Evaluation result obtained through structural model in Table 2 shows that all indicators of variable are valid and reliable and have goodness of fit.

Analysis output result of SEM shows that R² value is about 0.14. It means that the influence of observational learning on job readiness is about 14% with error standard of about 0.053 and t-value of about 6.38. Since the t value is (6.38) higher than t table (1.96), hence H_o is rejected. It means that hypothesis test result shows that observational learning has significant influence on job readiness.

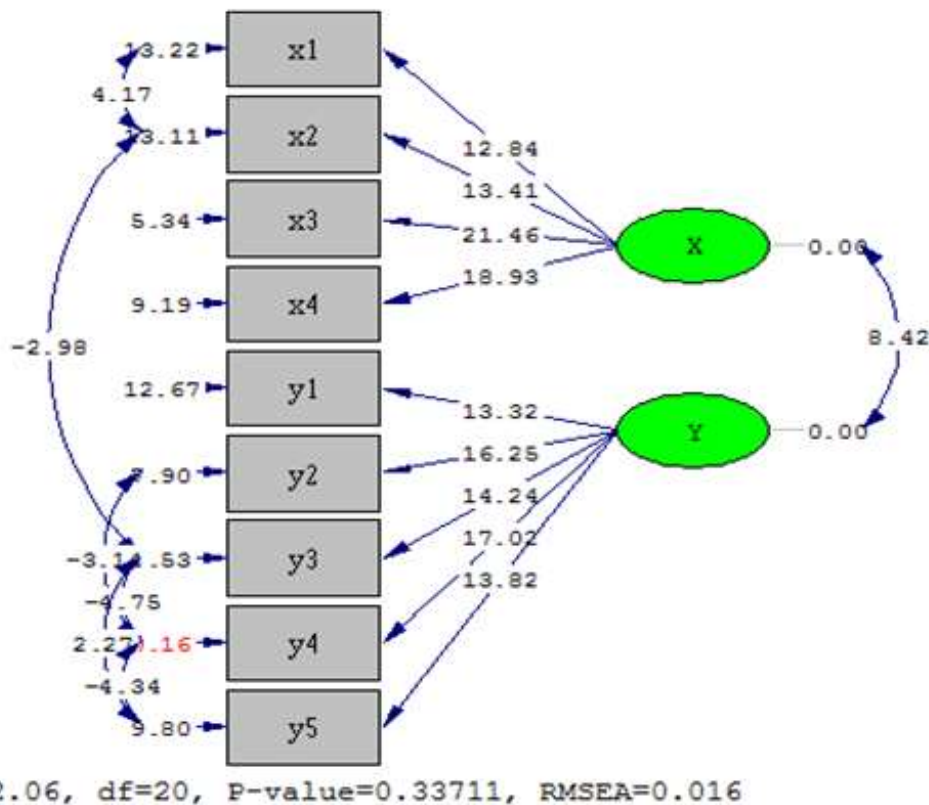


Figure 1. Measuring model.

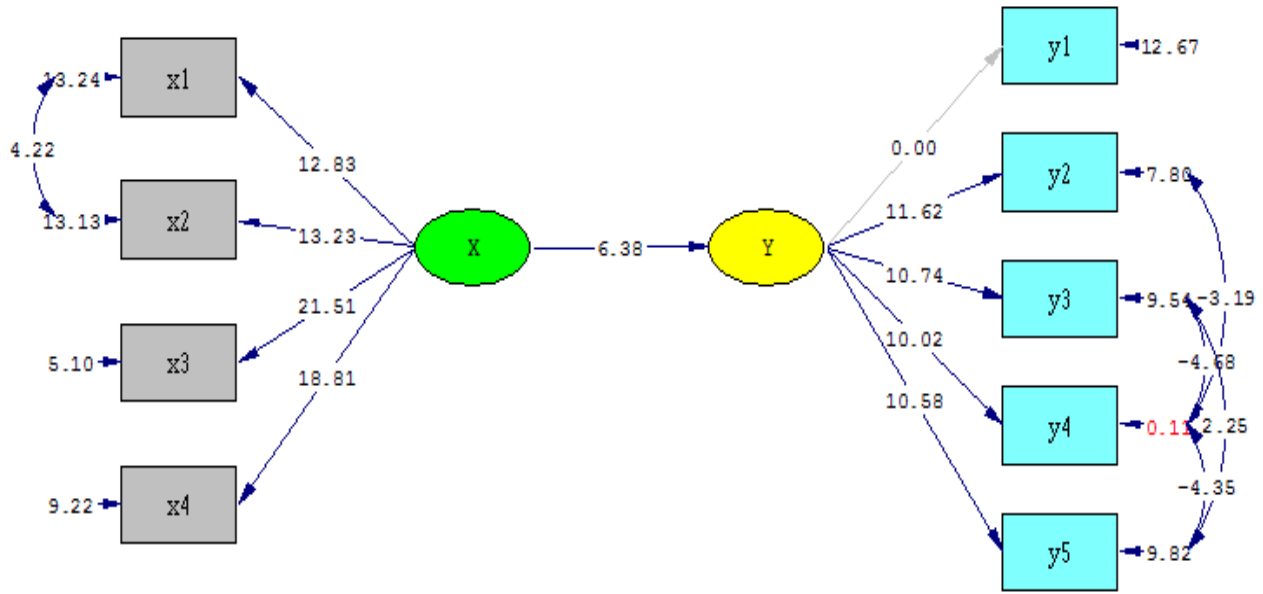
Table 1. Result of validity and reliability test measuring model X and Y.

S/N	Indicator	t-value > 1.96	Loading factor	Error	Result	Composite-reliability > 0.7
1	x1	12.84	0.60	0.64	Valid	$= \frac{(\sum \text{Std. Loading})^2}{(\sum \text{Std. Loading})^2 + \sum \epsilon_j}$ $= \frac{(2.94)^2}{(2.94)^2 + 1.77}$ $= 0.83$
2	x2	13.41	0.62	0.61	Valid	
3	x3	21.46	0.90	0.19	Valid	
4	x4	18.93	0.82	0.33	Valid	
Σ			2.94	1.77		
5	y1	13.32	0.63	0.60	Valid	$= \frac{(\sum \text{Std. Loading})^2}{(\sum \text{Std. Loading})^2 + \sum \epsilon_j}$ $= \frac{(3.81)^2}{(3.81)^2 + 2}$ $= 0.88$
6	y2	16.25	0.78	0.39	Valid	
7	y3	14.24	0.71	0.49	Valid	
8	y4	17.02	0.99	0.01	Valid	
9	y5	13.82	0.70	0.51	Valid	
Σ			3.81	2	-	-

DISCUSSION

From the result analysis of structural equation modeling, observational learning has significant influence on job readiness. It is supported by the result of analysis in all

the indicators of observational learning (attentional processes, retention processes, motor reproduction/behavioral processes, motivational processes) and variables of job readiness (ethical competency, knowledge competency, capability competency, respect for human



Chi-Square=31.12, df=21, P-value=0.07172, RMSEA=0.034

Figure 2. Structural model.

Table 2. Summary of goodness of fit measuring and structural model.

S/N	Goodness of fit	Cut-off value	Measuring model	Structural model	Result
1	Probability (P-Value)	>0.50	0.337	0.071	Fit
2	Goodness of fit index (GFI)	> 0.90	0.99	0.98	Fit
3	Root mean square error approximation (RMSEA)	≤ 0.08	0.016	0.034	Fit
4	Adjusted goodness of fit index (AGFI)	≥ 0.90	0.97	0.97	Fit
5	Comparative fit index (CFI)	> 0.90	1	1	Fit
6	Consistent akaike information index (CAIC)	< CAIC saturated and independence model	198.25 < 317.13 and 2475.71	200.25 < 317.13 and 2475.71	Fit
7	Expected cross validation index (ECVI)	< ECVI saturated and independence model	0.17 < 0.21 and 5.76	0.19 < 0.21 and 5.76	Fit

right and value, and analysis competency) that showed goodness of fit. Those result analyses are in line with opinion of Groenedijk et al (2013) who stated that observational learning has positive influence on the creativity of product design and students' competency in doing the task. The models chosen are video and work practice instruction. The participants had more motivation learning through video and work instruction. The model chosen having the same result of this research showed that the highest contributions toward observational learning variable in improving job readiness are motivation and practice competency/ students' behavior.

Rodriguez et al. (2013) research stated that

observational learning improves someone's capability in doing teachers' task. Besides, it can also improve the performance in practicing the task. The model used is video and work instruction through verbal and visualization. Learning by observing picture and written documents influences the capacity in doing the task (Janutchta, 2017). The analysis result of Suttipun (2014) showed that there is a positive relationship between ethic competency, knowledge, ability, relation competency and analysis competency of the students' job readiness.

Furthermore, Samsuddin et al. (2015) stated in his research result that certain things make someone to be confident and ready to get job as a professional

accountants: personal ability and competency to work well in a team. To have job readiness as a professional accountant is influenced by self-awareness about his ability and work experiences during work practices.

The result of this research showed that respect for human right and value has a great role to play in job readiness, while ethical competency has the lowest measurement role in job readiness. Hence, ethical competency should be first given attention to for one to be a professional accountant. It is in line with the statement of Jitpaisanwattana et al. (2014) who stated that to confront the ASEAN economic community, accountants are required to adapt to the new culture by having ethical knowledge.

In this research, three factors connect to each other based on the Bandura's theory. They are students, work practice environment and instructors' attitude or work practice instructor. The principle of theory is called reciprocal determinism model that conveyed feedback of three-sides, or feedback interaction among behaviors, environment variables and personal factors (Bandura, 1977).

Observational learning is based on Bandura cognitive theory about learning and behavioral practices feedback among human, behavior and environment. Social cognitive theory stated that social and cognitive factors, and also behavior factor played an important role in learning. Social factor includes work practice environment. Cognitive factor (student/person) is needed for students to get success, self-confidence, strategy, thinking and intelligence. Behavior factor consists of students' observation of their instructors' behavior (Santröck, 2011; Schunk, 2012).

The superiority of this research to others is about observational learning in industry work practice. Analysis result of those indicators can be a blue print for the next research. Besides, it can be an input for the industry work practice to choose the appropriate model or media in order to get fast competency mastery.

Conclusion

The hypothesis test result showed that observational learning has significant influence on job readiness. Based on data analysis result of this research conveyed that the indicators (attentional processes, retention processes, motor reproduction/behavioral processes, motivational processes) contribute positively to variable measurement of observational learning, while indicators of ethical competency, knowledge competency, capability competency, respect for human right and value, analysis competency also give positive contribution toward measurement result of job readiness. Retention indicator has the lowest measurement contribution toward the measurement of observational learning variable, while ethical competency indicator has the lowest measurement

role toward the job readiness variable. The advantage of this research is to give blue print toward the development of effective observational learning in industry work practice; the indicators that have lowest value are retention competency and ethical competency.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

REFERENCES

- Bandura A (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Baiti D, Munadi A (2014). Pengaruh Pengalaman Praktik, Prestasi Belajar Dasar Kejuruan dan Dukungan Orang Tua Terhadap Kesiapan Kerja Siswa SMK. *J. Pendidikan Vokasi*. 4(2):164-180.
- Debra LT (2011). The Effect of Training and Development on Employee Attitude as it Relates to Training and Work Proficiency. [Online]. <http://sgo.sagepub.com/content/1/3/2158244011433338.full-text.pdf+html>.
- Edward J, Q Li, Cecilia W, P Litsang, CS Lam, Karen Y, L Hui, Chetwyn C, H Chan (2006). The Effect of A "Training on Work Readiness" Program for Worker with Musculoskeletal Injuries : A Randomized Control Trial (RCT) Study. *J Occuo Rehabil*. 16:529-541.
- Jitpaisanwattana C, Pathumcharoenwattana W, Tantawutho V (2015). The Analysis and Synthesis on Education Management for Readiness Preparation of Thai Workforce in Accounting for The ASEAN Community. *Procedia-Soc. Behav. Sci*. 186:944-949.
- Monzon I, Rapp M (2014). Observational Learning With Position Uncertainly. *J. Econ. Theory*. 154:375-402.
- Mulyana E (2014). Kesesuaian Kemampuan Lulusan SMK di Dunia Kerja. *Prosiding Konvensi Nasional Asosiasi Pendidikan Teknologi dan Kejuruan (APTEKINDO) ke 7*. FPTK Universitas Pendidikan Indonesia. Bandung.
- Rodriguez AL, Alonso VL, Olmo MF (2013). Mirror neuron system and observational learning: Behavioral and neurophysiological evidence. *Behavioural Brain Research*. [Online]. <http://dx.doi.org/10.1016/j.bbr.2013.03.033>.
- Samsuddin ME, Khairani NS, Wahid EA, Sata FHA (2015). Awareness, Motivations and Readiness for Professional Accounting Education: A Case of Accounting Students in UiTM Johor. *Procedia Econ. Financ*. 31:124-133.
- Santröck JW (2011). *Psikologi Pendidikan*. Jakarta: Kencana.
- Schunk DH (2012). *Learning Theories*. Yogyakarta: Pustaka Pelajar.
- Hall VL (2010). *Work Readiness of Career and Technical Education High School Student*. Dissertation, University of Georgia, Athens. https://getd.libs.uga.edu/pdfs/hall_valery_l_201012_edd.pdf.
- Walker A, Campbell (2013). Work Readiness of Graduate Nurses and The Impact on Job Satisfaction, Work Engagement and Intention to Remain. *Nurses Educ. Today J*. 33(12):1490-1495.[Online]. doi: 10.1016/j.nedt.2013.05.008.
- Widarto, Pardjono, Widodo N (2012). Pengembangan Model Pembelajaran Soft Skills dan Hard Skills Untuk Siswa SMK. *Cakrawala Pendidikan* 31(3).
- Yulianti I, Khafid M (2015). Pengaruh Pengalaman Praktik Kerja Industri, Motivasi Memasuki Dunia Kerja, dan Kemampuan Soft Skills Terhadap Tingkat Kesiapan Kerja Siswa Kelas XII Kompetensi Keahlian Akuntansi di SMK Negeri 2 Semarang Tahun Ajaran 2014/2015. *Economic Education Analysis J*. 4:2.

Full Length Research Paper

Publication productivity of academics in Jigjiga University, Ethiopia

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This descriptive cross-sectional survey examined faculty publication productivity at Jigjiga University, Ethiopia. It, specifically, aimed at exploring the factors and barriers that may influence publication productivity among academic staffs while also comparing variations across academic disciplines. The survey employed self-administered questionnaire distributed to 120 faculties randomly selected from nine academic disciplines during February to April 2016. This observation indicated that only 38.3% of the academic faculty members have published a research work since joining Jigjiga University. Publication of journal articles was the predominant type of publication outlet (58.7%) followed by conference proceedings (13%). The analysis result indicated that there was statistically significant ($p < 0.05$) variation in publication productivity in relation to years in academic profession, highest degree earned and academic rank of the respondents. Similarly, faculty members who had track records on research grant winning, theses supervision as well as attending academic conferences and research related trainings were more likely to publish ($p < 0.05$) as against those who did not have such experiences. However, there was no statistically significant difference ($p > 0.05$) in publication productivity in relation to sex, age, teaching load and involvement in administrative activities. In addition, significant variation ($p < 0.05$) existed on publication productivity across academic disciplines. Faculties in the natural and life science fields generally appeared to publish more than those in the social sciences. Respondents cited several factors that can be implicated in the low prevalence of publication productivity at Jigjiga University. The most cited barriers in order of higher frequency include lack of recognition such as promotion, absence of institutional research journal, poor access to information sources such as internet connectivity, insufficient research facilities, lack of financial incentives, lack of institutional/department support on publication, high publication charges inquired by journals, and poor research and publication atmosphere which were agreed upon by about 75% of the respondents. Most of these obstacles were organizational in nature, and thus focus to improve research productivity should consider tackling these factors at institutional level. Therefore, results of this survey imply that understanding these inhibitory factors and designing appropriate intervention strategy may help Jigjiga University towards improving the research and publication productivity of its academic faculty members.

Key words: Publication, productivity, research, faculty, academics, Jigjiga University.

INTRODUCTION

Research plays a critical role in promoting the prosperity of a nation, and the well-being of its citizens in this knowledge-based era (Abbott and Doucouliagos, 2004). Scholars indicated that scientific research is an imperative component of success in the academic disciplines (Mezrich and Nagy, 2007), and that the assessment of the research productivity in academic institutions is an important measure of the extent of their contributions to developing new knowledge (Tess et al., 2009).

Academic institutions primarily measure research productivity based on published work, externally funded grants, and the number of citations the published work received (Middaugh, 2001; Porter and Umbach, 2001). According to Creswell (2014), the most frequently used measure of the quantity or amount of research productivity is a numerical publication count over a certain time period. The published works could be journal articles (refereed and non-refereed), books (including edited books, textbooks), book chapters, monographs, conference papers, and research proposals written to receive external and internal grants (Middaugh, 2001). The most common research productivity measures look at publications that are submitted, accepted (in press), or published (Arriola-Quiroz et al., 2010; Zhuo, 2008).

Through publication, scholars keep abreast of their field, verify information, obtain critical response to their work and redirect research interest (OMeara and Braskamp, 2005). Faculty publishing productivity is often used as an index of departmental and institutional prestige, and is strongly associated with individual (Sax et al., 2002; Warlick and Vaughan, 2007), organizational (Sypsa and Hatzakis, 2009) and environmental factors (Haines et al., 2010).

Understanding factors associated with research productivity is important for leaders of academic institutions. The identification of factors promoting or impeding research productivity has been the focus of studies in different disciplines (Toutkoushian et al., 2002). Most of these factors have been classified into two broad groups; individual and institutional factors. Individual factors included aspects such as researcher's age, gender, salary, academic rank, number of years in the profession, teaching load and the faculty members' confidence in writing refereed works. Institutional factors included the institution size, funds allocated to research, presence of research groups, departmental support, subscriptions of journals, and the availability of information technology (Wager, 2009). Although, only few studies consider disciplinary differences in their analytical models of research performance, it is also known that

faculty in different disciplines differ in their research productivity (Muis et al., 2006).

In developing countries like Ethiopia, little is known about research productivity in academic institutions and the available literature was conducted in developed countries. It is believed that faculty publication output is very low in majority of Ethiopian higher institutions, particularly in the new generation universities. For example, according to the results of a 10-year goggle search by a scholar, more than 80% of the academic publications in Ethiopia were from the four well-established universities (Library of Congress Overseas Office, 2010).

There is, thus, a need to initiate a systematic study that identifies the extent of publication productivity and determine factors, and barriers that may influence research publication among academic staffs. Such studies will help decision makers in universities take appropriate interventions that promote research production and remove some of the obstacles that may impede faculty publishing.

This study, therefore, explored the faculty publishing productivity, disciplinary differences in faculty research productivity, and inhibitory factors to publication among academic staffs at Jigjiga University (JJU), Ethiopia.

METHODOLOGY

Study design and population

The study employed a non-experimental cross-sectional design, and adopted the descriptive survey method. The population of this study consisted of the 2015 to 2016 on-campus teaching faculties in all colleges at Jigjiga University. Jigjiga University is one of the higher learning institutions in Ethiopia established in 2007.

Sampling technique and sample size determination

A multi-stage sampling procedure was adopted. First, colleges, institutes and schools were selected. Secondly, departments were randomly selected from each of the colleges/institutes/schools. Third, a sampling frame of 50% of academics in each of the departments was selected randomly, and invited for participation. The newness of the academic unit, and its faculties was considered at each stage of the sampling procedure. The sample size adjustment was considered to compensate for attrition (namely, inadequately filled or missing questionnaires).

Data collection instrument and protocol

The instrument used to collect data for this study was a questionnaire. In order to determine the level of publication

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Table 1. Socio-demographic features and academic profile of participants (n=120).

Characteristics	Category level	Frequency	Percentage
Sex	Male	114	95
	Female	6	5
Age	≤30	76	63.3
	>30	44	36.7
Years in academic profession	≤5	40	33.3
	>5	80	66.7
Highest degree earned	Masters	115	95.8
	Doctorate	5	4.2
Academic rank	Lecturer	107	89.2
	Assistant professor	13	10.8
Annual teaching load	≤6	12	10
	(6, 12]	76	63.3
	>12	32	26.7
Involved in administrative works	Yes	37	30.8
	No	83	69.2

productivity of the respondents, publication outputs of faculty members since joining JJU was considered. In this regard, full-time faculty members who had served for at least two years in JJU and holding master's degree and higher were recruited as respondents. The questionnaire was developed to capture information relevant to the study, and consisted of three parts.

Part 1 sought information on the general socio-demographic profile of respondents such as their gender, age, highest degree earned, academic rank, and years of experience in the academic profession. Part 2 consisted of questions regarding research, and publication activities and experiences.

In particular, respondents were requested to identify whether they had published any peer-reviewed article since joining JJU (yes/no). Those who answered in the affirmative were asked to identify the number of articles, the type of authorship and the publication outlet. Similarly, respondents were asked to report whether they had supervised postgraduate students' research (yes/no) and whether they had attended any training on research methods and publication processes after their graduation (yes/no).

In order to determine the quality of the published work, respondents were asked to identify whether such research had been accepted or published by any of the indexed journals recognized and listed by Google scholar (yes/no). The final part requested respondents to identify possible and obstacles to publishing research articles. In this section, respondents were given a list of possible inhibiting factors, based on an extensive review of the literature, and were instructed to mark as many barriers as applied. Lastly, open-ended comments were inquired from respondents to reflect their view of the research study in anticipation of changes that may occur to facilitate the implementation of the strategic research and publication objectives at JJU.

In order to increase the content validity of the questionnaire, an extensive literature review on faculty research productivity was

carried out and pilot-tested. On the basis of the outcome of the pilot survey, the final questionnaire was reformulated. Respondents were informed of the purpose of the study and consent was obtained. Respondents were also assured of confidentiality, and it was made clear to respondents that neither their names nor their academic unit would be mentioned.

Statistical analysis

The data gathered from this study were analyzed using statistical package for social sciences (SPSS-20), and presented in a descriptive fashion. Chi-square test was used to test the difference between categorical variables, and to identify factors that significantly influence respondents' research productivity. Statistical significance was held at level of 0.05.

RESULTS

The respondents surveyed were predominantly males (95%) holding master's degree (95.8%), and were at academic rank of lecturer (89.2%). Majority of the participants were younger than 30 years (63.3%), and have been in the academic profession for above 5 years (66.7%) (Table 1).

The vast majority of respondents (61.7%) did not publish any research article since joining Jigjiga University (Table 2). Among the faculty members who have published their researches, more than three fourth (84.8%) claimed to have published in journals indexed,

Table 2. Publication productivity among faculty members at Jigjiga University.

Aspects	Category level	Frequency	Percentage
Had published an article since joining Jigjiga University (n=120)	Yes	46	38.3
	No	74	61.7
Number of articles (n=46)	1	21	45.7
	2-5	13	28.3
	>5	12	26.1
Type of authorship (n=46)	Sole author	7	15.2
	Co-author	28	60.9
	Bothe sole and co-author	11	23.9
Type of publication outlet (n=46)	Journals only	27	58.7
	Conference proceedings only	6	13
	Both journals and conferences	12	26.1
	Books (book chapters)	1	2.2
Published in indexed journals (n=46)	Yes	39	84.8
	No	7	15.2

and recognized by Google scholar. It was also noted that most of the respondents (45.7%) published only one article. Publication of journal articles was the predominant type of publication outlet (58.7%) followed by conference proceedings, and co-authorship (60.9%) outnumbered sole-authorship (Table 2).

The publication productivity of Jigjiga University academics in relation to selected demographic and academic characteristics is presented in Table 3. The analysis result revealed that there was variation in publication productivity amongst the different categories of respondents in relation to various characteristics considered. The variation was statistically significant ($p < 0.05$) in relation to years in academic profession, highest degree earned and academic rank of the respondents. Senior academics, PhD holders and assistant professors showed significant superiority on research and publication productivity as compared to juniors, masters' degree holders and lecturers, respectively. Similarly, faculty members who had track records on research grant winning, theses supervision as well as attending academic conferences and research related trainings were more likely to publish ($p < 0.05$) as against those who did not have such experiences. However, there was no statistically significant difference ($p > 0.05$) in publication productivity in relation to sex, age, teaching load and involvement in administrative activities.

The respondents sampled were from different academic disciplines. The analysis result indicated that statistically significant difference existed in publication productivity ($\chi^2 = 25.28$; $P = 0.00$) among different disciplines. It was noted that more than 75% of the

respondents from veterinary medicine and dryland agriculture streams had published at least one article since joining Jigjiga University, whereas half of the respondents from law and health sciences had published. Surprisingly, none of the respondents from engineering and technology streams had published any scholarly article (Figure 1).

With regards to knowledge and perception of faculty members towards publication, the vast majority of the participants (91%) know the importance of publication and more than half of the respondents perceived it obligatory for an academic staff in a university. However, there existed considerable difference towards these issues between those who had published versus who did not. On the other hand, only a quarter (25%) of the respondents reported that publication is not a primary measure of research productivity. Under all the considered categories, higher number of participants who have not published any article since joining Jigjiga University appeared to have weak propensity towards publication as against those who had published (Table 4).

Table 5 summarizes possible barriers and obstacles hindering publication productivity as perceived by Jigjiga University academics. The most cited barriers in order of higher frequency include lack of recognition such as promotion and publication incentives, absence of institutional research journal, poor access to information sources such as internet connectivity, insufficient research equipment/facilities, lack of financial incentives, lack of institutional/department support on publication, high publication charges inquired by journals, and poor research and publication atmosphere which were agreed

Table 3. Publication productivity of Jigjiga University academics in relation to selected demographic and academic characteristics.

Characteristics	Category level	Published since joining Jigjiga University		χ^2	P-value
		Yes (%)	No (%)		
Sex	Male (n=114)	44 (38.6)	70 (61.4)	0.67	0.80
	Female (n=6)	2 (33.3)	4 (66.7)	-	-
Age	< 30 (n=76)	28 (36.8)	48 (63.2)	0.20	0.66
	>30 (n=44)	18 (40.9)	26 (59.1)	-	-
Years in academic profession	≤5 (n=40)	10 (25)	30 (75)	4.51	0.034
	>5(n=80)	36 (45)	44 (55)	-	-
Highest degree earned	Masters (n=115)	41 (35.7)	74 (64.3)	8.39	0.004
	Doctorate (n=5)	5 (100)	0 (0)	-	-
Academic rank	Lecturer (n=107)	35 (32.7)	72 (67.3)	13.21	0.00
	Assistant professor (n=13)	11 (84.6)	2 (15.4)	-	-
Involved in administrative work	Yes (n= 37)	16 (43.2)	21 (56.8)	0.55	0.46
	No (n=83)	30 (36.1)	53 (63.9)	-	-
Annual teaching load	≤6 (n=12)	7 (58.3)	5 (41.7)	2.71	0.07
	(6, 12) (n=76)	29 (38.2)	47 (61.8)	-	-
	>12 (n=32)	10 (31.3)	22 (68.7)	-	-
Participated in research related training	Yes (n=43)	20 (46.5)	23 (53.5)	1.89	0.17
	No (77=)	26 (33.8)	51 (66.2)	-	-
Participated in publication related training	Yes (n=18)	10 (55.6)	8 (44.4)	2.66	0.578
	No (n=102)	36 (35.3)	66 (64.7)	-	-
Attended academic conferences	Yes (n=76)	38 (50)	38 (50)	11.94	0.001*
	No (n=44)	8 (18.2)	36 (81.8)	-	-
Had supervised thesis	Yes (n=22)	14 (63.6)	8 (36.4)	7.29	0.006*
	No (n=98)	32 (32.7)	66 (67.30)	-	-
Received research grant	Yes (n=53)	30 (56.6)	23 (45.4)	11.94	0.00
	No (n=67)	16 (23.9)	51 (76.1)	-	-

upon by about 75% of the respondents.

Obstacles such as stringent publication process to publish on quality journals, technical difficulties in journal selection, subscription and submission, and heavy teaching load were reported by approximately half of the respondents. The least cited barriers encompass lack of interest on publication, inadequate experience in research methodology, lack of awareness on publication, and lack of self-interest in carrying out research (Table 5).

DISCUSSION

This descriptive observation indicated that only 38.3% of the academic faculty members have published a

research work since joining Jigjiga University, and 84.8% of these claimed to have published in indexed and learned journals. This finding does not strongly confirm the culture of publish or perish in academic institutions. Most of the methods for measuring research productivity involve measuring the number of scholarly articles published. Through publication, scholars keep abreast of their field, verify information, obtain critical response to their work and redirect research interest (O Meara and Braskamp, 2005; AAU, 2008).

The literature suggests that research is not done until it is published, and publications enable academics to earn recognition in academic circles locally and internationally. In higher education, research publication often served as a major role in attaining success in academics circles as it is related to promotion, tenure, and other recognitions

Publication productivity by discipline

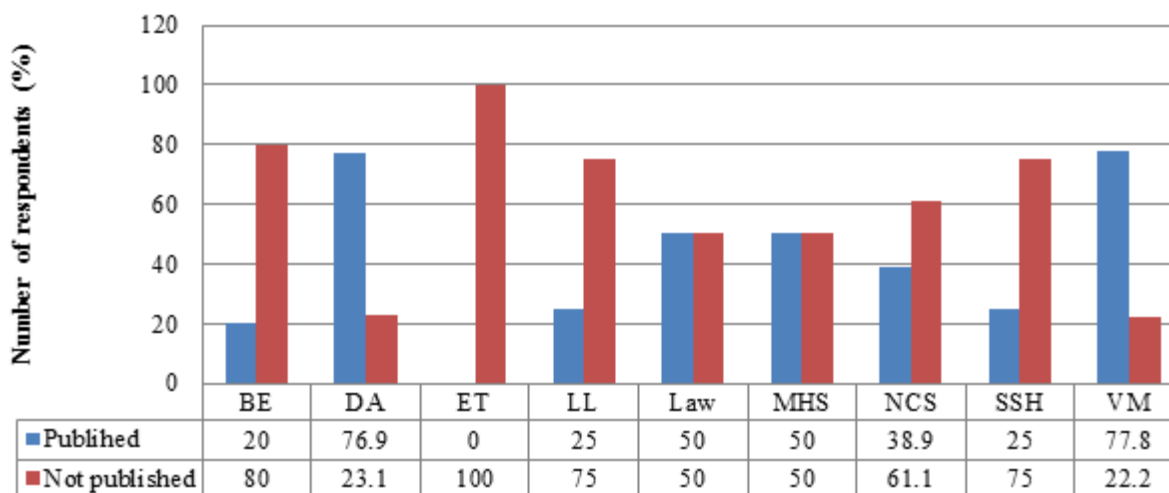


Figure 1. Faculty publication productivity by discipline. BE= Business and Economics; DA= Dryland Agriculture; ET= Engineering and Technology; LL= Language and Literature; MHS= Medicine and Health Sciences; NCS= Natural and Computational Science; SSH= Social Science and Humanities; VM= Veterinary Medicine; $P < 0.001$ ($\chi^2 = 25.28$; $P = 0.00$).

Table 4. Perception and attitude of Jigjiga University faculty towards publication (n= 120).

Aspects	Category level	Published since joining Jigjiga University	
		Yes	No
How perceiving publication	Obligatory (n=63)	30 (47.6)	33 (52.4)
	Not obligatory (n=4)	2 (50)	2 (50)
	Necessary but not obligatory (n=48)	13 (27.1)	35 (72.9)
	Do not know (n=5)	1 (20)	4 (80)
Knows the importance of Publication	Yes (n=111)	46 (41.4)	65 (58.6)
	No (n=9)	0 (0)	9 (100)
Is publication a primary measure of research productivity?	Yes (n= 90)	41 (45.6)	49 (54.5)
	No (n=30)	5 (16.7)	25 (83.3)

(Bloedel, 2001; Kotrlik et al., 2002; Bassegy et al., 2007).

The low prevalence of research and publication productivity reported in this study could be attributed to various factors. An examination of the literature reveals that the factors influencing faculties' research productivity have been studied for decades. There are a number of factors such as scholarship (Arora and Gambardella, 1996), age and life cycle (Levin and Stephan, 2011), research activity performance of department (Smeby and Try, 2005), scientific collaboration (Lee and Bozeman, 2005), quality of training or individual abilities and skills (Wichian et al., 2009), and faculty motivation and incentives (Monroe and Kumar, 2011b). These factors are generally of two types: individual variables and environmental variables. The individual and environmental

characteristics do not operate by themselves; they are interwoven with each other (Hadjinicola and Soteriou, 2006).

In the process of obtaining and disseminating knowledge, numerous personal characteristics and demographic variables impact faculty research productivity. The strength and confidence of the faculty were confirmed as necessary factors in ensuring high levels of research productivity (Bland et al., 2002). Self-motivation, essential skills and experience are the fundamental drivers that encourage lecturers to do research. If there are no fundamental drivers, even if the university provides other supportive factors, the university's efforts will be fruitless (Bay and Clerigo, 2013).

Table 5. Possible barriers and obstacles to publication productivity as perceived by Jigjiga University academics.

Inhibiting factor	Frequency (%)					Standard deviation
	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	
Lack of time in carrying out research	23 (19.2)	49 (40.8)	6 (5)	33 (27.5)	9 (7.5)	1.28
Lack of self-interest in carrying out research	36 (30)	44 (36.7)	6 (5)	28 (23.3)	6 (5)	1.27
Lack of financial incentives	8 (6.7)	18 (15)	5 (4.2)	49 (40.8)	40 (33.3)	1.24
Inadequate experience in research methodology	22 (18.3)	57 (47.5)	5 (4.2)	33 (27.5)	3 (2.5)	1.15
Inadequate experience in statistical techniques	20 (16.7)	44 (36.7)	8 (6.7)	43 (35.8)	5 (4.2)	1.23
Poor research and publication atmosphere	11 (9.2)	17 (14.2)	12 (10)	44 (36.7)	36 (30)	1.29
Technical difficulties in manuscript writing	20 (16.7)	47 (39.7)	13 (10.8)	32 (26.7)	8 (6.7)	1.22
Technical difficulties in journal selection, subscription and submission	10 (8.3)	37 (30.8)	13 (10.8)	50 (41.7)	10 (8.3)	1.18
Lack of time to prepare manuscripts for publication	21 (17.5)	52 (43.3)	7 (5.8)	29 (24.2)	11 (9.2)	1.28
Stringent publication process to publish on quality journals	9 (7.5)	13 (10.8)	24 (20)	54 (45)	20 (16.7)	1.12
Lack of interest on publication	31 (25.8)	54 (45)	16 (13.3)	14 (11.7)	5 (4.2)	1.09
Lack of awareness on publication	27 (22.5)	50 (41.7)	11 (9.2)	26 (21.7)	6 (5)	1.20
High publication charges inquired by journals	7 (5.8)	13 (10.8)	19 (15.8)	57 (47.5)	24 (20)	1.09
Heavy teaching load and schedule	11 (9.2)	42 (35)	10 (8.3)	42 (35)	15 (12.5)	1.26
Investing much time to administrative works	20 (16.7)	42 (35)	4 (3.3)	45 (37.5)	9 (7.5)	1.29
Poor access to information sources such as internet connectivity	6 (5)	11 (9.2)	10 (8.3)	48 (40)	45 (37.5)	1.13
Lack of institutional/department support on publication	2 (1.7)	16 (13.3)	14 (11.7)	50 (41.7)	38 (31.7)	1.05
Insufficient research equipment/facilities	5 (4.2)	15 (12.5)	5 (4.2)	64 (53.3)	31 (25.8)	1.08
Lack of recognition such as promotion and publication incentives	0	10 (8.3)	6 (5)	39 (32.5)	65 (54.2)	0.91
Absence of institutional (JJU) research journal	7 (5.8)	7 (5.8)	12 (10)	46 (38.3)	48 (40)	1.23

In this observation, no difference in publication productivity was noted between male and female faculty members. It is worth noting that the respondents surveyed in this study were predominantly males (95%) and thus, with this limitation it is difficult to contrast this finding with different works reported from other countries or universities. However, previous works indicated that female faculty members are less likely to publish than their male counterparts (Billard, 2013; Olatokunbo, 2013; Kyaligonza, 2015). It has been suggested that the discrepancy in research

output between males and females could be attributed, directly or indirectly, to the gender patterns in disciplinary and institutional affiliation, marital status, workload, and faculty rewards (Lyengar et al., 2009). On the other hand, another group of studies has found that there is no difference in research performance between males and females after controlling for other variables (Lee and Bozeman, 2005; Porter and Umbach, 2001).

Similarly, age was not found to be associated with publication productivity. Age has been

studied in numerous works, with conflicting results. Many studies about productivity have indicated that the relationship between publication and age is not linear, although the overall rate of publication generally declines with age (Teodorescu, 2000). Kotrlik et al. (2001) also observed that the average productivity of academic members drops with age but many senior academics remains active and that there is no significant evidence that age determines a drop in productivity. However, it is important to note that a person's age at first publication affects

consequent research productivity and that if academic lecturers submit research for their first publication at a young age, then it is more likely that they will produce more at future points in time (Levin and Stephan, 2011).

Years in academic profession, highest degree earned and academic rank significantly affected research and publication productivity of the academics in Jigjiga University. In this regard, seniors, PhD holders and assistant professors demonstrated significantly higher productivity than juniors, master's degree holders and lecturers, respectively. This observation is inconsonance with reports by numerous scholars who found that faculty staff with higher academic ranks and experience produces more research articles than those with lower academic ranks (Roberts and Turnbull, 2003; Alghanim and Alhamali, 2011). This implies that an institution vying to increase research productivity of its academic staff should ensure that the same staff has attained higher education levels and research experience (Kyaligonza, 2015).

On the other hand, the analysis result indicated that the vast majority of faculty members did not receive any training related to research and publication. But, those who received some sort of training on research skills and methodology were more likely to publish research articles. This implies that inexperienced faculty members should be acquired with the necessary research tools and methods that familiarize them with research design, proficiency in methods of statistical analyses, and techniques. The study finding in part agrees with previous reports in this regard (Alghanim and Alhamali, 2011). Szymanski et al. (2006) has demonstrated that research training environments (RTE) are associated with increased scholarly productivity, especially for early career professionals. The researcher-practitioner RTE model and the internship RTE model were found to be the most effective in fostering research interests and productivity in universities. Training is expected to develop and strengthen the skills and knowledge of the faculty members and to enable them to take up the challenging research activities. Training builds self-confidence in the minds of faculty (Subrahmanian, 2010). Wichian et al. (2009) also found that research experience and training in research gave better influence on research output utilization that research communication skills and networking and teamwork also affect research productivity.

Interestingly, attending academic conferences was associated positively with publishing research outputs. Respondents who had participated in such platforms were more likely to publish than those who had no such an experience. This could be associated with the motivation gained up on the networking on such meetings. In this study, it was also noted that faculty members who had supervised thesis and secured research grants at least once in their career demonstrated higher extent of producing scholarly

publication as against those who had no such experience.

With regards to the possible barriers and obstacles hindering publication productivity, respondents cited several factors that can be implicated in the low prevalence of publication productivity of academics at Jigjiga University. Numerous other workers reported similar factors to inhibit academics from publishing their research findings (Sabzwar et al., 2009; De Witte and Rogge, 2010; Alghanim and Alhamali, 2011).

Most of these obstacles reported were organizational in nature, and could be tackled at the institutional level. Previous studies ascribed some organizational contexts to affect faculty research. For example, Smeby and Try (2005) found that a cooperative climate has a positive impact on faculty publication while an innovative climate has a negative impact. In addition, organizational supports such as library support, technology and computing facilities for faculty activity are also predictors of faculty research performance (Lee and Bozeman, 2005). Organizational characteristics such as institutional mission and size are also modeled to control for the variance accounted for by organizational factors (Corley and Sabharwal 2007; Porter and Toutkoushian, 2006). Thus, recognition such as promotion and publication based incentives, training on research, allocating appropriate funds, departmental support and creating a research atmosphere were among measures that could be taken to increase the research output both in quality and quantity. Some other barriers are associated with journals and are beyond the control of individuals and institutions. These included obstacles such as stringent publication process, high publication charges, and technical difficulties in journal selection and subscription.

This descriptive study also evidenced that Jigjiga University academics were very good at publishing journal articles followed by conference proceedings. Book or book chapters are rarely produced publication outlets. This is in line with the well established trend in that journal publication has traditionally been the conventional way to disseminate research results and other significant scientific contributions. Although other outlets for dissemination, such as conference presentations, books and book chapters have also existed, scientists generally have looked to journal articles for reports of new findings by their colleagues. Journal publication has also been the most important way for scientists to secure credit for their research contributions. Because journals, unlike some other publication outlets, publish articles only after expert reviewers conclude that the work is worthy of being published, publication signifies that an article has sufficient merit to survive the scrutiny of peer review (Bell et al., 2007). This could also be ascribed to the fact that most of the respondents were young and have limited experience to publish books as this requires a deeper knowledge and experience.

With regards to disciplinary perspective, faculty

members in the natural and life science fields generally appeared to publish more than those in the social sciences. Academics from veterinary science followed by agriculture, health sciences as well as natural and computational sciences appeared to excel as against those from other academic disciplines. This observation is not surprising as field-specific patterns and trends can affect faculty's research productivity. Although some scholars (White et al., 2009) quite rightly argue that differences in the nature of the products produced across disciplines would make direct comparisons of productivity difficult, the literature asserts that there is considerable differences between the publication productivity of physical/biological scientists and social scientists/humanists (Stack, 2004; Shin and Cummings, 2010; Sabharwal, 2013). The higher rate of productivity among natural and life science fields can be linked in part to the time spent on research activities and the availability of grants and industrial funding. The lower number of articles produced by social scientists is in part a reflection of the nature of the discipline (longer publication time, lengthier articles, fewer grants, and the difficulty of obtaining data (Shin and Cummings, 2010). It was surprising to note that none of the respondents from the engineering and technology stream had published any scholarly article thus far. This may somehow agree with Stack (2004) who reported that faculty in engineering and math fields had a low level of research productivity similar to the social scientists. Furthermore, some workers indicated that faculty in different disciplines differ in their collaborative work in academic research, their commitments to teaching and research, and their preferred publications (Muis et al., 2006, Olatokunbo, 2013). Nevertheless, few studies consider disciplinary differences in their analytical models of research performance.

Conclusion

The present study evidenced that there was relatively low prevalence of publication productivity among academic faculty members at Jigjiga University.

Despite the limitations on the number of respondents recruited and self-reported data, this descriptive study has provided valuable insight into factors and obstacles that may hinder publication productivity and related research endeavors among faculty members in Jigjiga University. Among the socio-demographic variables considered, academic qualification, rank, discipline, track records on research grant winning, theses supervision as well as attending academic conferences and research related trainings appeared to significantly influence publication productivity of faculty members.

Furthermore, most of the inhibitory factors cited by the respondents have organizational contexts and can be managed at institutional level. Some other barriers are associated with journals and are beyond the control of

individuals and the institution. The results, therefore, indicated that tackling both the socio-demographic and institutional factors will likely increase publication output at Jigjiga University.

Recognition such as promotion and publication based incentives, training on research, allocating appropriate funds, departmental support and creating a good research atmosphere are among measures that could be taken to improve the publication output both in quality and quantity.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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REFERENCES

- Abbott M, Doucouliagos H (2004). Research output of Australian universities. *Educ. Econ. J.* 12(3):265-271.
- Alghanim SA, Alhamali RM (2011). Research productivity among faculty members at medical and health schools in Saudi Arabia: *Prevalence, obstacles, and associated factors*. *Saudi Med. J.* 32 (12):297-1303.
- Arora A, Gambardella A (1996). The Impact of NSF Support for Basic Research in Economics. Working Paper, Carnegie Mellon University, Pittsburgh, Pennsylvania.
- Arriola-Quiroz I, Curioso WH, Cruz-Encarnacion M, Gayoso O (2010). Characteristics and publication patterns of theses from a Peruvian medical school. *Health Info. Libr. J.* 27:148-154.
- Bassey U, Akuegwu B, Udida L, Udey FU (2007). Academic staff research productivity: A study of universities in South-South Zone of Nigeria. *Educ. Res. Rev.* 2(5):103-108.
- Bay BE, Clerigo ME (2013). Factors Associated with Research Productivity among Oral Healthcare Educators in an Asian University. *Int. Educ. Stud.* 6(8):124-135.
- Bell RK, Hill D, Lehming RF (2007). The Changing Research and Publication Environment in American Research Universities. Working Paper [SRS 07-204], National Science Foundation, USA.
- Billard L (2013). A different path into print', *Academe*, P 28.
- Bland CJ, Seaquist E, Pacala JT, Center B, Finstad D (2002). One school's strategy to assess and improve the vitality of its faculty. *Acad. Med.* 77(2):368-376.
- Bloedel JR (2001). Judging research productivity on an entrepreneurial campus. *Evaluation Research Productivity* 105.
- Chan SS, Burton J (1995). Faculty vitality in the comprehensive university: Changing context and concerns. *Res. Higher Educ.* 36 (2):219-233.
- Cole JR, Cole S (1973). *Social stratification in science*. Chicago: University of Chicago Press.
- Corley EA, Sabharwal M (2007). Foreign-born academic scientists and engineers: Producing more and getting less than their U.S.-born peers? *Res. Higher Educ.* 48(8):909-940.
- Creswell J (2014). *Qualitative, Quantitative, and Mixed Methods Approaches Fourth Edition*: Thousand Oaks, CA: SAGE Publications Inc.
- De Witte K, Rogge N (2010). To publish or not to publish? On the aggregation and drivers of research performance. *Scientometrics* 85:657-680.

- Hadjinicola GC, Soteriou AC (2006). Factors Affecting the Research Productivity of Operations Management Groups: An Empirical Study. *J. Appl. Mathe. Decision Sci.* 10:1-16.
- Haines M, Redman S, Jorm LR, Wozniak TM, Lujic S (2010). Putting science to work for health care reform: how much research is available to support improvements to our hospitals? *Med. J. Aust.* 192:646-650.
- Kotrlik JW, Bartlett EJ, Higgins CC, Williams HA (2002). Factors associated with research productivity of agricultural education faculty. *J. Agric. Educ.* 43(3):1-10.
- Kyaligonza R (2015). An Investigative Study of Research Productivity of the Academic Staff in Public Universities in Uganda. *Direct Res. Social Sci. Edu. Stud.* 2(4):60-68.
- Lee S, Bozeman B (2005). The impact of research collaboration on scientific productivity. *Social Studies of Science* 35(5):673-702.
- Levin S, Stephan P (2011). 'Research productivity over the life cycle: evidence for academic scientific'. *Am. Econ. Rev.* 81(1):114-132.
- Library of Congress Overseas Office (2010). *Ethiopia Journals Indexed*, Nairobi, Kenya.
- Mezrich R, Nagy PG (2007). The academic RVU: a system for measuring academic productivity. *J Am Coll Radiol* 4:471-478.
- Middaugh MF (2001). *Understanding faculty productivity: Standards and benchmarks for colleges and universities*. San Francisco: Jossey-Bass.
- Monroe SR, Kumar R (2011b). *Motivations and Incentives for Academic Research: A Basis for Improvement in Publication Productivity*. Metropolitan State College of Denver, Denver, Colorado, USA.
- Muis KR, Bendixen LD, Haerle FC (2006). Domain-generality and domain-specificity in personal epistemology research: Philosophical and empirical reflections in the development of a theoretical framework. *Educational Psychology Review* 18:3-54.
- Olatokunbo CO (2013). Research Productivity of Teaching Faculty members in Nigerian Federal Universities: An Investigative Study. *Chinese Librarianship: An Int. Electronic J.* 36:99-118.
- Porter SR, Toutkoushian RK (2006). Institutional research productivity and the connection to average student quality and overall reputation. *Econ. Educ. Rev.* 25:605-617.
- Porter SR, Umbach PD (2001). Analyzing faculty workload data using multilevel modeling. *Res. Higher Educ.* 42(2):171-196.
- Porter ST, Umbach PD (2001). Analyzing faculty workload data using multilevel modeling. *Res. Higher Educ.* 42(2):171-196.
- Roberts KK, Turnbull BJ (2003). Scholarly productivity: are nurse academics catching up? *Aust J. Adv. Nurs.* 20:8-14.
- Sabharwal M (2013). Comparing Research Productivity Across Disciplines and Career Stages. *Journal of Comparative Policy Analysis: Res. Practice* 15(2):141-163.
- Sabzwari S, Kauser S, Khuwaja AK. Experiences, attitudes and barriers towards research amongst junior faculty of Pakistani medical universities. *BMC Med. Educ.* 9:68.
- Sax LJ, Hagedorn LS, Arredondo M, DiCrisi F (2002). Faculty research productivity: Exploring the role of gender and family-related Factors. *Res. Higher Educ.* 43:423-446.
- Shin JC, Cummings (2010). Multilevel analysis of academic publishing across disciplines: Research preference, collaboration, and time on research. *Scientometrics* 85(2):581-594.
- Smeby J, Try S (2005). Departmental contexts and faculty research activity in Norway. *Research in Higher Education* 46(6):593-619.
- Stack S (2004). Gender, children and research productivity. *Res. Higher Educ.* 45:891-920.
- Subrahmanian M (2010). Evaluating Training Programmes in India Post. *Researchers World-J. Arts Sci. Commerce* 1:81-94.
- Sypsa V, Hatzakis A (2009). Assessing the impact of biomedical research in academic institutions of disparate sizes. *BMC Med. Res. Methodol.* 29:33.
- Szymanski D, Ozegovic J, Phillips J, Briggs-Phillips M (2006). Fostering Scholarly Productivity Through Academic and Internship Research Training Environments. *Train. Educ. Professional Psychol.* 1:135-146.
- Tess BH, Furuie SS, Castro RC, Barreto Mdo C, Nobre MR (2009). Assessing the scientific research productivity of a Brazilian healthcare institution: a case study at the Heart Institute of Sao Paulo, Brazil. *Clinics (Sao Paulo)* 64:571-576.
- Toutkoushian RK, Porter SR, Danielson C, Hollis PR (2003). Using publication counts to measure institution's research productivity. *Res. Higher Educ.* 44:121-148.
- Wager E (2009). Recognition, reward and responsibility: why the authorship of scientific papers matters. *Maturitas* 62:109-112.
- Warlick SE, Vaughan KT (2007). Factors influencing publication choice: why faculty choose open access. *Biomed Digit Libr* 9:1.
- White HD, Boell SK, Yu H, Davis M, Wilson CS, Cole FTH (2009). Libcitations: A measure for comparative assessment of book publications in the humanities and social sciences. *J. Am. Society Infor. Sci. Technol.* 60(6):1083-1096.
- Wichian S, Wongwanich S, Bowarnkitiwong S (2009). Factors Affecting Research Productivity of Faculty Members in Government Universities: Lisrel and Neural Network Analyses. *Kasetsart J.* 30:67-78.
- Zhuo MZ (2008). Factor: A new index for measuring academic research output. *Mol. Pain* 9:53.

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