TEACHING RESEARCH WRITING TO FEMALE UNDERGRADUATES IN SAUDI ARABIA

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ABSTRACT Female undergraduate students and their teachers in the Department of Science at Najran University, Saudi Arabia face many challenges when it comes to producing high-quality academic writing, such as gaining access to the knowledge-based resources required for academic writing, learning the conventions used in academic writing, and acquiring and applying knowledge and skill sets within different contexts. The results suggest that the primary concerns for addressing the challenges are aligning the views of the students and teachers on the potential problems of essay writing and integrating academic-writing skills and practices into the curriculum through informal activities. To improve the teaching and practice of academic writing at Najran University, short essay assignments and literature reviews could be incorporated into existing courses, and a new intensive course on academic reading and writing could be established. Any strategy should, however, consider the value and impact of the proposed measures and the whole scope of problems faced by the students.

KEYWORDS Academic writing, Writing essays, Higher education, Self-learning, Teaching practices, Undergraduates

INTRODUCTION

Many university undergraduate students in Saudi Arabia are struggling to produce high-quality academic writing, leading to an increased demand for viable strategies to help students acquire the skills and experience to produce high-quality academic essays (Jacobs 2007). Writing is critical for connecting students to academic discourse and discipline. Female undergraduates (female colleges are separated from male colleges in Saudi Arabia) in particular, face many challenges, such as a lack of access to resources and facilities, weak scientific information, not understanding the time investment required, and limited opportunities to acquire the necessary skills and practices for writing academic essays. Teachers of academic writing face particular challenges and require specific training and development for teaching academic essay writing, taking into account the different habits and behaviors of diverse students who are engaged in different academic programs and activities.

Students play a critical role in developing their own academic writing skills and understanding of scientific knowledge by interacting with their teachers. The importance of undergraduate research has been well established over the past 25 years. A number of studies have underscored the value and essential role of undergraduate research in the context of student learning (Alshehry 2009; Crede & Borrego 2012).

Teaching and reading need to be built on individual research, course design, and activities to bring the latest research processes into the classroom and enhance the teaching and learning
environment. Effective teachers use their capacities to foster a research-based approach to learning, resource utilization, and skills development (Baldwin 2005) in order to discuss and create new knowledge (Nguyen 2007). The skills that make a good researcher are the same that are required to provide student-centered learning. Teaching that enables students to develop good research skills not only benefits the students’ immediate studies but also provides a foundation for continued learning.

The nature of academic writing depends on the relationship between teachers and students (Jenkins 2009). Thus, academic writing is both a practice and a skill set. Female undergraduates in the School of Science at the University of Najran currently acquire the scientific research skills needed for their studies through informal activities. The aim of this study was to determine the factors affecting students’ at college of education in Najran University search skills in developing their understanding and confidence in a research environment and strengthening the relationship between the students and teachers. The course was offered to the students, and after taking the course, the students were interviewed and asked about their experiences.

**KEY QUESTIONS**

To shed light on the problems faced by science teachers and students at female colleges in Saudi Arabia, this study aims to fill gaps in the literature by focusing on the perceptions of teachers and students regarding the effectiveness of academic writing instruction in improving students’ learning, understanding, practices, and skills. The results of this study will help leaders of educational college to better understand the problems facing teachers and students, so that resources and services can be used more effectively and institutions can better plan and develop programs for students and educators. A better understanding of the factors that shape the teacher’s role will enable universities and colleges to achieve high academic standards and close the gap between theory and practice regarding how academic writing is taught, learned, and practiced.

The aim of this study was to determine the factors affecting girls’ students’ research skills at College of Education at Najran University in developing their understanding and confidence in academic writing of research and strengthening the relationship between the students and teachers.

Four primary questions guided the data-collection process:

1) What are the factors affecting the students’ academic writing of research?
2) How could teachers make students’ more interested in writing a research paper?
3) What are the students’ concerns regarding writing a research paper?
4) What do teachers’ think about the problems faced by students when writing a research paper?

**REVIEW OF PREVIOUS STUDIES**

**Female Higher Education in Saudi Arabia**

The Ministry of Higher Education for Women in Saudi Arabia provides common plans, purposes, and decisions to all institutions (private and government) in terms of entry conditions, fields of
academic study, and opportunities and majors offered to female students (Alshehry 2009). Most female colleges in Najran University have departments offering bachelor’s degrees in science, education, medical fields, computer science, and science administration. This study focused mainly on academic writing among science majors in the College of Art and Science, exploring students’ perceptions about their learning needs and their attitudes during their academic study.

Academic writing requires the use of scientific resources and facilities, such as modern equipment and instructional technologies. Independent learning and self-searching are particularly important for this kind of learning, which has recently begun to feature in the rhetoric of the Saudi government’s educational planners. Also important are the opportunities available to teachers for developing their knowledge and experience to train students in standard writing practices (Haidar 1999). Even though, many international studies have expressed the changes and challenges to teaching science, there is a lack of research about science teaching in Saudi Arabia, especially in female science colleges.

Student Writing in Higher Education

Academic writing provides context to the scholarship of teaching and learning in universities. Hence, research interest in student writing in higher education is burgeoning (Tuck 2012). In Saudi Arabia, a research methods course is typically a course, or an activity within a specified course, that helps students develop basic skills for writing about research. The activity is expected to teach students basic research skills and methods; the students choose their research subject, determine the research design they want to explore, the type of data instrument to use, collection and analysis of data under the supervision and help of their teachers. At the end of the semester, the students write up their results in a research paper for extra credit to their course grade.

Students who complete academic writing assignments tend to be more active, more interested in self-learning, and more familiar with social and cultural concerns that are ideological in nature (Melese 2013). Academic writing involves the use of different cognitive abilities to negotiate authority and identity within the landscape of the university (Beard, Clegg, & Smith 2007). Drawing from previous studies, this study sought to explore and identify the conception of students and teachers regarding a good research paper in the Science Department of Najran University.

Research Paper Process

Most previous studies have focused on the process of writing research papers by describing the instructors’ expectations of the students. Encouraging students to effectively write research papers helps to develop innovative graduates and can enhance learning experiences by improving the content of the coursework at all levels (Melese, 2013). In suggesting a tenuous link between research and teaching, Jenkins et al. (2003) suggested that the connection between research and teaching should be identified, established, and strengthened, and indeed, that it is essential that institutions put into place areas within the curriculum where teaching and research can meet. Hodson (1992) proposed the processes of understanding the paper-writing process: learn a body of knowledge and ideas, such as concepts, models, and theories; participate in scientific procedures and activities; and finally, understand the issues of research design, focusing on the philosophy, history, and methodology of science. Furthermore, DebBurman (2002) suggested that student
involvement in real research projects promotes interest in learning about complex scientific content, helps develop scientific skills, and enables students to gain familiarity with the culture of science.

Most students face some obstacles when writing a research paper, such as ethical issues, understanding the required time investment, and finding needed resources (Baldwin 2005). Regarding the time investment, students need enough time to gather relevant information. Melese (2013) stressed that investigating a research problem fosters self-learning among students and good relationships between students and teachers, with both benefitting more from their experience and knowledge. Because of the large number of students enrolled in many classes (often 40 or more), students need more time than is offered by their teachers during class to work on their research projects (Alshehry, 2009). Thus, lecturers are pressured to focus on the students’ needs and illustrate the writing process more clearly (Van de Van 2009). Universities need to address these issues in order to allow the students to focus on the educational activities required in the courses.

**Student Understanding and Confidence in Research Writing**

Research skills include innovation, independent thinking, setting and solving problems, critical analysis, and handling information in a variety of ways. Qualters (2001) stated that students viewed research as a “connecting mechanism”, connecting with other course content and, more interestingly, in a personal way with faculty. Schwegler and Shamon (1982) described student research as "a close-ended, informative, skills-oriented exercise written for an expert audience by novices pretending to be expert". A student can develop a research paper to fulfill a course requirement by reading some previous studies research papers and then writing up an independent project. Encouraging students to write an individual research can positively results increasing understanding of subject matter and methodological issues of writing process, which will ultimately help develop students’ research skills (Melese 2013). Students’ ability to identify and understand research papers depends on the courses they take and the instruction they receive. Teachers often encourage independent research experiences within the respective disciplines by assessing student presentations of research projects.

The presentation of a research paper enhances the motivation of both students and teachers (Melese 2009). It is interesting to note that despite a lack of confidence in finding a suitable research subject, these students seemed to understand the purpose of writing a research paper, although they had a limited conception of how to find relevant information. Confidence in both areas usually increased after the completion of the course (Alshehry, 2009). In the area of communication, there appeared to be limited understanding of the different ways scientists communicate with each other, which conflicted with the students’ supposed understanding of the purpose of writing research papers.

Encouraging students to write their own research assessments or essays is a good training exercise in the discipline of clear and concise writing (Pineteh 2012). Students practice writing throughout their degree program, but with varying levels of success. Teaching students to effectively read the abstracts of papers while doing literature searches would improve their understanding of the
importance of including research writing in their learning skills, while also giving them confidence in their ability to write different types of papers in their future lives.

METHODOLOGY

To understand the academic writing challenges faced by female undergraduate students at Najran University, qualitative research methods were used to collect empirical data from students and lecturers. These methods were used to gain access to the multiple realities and subjective meanings of academic writing, as perceived by the students and teachers. Semi-structured interviews were conducted with 20 female undergraduate students in the Department of Science at the end of the 2013 academic year. The interview questions were developed from the four main research questions listed previously.

The participants were all female, because the educational system is separated by gender in both general and higher education institutions in Saudi Arabia, the interviews were conducted at the colleges of science and art. The interviews generally lasted 20-30 min. The questions were framed around the students’ writing skills, writing assignments, resources, and interactions with lecturers. Twenty students were asked to comment on their academic writing strengths and weaknesses as well as on ways to improve their writing skills. Interviews were also conducted with four lecturers, all female, with ages between 30 and 45 years. The lecturers were chosen because of a need to investigate the academic writing of teachers, which is related to their ability to teach students to write papers related to the course subject. During the interviews, the teachers commented on their experiences as academic writing instructors, the challenges encountered by their students, and the implications for academic development. The interview also addressed ways the challenges could be met.

Permission was obtained from the students to include their responses in this paper in accordance with local ethical consideration stated in the later sections. Notes written by the students and teachers regarding their opinions and perceptions about what makes a good research paper were collected. The initial interviews were held, and the data obtained were placed into a data grid. Follow-up interviews were conducted using the notes written previously by each interviewee. Teachers were also asked about their views on the concerns raised by the students and the problems that were encountered during the writing process. The data analysis concentrated on the subjective meanings of respondents’ opinions and thoughts and on the respondents’ appreciation of student writing at the university.

Ethical Consideration

All participation in this study was strictly voluntary, and the interviews were conducted at the convenience of the interviewees. The participants were not obliged to answer any of the questions, and they were free to withdraw from the process at any time if they felt uncomfortable. For confidentiality reasons, the names and any information that might reveal the identity of participants have been omitted. Relevant excerpts from the interviews have been quoted as lecturer or student responses, and only the faculties of the lecturers have been used in the discussion have been used in the discussion.
FINDINGS

The first and second questions in the follow-up interview focused on how the students and teachers viewed a good research paper. In the notes written by the interviewees, 20 participants cited different constructs regarding how to present a good research paper. The constructs cited by the students were subdivided into three major categories: ‘writing skills’, ‘properties of research’, and ‘mechanics of research’. The writing skills category included the ‘skills of writing’, ‘clarity of explanation by teachers’, and ‘student research background’. These findings were in agreement with one another of the perceptions cited in the students’ constructs. The constructs most frequently mentioned when the students were asked what difficulties they faced when writing a research paper were the ‘time difficulties’ (18 times), ‘searching of sources’ (19 times), and ‘creative and practiced processes’ (18 times). See Table 1 below.

Table 1. The summarized result (number of times) of students frequently during writing a research paper

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<th>Construct</th>
<th>Number of Times</th>
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In addition, as shown in Table 2, ‘clarification of teachers’ explanations’ (17 times), ‘lack of student background’ (16 times), and ‘difficulties in finding a sufficiently related topic with ethical issues’ (15 times) were also frequently cited. Furthermore, the written notes collected from the students showed similar results in time difficulties, with students frequently mentioning a lack of writing skills and difficulty with the mechanics of doing research.

Table 2. The summarized result (number of times) of teachers attitudes towards students’ academic writing

<table>
<thead>
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<tr>
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The teachers’ written notes were generally in agreement with the student data. When the constructs provided by the teachers were ranked according to their frequency, the category most frequently cited was ‘skills of writing’ (Table 1), within which ‘clarification of the research methods’, ‘student practicing with research papers’, and ‘lack of student research background’ were each repeated four times. The main categories that were the focus of this study, such as the lack of time spent conducting research, a research paper, and ethical issues, all of teachers were in agreement which they all considered those things to be problems. Third question in the interview asked about concerns regarding the mechanics of writing, the methods and issues of research design, the time spent on the research, the ease of identifying resources, and clarification from teachers on how to write a research paper. Ten students indicated that they had difficulties finding suitable research topics with enough references. In addition, those students had difficulties finding libraries where they could search for information and some lived in areas or towns with weak internet connections.
Four students reported that they could not find the books they needed in the library and had little or no internet connectivity at home. Two students stated that their family did not allow them to use the internet. Some students feared that they would fail their courses because of a lack of information sources or because their background knowledge about doing research was limited. Sixteen students stated that low internet connectivity or a lack of permission to use the internet prevented them from being able to search for the information they needed to perform their research. One student stated that she feared her teachers would not approve if she had ethical concerns or if she wrote about the work of others in her own paper. The most common problem, reported by eight of the students, was not being able to find a research topic with enough supporting background literature. Another common problem was that students did not have enough research knowledge and experience to write even a short essay that could be expanded into a research project. Five students pointed out “we do not know how to search or choose the subject, actually we do not have an experience about this before”.

All of the teachers shared the same concerns about teaching their students the writing skills of research paper and the properties of writing a good research paper. The main obstacle the teachers faced was the lack of resources and a suitable environment for the students inside and outside their colleges. All the teachers agreed that the support environment was not enough for the students to successfully search for resources, and that the students were suffering from a lack of support facilities and large class sizes. One teacher suggested that the students would benefit from access to a small library or reading room containing some books about research design, and that such a facility would help the students to better invest their time.

Regarding the students’ experiences and background writing a research paper, three teachers stated that most of the students did not know how to search for information by themselves, possibly because the students’ families did not know the importance of letting the students search freely for the information they needed. Furthermore, two teachers agreed that the students did not consider the course important for their future career and life-long learning. One teacher stated that most of the students lacked the ability to depend on themselves for acquiring the resources and information needed. Good background and knowledge for doing academic research makes it easier for students to perform difficult and complicated tasks. In addition, most students lacked the background and experience of writing short essays or doing small research projects, which was seen by all teachers as another major problem that the students faced. Moreover, the teachers felt that the lack of familiarity with writing research papers made the interactions between students and teachers more difficult.

**DISCUSSION**

The results show consistency in the responses by students and teachers with regard to their perceptions of how students could write a good research paper. There were also some constructs that were frequently mentioned in the students’ notes. The results indicate that the courses presented in the classroom are not modules that are separate from the other subjects and student activities, but that they are considered an important part of the curriculum in a broad sense, whereby curriculum and school life are involved in inclusive growth and an integrated education with extracurricular activities. Most of the teachers and students believed that good research
writing requires good information sources. In addition, most students require a specific time investment to complete a research paper, as well as greater clarity from their teachers, which was a primary concern voiced by the teachers.

The response category that was most consistently stated was the ‘lack of students’ background for doing research’ as well as the ‘difficulties in finding time to practice and do research work’. A study by Melese (2013) regarding a research-teaching link in higher education showed how research papers enhance students’ abilities to practice and motivate both students and teachers. Melese (2013) concluded that in higher learning, instructors that involve and allocate time for students to write research create a strong link between undergraduates and teaching research and thus increase the status of the institution. In addition, research writing helps enhance students’ self-learning experiences by exploring ways of teaching the coursework informally at all levels. This study shows the concerns and the problems faced by students during the required research project courses needed for graduation. Students need to have a reasonable level of understanding, however, of how to collect, record, and analyze data, prior to the start of the course. This understanding comes from undergraduate practical sessions. It is clear that students have very little understanding of how to form and test research questions. Students who complete a course in research writing will gain confidence in all areas related to research and academic writing. This was notable in the areas of designing the research paper, making the students more confident in being able to analyze the data they collected.

The lecturers in this study all agreed that a “research project” course at the last graduation level would increase the confidence and future skills of the students in a number of important areas. These finding are similar to those reported by DeBurman (2002), who assessed two groups of cell-biology students for enquiry-based learning skills and found a similar degree of increased confidence in key skill areas among those who had performed individual research projects. Such projects enable different learning outcomes and skills to be achieved, allowing students to acquire skills for lifelong learning, as illustrated by one student who stated, “I got more skills needed for my future outside the university”.

The goal of any university is to enable students to access and participate in lifelong learning, and this can be achieved through the process of engaging students in designing their own research project during their undergraduate studies. Some students lack understanding of how to design their own research, however, and there are other concerns that teachers face when assigning students research projects, such as ethical issues and getting the students to perform their own research through design courses and learning activities (Baldwin 2005). Moreover, the problem of large class sizes is compounded by the pressure on lecturers to increase throughput rates and research output, which reduce the attention that lecturers can give to students to more clearly interact and teach writing (Van de Van 2009). The results of this study show that the students had little knowledge and understanding of how to design and write research, and that there were certain obstacles and circumstances, such as few resources, little time, and a lack of a research background, which is consistent with Alshehry (2009). Some of the points raised in this study were similar to those raised in a prior study by Alshehry (2009).
IMPLICATION AND RECOMMENDATION

In Saudi Arabia, the teaching of research writing in institutions of higher education is new. The Ministry of Higher Education should consider the suggestions of lecturers, allowing strategies for successful academic writing to improve their standards of teaching. Furthermore, the Ministry of Higher Education should allow each college to provide their own guidelines according to their need in supporting student learning and understanding. Therefore, teachers should keep in touch with other professionals in their fields and participate in local and international conferences to discuss issues related to their teaching concerns, in particular, and development in general.

This study can contribute positively to this. If the instructors of research writing focus on, among other things, training opportunities and improving student self-learning and skills at an early stage to broaden student knowledge, then the teachers, students, schools, and educational systems in Saudi Arabia will set a solid foundation for the acceptance of diversity and better and equal educational opportunities in higher education. This paper describes a small study in just one college. The findings of this research may help those interested in this matter to investigate their own ways of teaching research so they can ‘transfer’ the insights gained here to other contexts. In qualitative research, transferability in the ability to generalize the range and the scope of collected information and then illuminate the factors and structures that could be best taken into consideration in other studies in the future (Lincoln and Guba 1985).

The results of this study strongly suggest that female colleges in Saudi Arabia need to be better provided with instructional needs, academic strategies, and interactive teach methods to enhance students’ writing. The leaders and lectures of the different departments are the only ones who would have the proper knowledge about the importance, need, and role of such measures for the students and be able to offer them the appropriate support to improve the current situation. Methods need to be explored to improve the teaching of research and academic writing though training and preparation. The findings of this study could contribute to the Ministry of Higher Education increasing its focus on improving instruction in academic and research writing in order to develop greater and more inclusive higher education in Saudi Arabia.

SUMMARY AND CONCLUSION

This study showed that that the perceptions of lecturers and students were not in agreement with regard to the best approach for writing a research paper, such as curriculum planning, supplements, facilities, and resources. A lack of knowledge and experience in writing research caused the students to not allocate time for research. The departmental and college environments in this study did not facilitate conducting research, and the teachers did not use different methods in their teaching that linked research with teaching. Most of the students considered their background research skills and development to be weak even prior to completing the course, and they knew that these factors, along with lacking the time management skills to complete the work on time, combined with their lack of experience to make obstacles to producing original and successful research projects.
Improvements are needed in the research methods that students are taught as well as in how the students are taught to write a research paper. This can occur by planning a curriculum that considers the students’ understanding of basic research and time management and provides the easiest methods for searching sources and references with more clarification of ethical issues. If these issues are considered, then the process of writing a research paper will be more useful and helpful. Moreover, the students can express their satisfaction and needs when teachers give them the opportunity to gain experience and learn other curricula that can help them develop good manners, behavior, and treatment. This can be achieved through future studies assessing the teaching process and determining how students can address their problems and issues with writing a research paper. In the context of higher educational institutions, universities wishing to promote strength in teaching research must provide the opportunity for undergraduates to be made more aware of the multifaceted aspects of research. Students need to understand the research environment and the responsibility of the lecturer and must be able to engage with more broadly based learning units in order to build their key knowledge skills. It is my opinion that this is the area where teaching and research can meet most effectively and have a real mutualism.

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REFERENCES


