Journal of Studies in Social Sciences
ISSN 2201-4624
Volume 5, Number 2, 2013, 301-327

Using Research Workshop to Assist Senior Members Develop Competence in Academic Writing in a Public University

Simon Gyasi Nimako[1], Humphrey Danso[2] and Francis Donkor[2]

[1]Department of Management Studies Education, University of Education, Winneba, Kumasi Campus, Ghana

[2]Department of Design and Technology Education, University of Education, Winneba, Kumasi Campus, Ghana

Corresponding author: Simon Gyasi Nimako, Department of Management Studies Education, University of Education, Winneba, Kumasi Campus, Ghana; sim.ekomerce@gmail.com

Abstract. Academics are expected to have good academic writing expertise since writing scholarly articles and getting them published in scholarly journals is a core activity in the career of an academic. The paper reports an intervention to assist senior members (SMs) who have limited experience in academic writing to improve upon their academic writing expertise. The main intervention was the use of a five-day research workshop. Fifteen SMs of the College of Technology Education, Kumasi of the University of Education, Winneba in Ghana participated in the workshop. Interviews and structured questionnaire were used to collect data on perceived improvement in respondents' academic writing expertise after their participation in the workshop. The results showed that, through the workshop, there was significant improvement in participants' motivation for academic writing and their ability to write effectively, the main sections of a research paper (e.g., Introduction and the problem statement, literature review and hypotheses, data analysis, methodology, discussion and implications, and conclusion). Implications and recommendations for management have been discussed and limitations have been noted. The study contributes to the literature in the area of faculty development in higher education.

Keywords: research workshop; academic writing expertise; action research; senior members; research paper

Introduction

Teaching, research and community service are the three main functions of universities. Out of these three functions, research continues to be a strong force that drives effective teaching and community service delivery by universities (Hemmings & Hill, 2009). Research contributes in many ways to the development of academics, higher educational institutions, and global knowledge (Reeves, McKenney, & Herrington, 2011). Thus, research occupies a special place in the activities of universities worldwide. In Ghana, the University of Education, Winneba (the context of the present study), in its attempt to become a reputable institution for world class quality teacher education, has recognised the importance of research knowledge and its dissemination in all of its activities.

The University of Education, Winneba (UEW) is a Ghanaian public university established in 1992 and mandated to train professional teachers for all levels of education in the country. Currently, it has four main campuses located at Winneba, Kumasi, Asante-Mampong, and Ajumako respectively. The mission of the University is to train competent professional teachers for all levels of education, conduct research, disseminate knowledge and contribute to educational policy and development. The vision of the University is to be an internationally reputable institution for teacher education and research.

In the quest to fulfil its vision for quality research as an institution, UEW by policy, enjoins her senior members (SMs) to publish as a requirement for securing tenure and promotion of staff. SMs are staff who have at least a Masters' degree in their specified areas. As academics and management professionals, SMs are expected to have good academic writing expertise since publishing scholarly papers in academic and professional journals is a core activity for their career development (Hemmings & Hill, 2009). The ability of SMs to publish will depend, to a large extent, on adequate knowledge and skills in academic writing, which can be developed through academic writing training (Halim & Ali, 1999; Hemmings & Kay, 2007). Though SMs are expected to have learnt the rudiments of research at first and second degree levels, in order to effectively write research papers for publication, they would still need a considerably higher level of research expertise. This is because there are many

technicalities that come with writing scholarly research papers for publication in refereed or peer reviewed journals such that novice researchers would need to learn more in order to have a firm grasp of the rudiments of academic writing to be able to make substantial contribution to knowledge in the world of scholarly writing (LaRocco & Bruns, 2006).

One strategy to boost SMs' expertise to publish is through the use of research workshops to provide training in writing research articles for scientific and academic journal publication. Another strategy is through coaching and mentoring of the novice by experienced senior lecturers and professors. However, in UEW, particularly in the College of Technology Education, Kumasi (COLTEK) – the Kumasi campus of UEW, there are relatively few senior lecturers and professors for coaching and mentoring of the novice SMs. Available statistics indicate that there is only 10% of staff in the professorial rank, 22% senior lecturers, and 68% lecturers, assistant lecturers and tutors (UEW, 2011). These figures are far below the national norms for universities in Ghana that require 20% of university academic staff to be in professorial rank, 30% to be senior lecturers, and 50% to be lecturers, assistant lecturers and tutors (UEW, 2011). One of the possible reasons is that SMs are unable to publish as frequently as required for promotion. This could be due to low level of motivation, and lack of knowledge and skills for academic writing of some SMs.

Due to the inadequate number of senior lectures and professors, the use of research workshop was deemed the most appropriate strategy to boost the academic writing expertise of the SMs with limited research experience. Preliminary interviews and personal communications with some SMs at COLTEK over a period of two months prior to the research workshop revealed that:

- Generally, SMs' motivation for research was low;
- Some SMs felt that they were inadequately equipped for academic writing and that they would need additional knowledge and skills in many aspects of academic writing such as topic selection, types of research paper that could be written for publication, and writing the main sections of a research paper (e.g. Introduction and the problem

statement, literature review and hypotheses, data analysis, methodology, discussion and implication, and conclusion);

- Some SMs felt they would need further training and practice to increase their expertise substantially in order to overcome some of their anxieties and inertia, and to boost their confidence for publishable scholarly papers.

From the above preliminary findings, it was evident that there was the need to assist SMs at COLTEK to improve upon their research expertise for academic writing. Given that SMs by the policy of UEW are required to publish in scientific and academic journals, and that their promotion and tenure are tied to the quality of papers published, it becomes critically important for them to be equipped adequately with research expertise, especially, knowledge in academic writing. Therefore, the main question of the study was: How could SMs be assisted to improve upon their academic writing expertise and be motivated for academic writing in peer-reviewed journals?

Therefore, the purpose of the study was to use research workshop to assist SMs who have limited experience in writing research papers to develop their competency in academic writing. This action research was guided by the following specific objectives:

(1) To use research workshop to develop SMs' motivation for writing scholarly papers for publication in academic journals.

(2) To use research workshop to acquaint SMs with the stages in the publishing process.

(3) To use research workshop to assist SMs to improve upon their knowledge and skills in writing effectively the main sections of a scholarly research paper (e.g. Introduction and the problem statement, literature review and hypotheses, data analysis, methodology, discussion and implication, and conclusion).

(4) To assess the impact of the use of the research workshop intervention on the academic writing expertise of SMs at COLTEK.

The paper continues with a review of relevant literature, methodology, data analysis, discussion, reflection and implications, and conclusion.

Literature Review

Action Research and Action Learning

Action research and Action Learning have become two of the important types of social research in the 21st century than ever. Action research has been defined as 'as form of collective, self-reflective inquiry that participants in social situations undertake to improve: (1) the rationality and justice of their own social or educational practices; (2) the participants' understanding of these practices and the situations in which they carry out these practices.' McTaggart (1985, p.5). Stephen Corey (1953) defined action research as the process through which practitioners study their problems scientifically in order to guide, correct and evaluate their decisions and actions.

While the history of the concept of action research can be traced back to the early works of John Dewey in the 1920s, the idea of using action research in a "natural" setting can be also linked to Kurt Lewin, a social psychologist in 1940s in the United States. But the credit of using the action research in the education can be traced to Stephen Corey and others at Teachers College of Columbia University in 1949.

Action research placed its emphasis on the solution of a problem here and now in a local setting. The goal of action research is both diagnostic as well as remedial. While action research is prevalent in educational settings, its use extends to business, organisational and industrial settings (Adelman, 1993). This is because action research is enquiry with people, rather than research on people in an attempt to improve upon existing practices in a given environment (Alteichter, Kemmis, McTaggart, & Zuber-Skerritt, 2002). Some of the key characteristics of action research are that it is systematic, problem-solving in nature and enhances the competencies of the practitioners. It is also collaborative involving several parties and requires reflective critique, which is a process of becoming aware of our own perceptual biases and own practices, and how they can improve upon their practices (Alteichter et al., 2002; Cohen & Manion, 1994). In effects collaborative action research could result in Action Learning.

Action learning, according to Morgan (1983, p.9), 'is both a concept and a form of action which aims to enhance the capacities of people in everyday situations to investigate, understand and, if they wish, to change those situations in an ongoing fashion, with a minimum of external help. Action learning is concerned with empowering people in the sense that they become critically conscious of their values, assumptions, actions, interdependences, rights, and prerogatives so that they can act in a substantially rational way as active partners in producing their reality.' In effect, action learning means learning from action or concrete experience, as well as taking action as a result of this learning.

In this study, a systematic and collaborative action research approach was taken by the researchers. This also resulted in action learning among the respondents who participated in the academic writing workshop organised by the researchers.

Research expertise

Generally, expertise has been described as a talent implying that experts produce exceptional results. Additionally, expertise is characterized by a high level of proficiency; this is a relative approach, where experts are those whose achievement and experience are greater than that of novices (Hoffman, 1998). Research expertise generally includes the skills, knowledge, attitude and motivation that are acquired or learnt in a particular area of life or field of discipline that enable one to solve specific research problems effectively. This may include one's ability to write effectively for academic and scientific journals, reviewing of research papers as a reviewer, and assisting others to write journal articles, among others.

Generally, expertise as applied to research involves five key elements (although certainly they do not constitute an exhaustive list of elements in the development of expertise): metacognitive skills, learning skills, thinking skills, knowledge, and motivation (Sternberg, 1999). These are skills which researchers need to go through to develop their expertise.

Metacognitive skills refer to people's understanding and control of their own cognition. With regard to academic writing and publishing, metacognitive skills would 'encompass what an individual knows about writing papers…both with regard to the steps that are involved and with regard to how these steps can be executed effectively' (Sternberg, 1985, p. 363). Bransford, Brown & Cocking (2000), on their part, recognize metacognition as an important element for developing effective learning and training.

Learning skills is where a new researcher rediscovers the natural learner within himself or herself, works with inspiring teachers and other researchers, and begins to deeply comprehend not only basic skills, but higher-level thinking concepts (Ford et al., 2001). Learning skills are sometimes divided into explicit and implicit ones. Explicit learning is what occurs when we make an effort to learn; implicit learning is what occurs when we pick up information incidentally, without any systematic effort (Sternberg, 1986).

Thinking skills are particular ways in which people apply their minds to solving problems. There are three main kinds of thinking skills (critical, creative and practical) that individuals need to master (Sternberg 1994). Critical (analytical) thinking skills include analyzing, critiquing, judging, evaluating, comparing and contrasting, and assessing. Creative thinking skills in research include creating, discovering, inventing, imagining, supposing, and hypothesizing. Practical thinking skills in research include applying, using, and utilizing of previous research work to understand the practice of writing for academic journal publication (Sternberg, 1997).

Knowledge can include facts, information, descriptions, or skills acquired through experience or education. It can refer to the theoretical or practical understanding of a subject. There are two main kinds of knowledge (declarative and procedural) that are relevant in academic situations. Declarative knowledge is of facts, concepts, principles, laws, and the like. Procedural knowledge is of procedures and strategies. Of particular importance is procedural tacit knowledge, which involves knowing how the system in which one is operating functions (Sternberg, Wagner, Williams, & Horvath 1995). Solid knowledge of

how to write research papers effectively is an important requirement for developing staff research expertise.

Motivation is the psychological feature that arouses an organism to action toward a desired goal and elicits, controls, and sustains certain goal directed behaviours (Wigfield, Guthrie, Tonks, & Perencevich, 2004). It can be distinguished in two main kinds. A first kind of motivation is achievement motivation (McClelland 1985; McClelland, Atkinson, Clark, & Lowell 1976). People who are high in achievement motivation seek moderate challenges and risks. They are attracted to tasks that are neither very easy nor very hard. They are constantly trying to better themselves and their accomplishments. A second kind of motivation is competence (self-efficacy) motivation, which refers to persons' beliefs in their own ability to solve the problem at hand (Bandura, 1996). Experts need to develop a sense of their own efficacy to solve difficult tasks in their domain of expertise. This kind of self-efficacy can result from both intrinsic and extrinsic rewards (Amabile, 1996).

Developing staff research expertise

Developing expertise, including that of research expertise, means that individuals are constantly in a process of developing themselves when they work within a given field of study in a manner of contributing to knowledge (Sternberg, 1997). In the view of Sternberg (1999), achieving expertise is not some fixed prior level of capacity, but purposeful engagement involving direct instruction, active participation, role modelling, and reward. This means that for someone to become expert in research there is the need to go through preparation and also practice the knowledge acquired in research through writing and publishing for people to know the results of one's studies.

According to Gillespie (2002, p. 2), research experts with a strong knowledge base are able to: (1) extract a level of meaning from content information that is not apparent to novices by structuring what they know into meaningful patterns and relationships, (2) organize their knowledge around core concepts and big ideas, (3) apply cognitive strategies to select and remember information that is relevant and eliminate what is unimportant, and (4) use

metacognitive strategies to "conditionalize" their knowledge by knowing when certain concepts are useful and fluently retrieving the information necessary to solve a problem at hand. This complex knowledge base extends experts' ability to use what they know and to transfer knowledge from one problem or context to another (von Glasersfeld, 1987).

The unifying model developed by Hemmings and Hill (2009, p.22), to develop lecturers' research expertise suggested the following strategies:

(1) providing adequate time and opportunity to mull over, think through, and sound out ideas with other individual researchers and research groups;
(2) giving systematic support through coaching and mentoring programs;
(3) accessing research forums and encouraging attendance at research-oriented conferences;
(4) tailoring research training to the needs of the individual researcher and thus ensuring a diversity of newer research techniques and methods are made available;
(5) reducing the effect of outside forces that distract from research endeavours; and,
(6) incorporating discussion of the model's elements and implications in performance management meetings and future career planning.

For academic writing, the main expertise usually includes areas such as understanding and ability to write diverse types of research papers, topic selection, writing various sections of the research paper such as the e.g. Introduction and the problem statement, literature review and hypotheses, data analysis, methodology, discussion and implication, and direction for further research and conclusion of the research paper.

Factors influencing staff research development

Recent studies (Goodyear, 2006; Hemmings & Hill 2009; Hemmings & Kay 2007) have discussed some factors affecting university lecturers' research development. Increasingly, universities, or at least their managers, are being rewarded for research output, innovation, and application and, as a result, this

'reward' climate is placing a further strain on university lecturers (Goodyear, 2006). While quality research is highly esteemed within the academic world, day-to-day satisfaction in teaching and service may be perceived by new lecturers with substantial teaching workloads as their (short-term) career priority and, hence, more important than (long-term) research output (Hemmings & Hill 2009). Additionally, Hemmings and Kay (2007) demonstrated that those who research and publish compared with those who do not, have higher levels of confidence and are more likely to hold higher academic qualifications and be in more senior academic appointments. Their study further identifies two groups of lecturer: those with refereed publications and those without.

Blackmore and Sachs (2007) explain that the work of lecturers has made the decision to balance research, teaching, and service activities for many of these lecturers more difficult. This is particularly critical in the case of early career academics that usually face weighty teaching loads.

Major and Dolly (2003) identified barriers which affect lecturers' effort to conduct and publish research. The barriers they identified included workload, lack of support, and an under-developed research culture. The study further considered a range of intrinsic and extrinsic personal factors and their interaction with gender. It was found that personal characteristics, opportunities, supports, issues relating to time and time management, and training influenced motivation to engage in research and subsequent publishing. They also stated that the decision to devote time and energy to research is influenced by factors such as the research culture, peer group, expectations of supervisors about other tasks, advice from mentors, school and faculty priorities, and reward schemes.

Methodology

Study design

The study was an action research that sought to assist SMs with limited experience in writing research papers to improve their academic writing skills using research workshop. Action research is a design recommended for researchers and practitioners who intend to solve an identified problem using a

designed intervention to improve upon the situation (Child, 2007). Child (2007) explains action research as a research designed to bridge the gap between research and practice in the field of education. It could be used in both educational and non-educational settings.

Intervention design

The main intervention was the use of a five-day research workshop that targeted SMs with limited experience in writing research papers and who were interested in taking part. It was designed to cover the essentials of academic writing. The topics covered included reasons for academic writing and publishing, writing the main sections of academic research paper (e.g. Introduction and the problem statement, literature review and hypotheses, data analysis, methodology, discussion and implication, and conclusion), and stages in the publishing process. The workshop involved presentation sessions aimed at conveying information and to engage in discussions with participants, and practical sessions of problem-solving and activity-based exercises. The authors facilitated the workshop.

Participants

The research workshop was targeted at SMs of COLTEK who have limited experience in writing research papers. Out of 35 SMs invited to attend the workshop, 15 of them participated; all were accordingly selected for the study.

Intervention implementation

A programme outline was developed for the workshop indicating the topics to be covered, the time schedule, and day and date for each workshop session. The programme outline was circulated in advance to 35 targeted SMs. The workshop started from 8:30 a.m. to 12:30 p.m. from Monday to Friday. For each day, the tutorial session lasted for two and half hours and the practical work lasted for one and half hours.

During the workshop, the facilitators made PowerPoint presentations during the teaching sessions. The practical sessions involved giving participants

specific tasks that related to their research interests, discussing contributions from participants, sharing of research experiences by participants, taking questions and answering them together. Some of the workshop materials included the presentation slides, published research work on how to write for academic research journals, sample research papers, sample criteria for reviewing research articles, sets of sample questionnaires distributed to each participant for practical work, and SPSS (Version 16.0) software installed on participants' personal computers to enhance the teaching and learning of data analysis using SPSS.

Data collection procedures

The instruments used to collect data were personal dairies to record impressions about the progress of the workshop, interview guide (focus group) to collect views and comments of the respondents on their impressions about the workshop, and a questionnaire to collect data on the impact of the workshop on the academic writing expertise of the participants.

The questionnaire items (see Table 1) were developed by the researchers based on the areas and topics covered during the five-day workshop. It consisted of eight dimensions, namely: general competence and motivation for academic writing, and writing the main sections (e.g. Introduction and the problem statement, literature review and hypotheses, data analysis, methodology, discussion and implication, and conclusion). The respondents were asked to indicate their agreement or disagreement with the statements on a five-point Likert scale ranging from strongly disagree to strongly agree, weighted 1 to 5 respectively. The questionnaire was administered by the researchers at the end of the last session on the fifth and final day of the workshop. The respondents completed the questionnaires and returned them the same day at a designated office. All 15 questionnaires were returned for analysis.

For the validity and reliability of the instruments, the face and content validity were verified and established by two experts in research methodology, and the Cronbach alpha reliability (see Table 1) for each of the dimensions and their composite alpha were computed using SPSS 16.0. The Cronbach alpha

values and composite alpha for all the dimensions were above the recommended minimum of 0.7 (Johnson & Christensen 2008; Straub, Boudreau & Gefen 2004), except items relating to methodology that were 0.66, which is close to 0.7.

Table 1. Instrument reliability

Construct	Code	Measurement items	No. of items	Cronbach alpha
Writing competence	GI1	Generally, my academic writing competency has improved	4	.740
	GI2	My knowledge in research and publication has improved		
	GI3	My confidence to start research or continue publishing has been enhanced		
	GI4	My ability to write a research article has improved		
Motivation to publish	MP1	I am encouraged to publish in peer-review journal	6	.781
	MP2	My belief in myself to publish has been enhanced		
	MP3	I have been motivated to write more research articles than before		
	MP4	My interest to write research papers has been enhanced		
	MP5	My desire to contribute to knowledge is developing considerably		
	MP6	I am beginning to overcome my fears in writing research paper for publication		
Writing problem statement	PS1	The workshop has helped me to improve upon my knowledge\understanding of what research problem is	5	.921
	PS2	The workshop has helped me to improve upon my skills in writing a clear research problem statement		
	PS3	The workshop has helped me to improve upon my knowledge in how to justify research problem		
	PS4	The workshop has helped me to distinguish between justification and significant of the study		
	PS5	Overall, the workshop has helped me to understand important issues about the problem and objective of a study		

Improvement in writing literature review	LR1	The workshop has helped me to improve upon my knowledge and understanding of how to review literature	4	.878
	LR2	The workshop has helped me to distinguish between theoretical framework and conceptual framework		
	LR3	The workshop has helped me to improve upon my knowledge about research concepts, constructs and variables		
	LR4	The workshop has helped me to improve upon my knowledge of developing research hypotheses		
Improvement in data analysis	DA1	The workshop has helped me to realise the need to select appropriate statistical data analysis methods for study	3	.819
	DA2	The workshop has helped me to develop practical skills in how to analyse data		
	DA3	The workshop has helped me to improve upon my knowledge of some pitfalls or problems to avoid in data analysis		
Improvement in writing methodology	IM1	The workshop has helped me to understand the need to develop a valid and reliable research instrument	3	.664
	IM2	The workshop has helped me to improve upon my understanding of the need for appropriate data collection instrument		
	IM3	The workshop has helped me to improve upon my knowledge and understanding about issues to consider in the methodology		
Improvement in writing discussion and implication	DI1	The workshop has helped me to improve upon my understanding of the need to discuss the implications of research findings	3	.895
	DI2	The workshop has improve my knowledge on how to support findings with literature in the discussion		
	DI3	The workshop has helped me to understand better how to write the discussion section of the research paper		
Improvement in writing conclusion	IC1	The workshop has helped me to improve upon my knowledge about what should be included in the conclusion	2	.879
	IC2	The workshop has helped me to distinguish between the findings and the conclusion of a paper		
Composite alpha		All items	37	0.942

Data analysis

The interviews with the participants were analysed qualitatively using content analysis approach, while the responses from the structured questionnaire were analysed using SPSS 16.0 to determine whether the workshop has significantly helped participants to improve upon their academic writing expertise. In doing so, descriptive statistics such as item means and group mean were used to show the relative ranking of each item in the eight dimensions of the perceived improvement in respondents' academic writing competencies. Additionally, one sample t-test was used with a hypothesised mean of 4 (implying improvement) at a significance level of 0.05 to test whether the mean ratings indicated significant improvement or not.

Respondents' characteristics

Some background data of the respondents are presented in Table 2. Table 2 indicates that 80% of the respondents were males and 20% of them were females. This is generally to be expected as there are obviously more male SMs than female SMs in COLTEK. In terms of age, 53% of them were between the ages of 26 and 35 years, 33% were between 36 and 45 years, and 13% were between 46 and 55 years. Thus, most of the participants were relatively young. All the respondents had masters level of education. In terms of staff status, 80% of them were teaching staff and 20% were non-teaching staff.

Table 2. Respondents' demographic characteristics

Item	Category	Frequency	Percentage (%)
Gender	Male	12	80
	Female	3	20
Age	26-35	8	53.3
	36-45	5	33.3
	46-55	2	13.3
Staff status	Teaching	12	80
	Non-teaching	3	20
Education Level	Masters	15	100

Table 2 indicates that 80% of the respondents were males and 20% of them were females. This is generally to be expected as there are obviously more male SMs than female SMs in COLTEK. In terms of age, 53% of them were between the ages of 26 and 35 years, 33% were between 36 and 45 years, and 13% were between 46 and 55 years. Thus, most of the participants were relatively young. All the respondents had masters level of education. In terms of staff status, 80% of them were teaching staff and 20% were non-teaching staff.

Impact of research seminar on SMs' academic writing expertise

The analysis of perceived improvement in academic writing expertise of respondents is presented in Table 3. First of all, a look at the descriptive analysis in Table 3 shows that most of the mean ratings for the dimensions were four and above, and a few of them were between 3.73 and 3.93 which are close to four. This implies that most of the means indicate a rating of *agree* and could be described as improvement. In terms of the group means, the highest rated items and/or dimensions were motivation for publishing research papers ($\bar{x}$ = 4.22), followed by knowledge and skills in data analysis ($\bar{x}$ = 4.20), improvement in general research expertise ($\bar{x}$ = 4.19), and writing the methodology section of the research paper ($\bar{x}$ = 4.13). The least rated items were improvement in writing literature review ($\bar{x}$ = 4.05), discussion section ($\bar{x}$ = 4.02) conclusion part of a research paper ($\bar{x}$ = 3.93), and developing the research problem ($\bar{x}$ = 3.89).

In order to objectively and statistically conclude whether mean ratings indicate significant improvement or not (i.e. whether the use of the research workshop assisted the participants to significantly improve upon their research expertise – knowledge and skills), a one-sample t-test was applied. The one-sample t-test was used using SPSS version 16.0 to determine whether the mean ratings for each item of academic writing expertise measured were significant or not. To do this, a significant level of 0.05 was pre-determined, and a hypothetical mean of four was chosen as it could be used as an indicator of rating for agreement or improvement for each item of research expertise measured by the questionnaire. A rating of one, two or three indicates no agreement or insignificant improvement.

The results of the one-sample t-test are summarized in Table 3. From the table, the mean differences refer to the differences between the hypothetical mean (4) and the mean ratings for each item. A negative mean difference implies that the mean rating of an item is less than the hypothetical mean of four, while a positive mean difference implies that the mean rating of an item is greater than the hypothetical mean of four. The significance values (p-values) for each item show whether the negative or positive mean differences are significant or not. A negative mean difference that is significant indicates that the mean rating for that item is significantly less than the hypothetical mean, which implies there is no significant improvement. Conversely, a negative mean difference that is not significant indicates that the mean rating is equal to the hypothetical mean, which implies that there is at least some significant improvement. A positive mean difference that is significant indicates that the mean rating for the item is significantly greater than the hypothetical mean, implying that there is substantial improvement in academic writing expertise for the item. A positive but non-significant mean difference indicates that there is at least some significant improvement for the item.

The results in Table 3 indicate that there is at least some significant improvement in all the 37 items of the eight dimensions of academic writing expertise measured. Therefore, it could be concluded with 95% confidence that the use of the research workshop yielded some significant improvement in the competency of the respondents regarding academic writing.

Table 3. Analysis of perceived improvement in academic writing expertise of respondents

		Descriptive			One-Sample Test			
Dimension	**Question item**	**Mean**	**Group mean**	**Rank**	**t**	**Sig.**	**Mean difference**	**Remarks**
Academic Writing Expertise	Generally, my research competency has improved	4.27	4.19	3rd	1.74	0.104	0.267	Improved
	Overall, the research workshop has improved my knowledge and skills in writing research paper	4.20			1.38	0.189	0.200	Improved
	My knowledge in research and publication has improved	4.20			1.871	0.082	0.200	Improved
	My confidence to start research or continue publishing has been enhanced	4.20			0.564	0.582	0.067	Improved
	My ability to write a research article has improved	4.07			1.146	0.271	0.200	Improved
Motivation to publish	My belief in my self to publish has been enhanced	4.40	4.22	1st	3.055	0.009	0.400	Improved
	My desire to contribute to knowledge is developing considerably	4.20			1.382	0.189	0.200	Improved
	I am beginning to overcome my fears in writing research paper for publication	4.20			1.000	0.334	0.133	Improved
	I have been motivated to write more research articles than before	4.20			1.871	0.082	0.200	Improved
	I am encouraged to publish in peer-review journal	4.20			1.382	0.189	0.200	Improved
	My interest to write research papers has been enhanced	4.13			0.292	0.774	0.067	Improved
Writing	The workshop has helped me to improve upon my	4.07			-0.367	0.719	-0.067	Improved

Problem statement	knowledge\understanding of what research problem is							
	The workshop has helped me to improve upon my skills in writing a clear research problem statement	3.93			-0.695	0.499	-0.133	Improved
	The workshop has helped me to improve upon my knowledge in how to justify research problem	3.87	3.89	8th	1.871	0.082	0.200	Improved
	Overall, the workshop has helped me to understand important issues about the problem and objective of a study	3.87			-1.74	0.104	-0.267	Improved
	The workshop has helped me to distinguish between justification and significant of the study	3.73			-0.807	0.433	-0.133	Improved
Writing Literature Review	The workshop has helped me to improve upon my knowledge about research concepts, constructs and variables	4.07			1.146	0.271	0.200	Improved
	The workshop has helped me to improve upon my knowledge of developing research hypotheses	4.07	4.05	5th	0.000	1	0	Improved
	The workshop has helped me to distinguish between theoretical framework and conceptual framework	4.07			0.367	0.719	0.067	Improved
	The workshop has helped me to improve upon my knowledge and understanding of how to review literature	4.00			0.323	0.751	0.067	Improved
Data analysis	The workshop has helped me to improve upon my knowledge of some pitfalls or problems to avoid in data analysis	4.27			0.435	0.67	0.067	Improved
	The workshop has helped me to realise the need to	4.20	4.2	2nd	0.367	0.719	0.067	Improved

	select appropriate statistical data analysis methods for study							
	The workshop has helped me to develop practical skills in how to analyse data	4.13			1.468	0.164	0.133	Improved
Writing Methodology	The workshop has helped me to improve upon my knowledge and understanding about issues to consider in methodology	4.20	4.13	4th	0.807	0.433	0.133	Improved
	The workshop has helped me to understand the need to develop a valid and reliable research instrument	4.13			0.323	0.751	0.067	Improved
	The workshop has helped me to improve upon my understanding on the need for appropriate data collection instrument	4.07			1.74	0.104	0.267	Improved
Writing Discussion and implication	The workshop has helped me to improve upon my understanding of the need to discuss the implications of research findings	4.07	4.02	6th	1.146	0.271	0.200	Improved
	The workshop has improve my knowledge on how to support findings with literature in the discussion	4.00			0.000	1.000	0.000	Improved
	The workshop has helped me to understand better how to write the discussion section of the research paper	4.00			0.000	1.000	0.000	Improved
Writing Conclusion	The workshop has helped me to improve upon my knowledge about what should be included in the conclusion	4.00	3.97	7th	0.000	1.000	0.00	Improved
	The workshop has helped me to distinguish between the abstract and the conclusion of a paper	3.93			-0.25	0.806	-0.067	Improved

Discussion, reflections and implications of results

The use of training workshop in general to develop the capacity of staff in many organisations has long been recognised in the literature by scholars and educational practitioners (Danso, Adu, Twum-Ampomah, & Mprah, 2012; Halim & Ali, 1999; Piyali, Joshi, Satyawadi, Mukherjee, & Ranjan 2011). The quantitative analysis of the results, as demonstrated in the data analysis described above, shows that the use of the research workshop yielded the expected improvement in the academic writing expertise of the SMs who participated in the workshop.

A reflection on the whole process of the action research was revealing. As this workshop was interactive and a hands-on-experience based, it provided the opportunity for participants to ask questions, make useful contributions and suggestions that were all worth learning. The implication of this is that the research workshop provided opportunity for discussions, practice, and exchange of useful learning experiences that generated a lot of learning as expected in a community of learning. Such learning experiences could hardly occur among faculty staff without such a workshop. Shared experiences are among the key ways of developing research culture among staff in organisations (Reeves et al., 2011). One participant shared an experience of how his paper was rejected by a journal on the grounds of not fitting into journal's scope. He said:

> *I sent my paper to a journal and it was rejected outright. On seeing the subject of rejection in the email, it was like cold water had been poured on me; I felt bad! Later on, I realised that my paper was rejected because it was not within the scope of the journal.*

Another participant shared his experience during the hands-on session, revealing the determination and hard work that is required to complete a good research paper. He said:

> *You know, in writing a paper, I sit throughout the night. Sometimes it is boring and I feel like stopping the whole process. Sometimes, after writing up to a point, I get so familiar with the paper that I begin to think that the content is a common knowledge and there is nothing new that it will*

contribute. However, after submitting the manuscript, the reviewers' comments really encourage and direct me to fine-tune the paper for publication.

In an interview with some of the participants at the close of the research workshop, the participants expressed a lot of positive comments and suggestions; some are quoted below:

This informal workshop has helped me, at least to overcome my fears about writing and publishing.

I wish this type of workshop would be organised again; but this time it should be organised when most lecturers are not gone for teaching practice so they can participate [The workshop took place at a time when some lecturers had gone to some second circle schools to assess student teachers on internship].

I thank you for your willingness to help some of us in the area of research. I will need some more research materials and assistance to help me master the concepts learnt here. I think this workshop is timely.

This is a good workshop and I think we need more of this from time to time.

This study has provided some insights into the use of research workshop in faculty development. First, this paper demonstrates that through the use of well-structured and organised academic writing expertise development workshops, faculty members' research confidence, skills and knowledge could be greatly enhanced as wheels for their academic and professional development.

Second, the use of such research workshops could be a potentially rich mode of in-service training for novice researchers prior to and in facilitation of their pursuit of a PhD degree. This is important because PhD work sometimes requires little or no supervision and candidates are usually expected to

understand the rudiments of research and publication, and as far as possible, undertake an independent research work.

Third, this study particularly provides some hopes that workshops for development of staff academic writing expertise could serve as strong wheels for transferring, sharing and establishing research culture among SMs in the University. Culture is dynamic and could be transferred or shared through formal and informal avenues or meetings like the intervention described in this study.

Fourth, the present study provides some evidence that research culture could be developed greatly through such research workshops as faculty staff learn through shared experiences of community of practitioners. This could be an important step in developing organisational competences, especially in the area of sharing of tacit and implicit knowledge within an organisation (Awuah and Gebrekidan 2008).

Finally, the implication of this study is that there is the need for management of the University to facilitate the development of academic writing expertise of SMs through research workshops such as the one the authors organised informally for some SMs who availed themselves for the opportunity. The paper makes the following recommendations to management of UEW to enhance development and motivation of faculty academic writing expertise towards publishing in scientific journals:

(1) Strengthening the existing inter-faculty research seminars. This includes ensuring that these seminars are regularly organised and staff encouraged to actively participate in them. Beyond the presentations, faculties should be encouraged to establish working paper series using the papers presented at inter-faculty research seminars. In addition to the inter-faculty seminars, intra-faculty seminars could be organised within each faculty as often as possible to strengthen research culture among faculty staff.

(2) Facilitating the dissemination of research papers. The essence of research is to share knowledge for development. The University can do this through publishing the papers not only in its annual publication report, but also on the

University's website for the benefit of the general public. Also, staff research papers should regularly be made available in the libraries of the various campuses of the University. Another avenue is where the University supports individuals to organise symposia where academics and practitioners can meet to discuss research findings for national development.

(3) Establishing and developing research journal as avenues for staff publications on all campuses of the University.

Theoretically, the study provides empirical evidence on the determinants of faculty academic writing expertise development, and implies that the use of research workshop for developing staff research expertise could positively affect the need for growth, confidence, knowledge and skills of faculty staff in the area of academic writing and publishing.

Limitations of the study

While the implications of the study can be learned by other practitioners and scholars in similar contexts, the findings reported in this paper are limited to the specific context of COLTEK of UEW. Therefore, it is cautioned that generalisation of the findings may not be applicable to other universities in Ghana or even the other campuses of UEW.

Conclusion and directions for future research

The aim of the study reported in this paper was to adopt an action research approach in assisting SMs at COLTEK of UEW who have limited experience in writing research papers to improve upon their academic writing expertise using research workshop. The workshop was used to teach the fundamentals of writing papers and getting them published in scientific and academic journals. As we reflect on the process, we realise the issue is not that faculty do not want to learn, rather participants were eager for knowledge and skills that could help them to publish. Participants seemed to have a strong need for growth and development in their academic and non-academic professions.

The study found that the use of the research workshop assisted participants to develop their expertise for writing research papers in areas such as: Reasons for academic writing and publishing, writing the main sections of academic research paper (e.g. Introduction and the problem statement, literature review and hypotheses, data analysis, methodology, discussion and implication, and conclusion), and stages in the publishing process. However, it is cautioned that the findings are limited to the research context of COLTEK of the University of Education, Winneba, and that no generalisations are applicable. It is, therefore, recommended that further action research should be done using similar or different interventions, and be extended to a larger population of faculty staff, possibly countrywide. This would make it possible to compare the findings with that of the present study to further our knowledge of developing academic writing expertise of faculty members in higher education.

Reference

[1] Adelman, C. (1993). Kurt Lewin and the Origins of Action Research. *Educational Action Research*, *1*(1), 7-24.

[2] Alteichter, H., Kemmis, S., McTaggart R., & Zuber-Skerritt, O. (2002). The Concept of Action Research. *The Learning Organisation*, *9*(3), 125-131.

[3] Amabile, T. M. (1996). *Creativity in context*. Boulder, CO: Westview.

[4] Awah, G. B., & Gebrekidan, D. A. (2008). Network (interactive) position: a new view of developing and sustaining competitive advantage, competitiveness review. *An International Journal Incorporating Journal of Global Competitiveness, 8* (4): 333-350.

[5] Bandura, A. (1996). *Self-efficacy: The exercise of control*. New York: Freeman.

[6] Blackmore, J., & Sachs, J. (2007). *Performing and reforming leaders: Gender, educational restructuring, and organizational change*. Albany, NY: SUNY Press.

[7] Bransford, J., A. Brown, & R. Cocking (2000). *How People Learn: Brain, Mind, and Experience and School*. Washington, DC: National Academy Press.

[8] Child, D. (2007). *Psychology and a Teacher*. Great Britain, Trowbridge, Wiltshire: Cromwell Press.

[9] Cohen, L. and Manion, L. (1994.) *Research Methods in Education*. London.

[10] Corey, S.M. (1953). *Action research to improve school practices*. New York: Teachers College Press.

[11] Danso, H., Adu, M.K., Twum-Ampomah, M.K., & Mprah, R.K. (2012). Evaluation of in-service training for senior staff of a public university in Ghana. *Journal of Education and Practice, 3* (7): 96 – 104.

[12] Ford, J., Knight, J., & McDonald-Littleton, E. (2001). *Learning skills*. America: UT Publication.

[13] Gillespie, M.K. (2002). *EFF Research Principle: An Approach to Teaching and Learning That Builds Expertise*. Washington, DC: National Institute for Literacy.

[14] Goodyear, P. (2006). *Educational research: Quality, impact and funding*. Paper presented at the Australian Association for Research in Education Conference. Australia, Adelaide, November.

[15] Halim, A., & Ali, D. (1999). Training and Professional Development. *Bangladesh Journal of Training and Development, 9* (2), 1-19.

[16] Hemmings, B., & Hill, D. (2009). The development of lecturer research expertise: Towards a unifying model. *Issues in Educational Research, 19*(1), 14-24

[17] Hemmings, B., & Kay, R. (2007). *I'm sure I can write! Writing confidence and other factors which influence academic output*. Paper presented at the European College Teaching and Learning Conference. Slovenia, Ljubljana, June.

[18] Hoffman, R. R. (1998). *How can expertise be defined? Implications of research from cognitive psychology in exploring expertise*. New York: McMillan.

[19] Johnson, R.B., & Christensen, L. B. (2008). *Educational research: Quantitative, qualitative, and mixed approaches (3rd Ed.)*. Los Angeles: Sage.

[20] LaRocco, D.J., & Bruns, D.A. (2006). Practitioner to professor: An examination of second career academics' entry into academia. *Education, 126* (4): 626-639.

[21] Major, C.H., & Dolly, J. P. (2003). The importance of graduate program experiences to faculty self-efficacy for academic tasks. *The Journal of Faculty Development 19* (2): 89-100.

[22] McClelland, D. C. (1985). *Human motivation*. New York: Scott Foresman.

[23] McClelland, D.C., Atkinson, J.W., Clark, R. A., & Lowell, E. L. (1976). *The achievement motive*. New York: Irvington.

[24] Piyali, G., Joshi, J. P., Satyawadi, R., Mukherjee, U., & Ranjan, R. (2011). Evaluating effectiveness of a training program with trainee reaction. *Journal of Industrial and Commercial Training, 43* (4), 245-250.

[25] Reeves, T.C., McKenney, S., & Herrington, J. (2011). Publishing and perishing: The critical importance of educational design research. *Australasian Journal of Educational Technology, 27* (1), 55-65

[26] Sternberg, R.J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. New York: Cambridge University Press.

[27] Sternberg, R.J. (1986). *Intelligence applied*. Orlando, FL: Harcourt Brace College.

[28] Sternberg, R.J. (1990). *Metaphors of mind*. New York: Cambridge University Press.

[29] Sternberg, R.J. (1994). *Encyclopedia of human intelligence*. New York: Macmillan.

[30] Sternberg, R.J. (1997). *Thinking styles*. New York: Cambridge University Press.

[31] Sternberg, R.J. (1999). Intelligence as developing expertise. *Contemporary Educational Psychology, 24,* 359–375

[32] Sternberg, R.J., Wagner, R. K., Williams, W.M., & Horvath, J.A. (1995). Testing commonsense. *American Psychologist, 50*, 912–927.

[33] Straub, D., Boudreau, M., & Gefen, D. (2004). Validation guidelines for IS positivist research. *Communications of the Association for Information Systems, 13,* 380- 427.

[34] von Glasersfeld, E. (1987). *Learning as a constructive activity*. Hillsdale, NJ: Lawrence Erlbaum.

[35] University of Education, Winneba (2011). *16th Congregation Basic Statistics for University of Education, Winneba*, Publication Unit- UEW, Ghana.

[36] Wigfield, A., Guthrie, J. T., Tonks, S., & Perencevich, K.C. (2004). Children's motivation for reading: Domain specificity and instructional influences. *Journal of Educational Research, 97*, 299-309.