

Excavating Minds in the Information Age: Empirical Research Relating to the Teaching of Biblical Archaeology

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ABSTRACT

Does the curriculum content of Biblical Archaeology as being taught at the University of South Africa (UNISA) develop the skills necessary for, and expected by the students and the market place? What motivates students to register for post graduate studies in religion? How can these questions be answered with scientific rigour? One could expect that these students would like to deepen their faith. Empirical research into student motivation for studying Biblical Archaeology, however, paints another picture – suggesting a pilgrimage of discovery. This is one of the interesting results that can be obtained through a simple empirical survey questionnaire. By posing nine questions, over 100 pieces of information can be obtained. Historically, research methodologies employed in Biblical Studies have been based on the phenomenological paradigm. By employing a positivist approach, the results of research conducted into student motivation for studying Biblical Archaeology at UNISA, provide far deeper insights into student profiles, motivations and expectations. Teaching staff, not only in Biblical Archaeology, need to be equipped to understand this information which can be obtained through empirical investigation. Seen from this angle, Biblical Archaeology is not merely about teaching how to turn stones – it is to be taught to turn life into a meaningful journey through the past, while keeping an eye on the present, and it could be done by including course material such as aspects of tourism in a space where people of all convictions can participate in the journey.

A INTRODUCTION

Academic curricula should have outcomes related to content, cognitive abilities and application. In other words, students should be able to gain pertinent skills by applying their minds in order to master and understand relevant content. The content to be included in a course is therefore suggested by a variety of inputs and influences, such as the history of the subject matter, as well as questions

related to why, how, where and by whom the content matter is intended to be applied and used. Answers to these questions are in constant flux, because science develops and circumstances change. Therefore, to ensure relevance, the questions should be revisited regularly.

In posing and answering these kinds of questions, more than just a hunch is needed – to the contrary, one should ask specific questions in a disciplined manner and analyse the responses with scientific rigour. In this paper, the course content of the subject Biblical Archaeology as being taught at the University of South Africa is being evaluated, taking into account whether certain skills expected by students are being addressed and developed. Is the course content preparing the students for why, where and how they are to apply the skills gained? Is the course content still topical, comprehensive enough, up-to-date, and relevant? Is it meeting the expectations of the students and the needs of the market place?

This paper forms part of a larger interdisciplinary study which investigated whether, in the light of emerging trends in tourism, biblical archaeological sites can be regarded as destinations for the "New Tourist". The purpose of investigating this link was to establish the implications of these findings on the teaching of biblical archaeology, which could identify the need for the expansion of current biblical archaeology curricula in order to train students for a possible new vocational opportunity in the field of biblical archaeo-tourism.

So, the question to ask is "What motivates students to register for studies in religion related subjects"? Some people might think that these students would like to deepen their faith and are seeking spiritual growth. Empirical research into student motivation for studying biblical archaeology however, paints another picture which suggests that many students are on a pilgrimage of discovery. This is just one of many interesting and enlightening results that were obtained through an empirical survey questionnaire which posed 9 questions to the students. Through these 9 questions, literally thousands of pieces of statistical information could be obtained.

Historically, research methodologies employed in biblical studies have been based on the phenomenological paradigm. This paper will present the results obtained through employing a positivist approach, into student motivation for studying biblical archaeology at Unisa. By using quantitative data, the results provide deeper insight into student profiles, motivations and expectations.

B THE ACADEMIC DISCIPLINE OF TOURISM

There seems to be a commonly-held misconception among academic staff that tourism is a frivolous and lightweight academic discipline:

(t)ourism, in particular, has been commonly regarded as a frivolous, superficial activity, whose lack of seriousness was contrasted by social critics with the efforts, devotion and hardships suffered by the genuine travelers of earlier times (Boorstin 1964). Tourism thus fell between the chairs: it was neither a serious productive - or creative - activity, nor did it involve – as do -, for example, sports - a serious effort, which would endow it with the halo surrounding the idea of 'work.' Only when the focus of sociological concern gradually shifted, in the late 1980s and 1990s, towards the study of consumption and popular culture - as crucial constituents of late modern society - did tourism come into its own. As it became a reputable field of study, articles, books and journals devoted to tourism proliferated, and sub-fields soon emerged. In the course of its becoming a legitimate subject of sociological and anthropological concern, researchers underwent gradual changes.¹

From the above writings of Erik Cohen of the Hebrew University of Jerusalem it can be seen that the study of tourism has been regarded by many people, including academics, as a lightweight subject mainly concerned with tour guiding and travel options. Cohen's book brings together his collection of theoretical papers, starting from the 1970s, which contributed to the opening of the field of tourism for serious social science research.

To put it candidly, just as archaeology is much more than merely a process of sifting through sand and removing rubble, tourism encompasses more than merely booking a ticket and going on a holiday.

It can be clearly seen that the discipline of tourism is often confused with the topics of travel and leisure options, hotel management and travel agencies, instead of the academic studies of sociology, anthropology, economics and culture.

This theme of the dichotomy of the study of tourism can be summarised as follows:

(i) In academe, the education and training of tourism personnel reflect two very different perspectives. The professional perspective emphasises the study and application of tourism as a business enterprise. Graduates from such programs acquire the skills to manage, promote and service the needs of the tourist market. The emphasis in many such programs is to produce well-trained professionals who will then take their place in the tourism industry. To support the training of such professionals a vast amount of literature has been produced in the form of textbooks, journals, videos and the like. While some of these programs also include, as part of their professional focus, an academic component, this

¹ Erik Cohen, *Contemporary Tourism* (Oxford: Elsevier, 2004), 2.

component is relatively undeveloped and often lacks intellectual vigour. A second approach to the study of tourism is an academic one. This approach emphasises the examination of the phenomenon of tourism as a social phenomenon worthy of study, *sui generis*. As such, this approach stresses the need to describe, explain, and understand the phenomenon and, ultimately, to generate theoretical insights that transcend the immediate concerns of the industry practitioner or the phenomenon under investigation. While insights generated from the academic study of tourism often translate into application with clear benefits for industry professionals, the primary goal of such an orientation is explanation, analysis and understanding from a liberal arts point of view.²

C PARADIGM PERSPECTIVE

Broadly speaking, there are two main paradigms in research, the positivist, which usually employs quantitative methods of research and the phenomenological, which is based on qualitative techniques. The Chambers 21st Century Dictionary³ defines "positivism" as "a school of philosophy maintaining that knowledge can come only from observable phenomena and positive facts." Pereiro⁴ says that phenomenology represents the opposite stream and that the main objective of the social researcher should be to find out what happens in a place, the meaning of the actions for those involved and their representation.

This does not necessarily mean that you have to be a positivist if you want to carry out a survey. According to Buckingham and Saunders,⁵ it is also possible to use survey techniques without endorsing all aspects of positivist philosophy. They state that most sociologists, who carry out surveys or use statistical data, would probably deny that they are positivists.

Melkert and Vos⁶ endorse this view by stating that clear cut methods of research are not exclusively part of one research tradition or paradigm, and that the positivist and the phenomenologist can use survey methods to collect data.

² Yiorgos Aspostolopoulos, Stella Leivadi and Andrew Yiannakis, eds., *The Sociology of Tourism* (London: Routledge, 1996). This quote is taken from the preface to their book.

³ *Chambers 21st Century Dictionary* (rev. ed.; Edinburgh: Chambers, 1999), 1082.

⁴ Xerardo Pereiro, "Ethnographic Research on Cultural Tourism: an Anthropological View," in *Cultural tourism research methods* (ed. Greg Richards and Wil Munsters; Wallingford: CAB International, 2010), 174.

⁵ Alan Buckingham and Peter Saunders, *The Survey Methods Workbook* (Cambridge: Polity Press, 2007), 19.

⁶ Marjan Melkert and Kathleen Vos, "A Comparison of Quantitative and Qualitative Approaches: Complementarities and Trade-offs," in *Cultural tourism*

Positivism is a framework of research similar to that adopted by the natural scientist. Here, the researcher sees people as phenomena that have to be studied from the outside, and their behaviour will be explained according to factual data. Quantitative research is usually based on the positivist paradigm but as stated by Buckingham and Saunders⁷ it is possible to carry out survey research without necessarily being a positivist. This is indicative of the deductive approach, where the starting point is a theory, usually a hypothesis, after which data is collected and analysed. The sole purpose of collecting the data is to test the hypothesis. The positivist paradigm is also known as the dominant paradigm because of its hypothetico-deductive or scientifically derived approach to research.

Positivist Paradigm	Phenomenological Paradigm
Tends to produce quantitative data	Tends to produce qualitative data
Uses large sample	Uses small sample
Concerned with hypothesis testing	Concerned with generating theories
Data is specific and precise	Data is rich and subjective
Location is artificial	Location is natural
Validity is low	Reliability is low
Generalises from sample to population	Generalises from one setting to another

Table 1: Features of the two main research paradigms⁸

Creswell⁹ states that, in qualitative studies, one uses theory deductively and places it toward the beginning of the plan for a study, whereas in quantitative research the object is to test or verify a theory, rather than develop it. The positivist researcher thus begins the study by advancing a theory, then collects data to test it and finally reflects on whether the theory has been confirmed or disconfirmed by the results of the study.

The sequence of stages for a quantitative study is thus as follows:

- (i) Expound a theory;
- (ii) Develop variables from the theory;
- (iii) Formulate hypotheses;
- (iv) Concepts and variables are made operational so that they can be measured;

research methods (ed. Greg Richards and Wil Munsters; Wallingford: CAB International, 2010), 33-34.

⁷ Buckingham and Saunders, *The Survey Methods Workbook*, 19.

⁸ Jill Collis and Roger Hussey, *Business Research* (New York: Macmillan, 2003), 55.

⁹ John W. Creswell, *Research Design: Qualitative and Quantitative Approaches* (California: Sage, 2004), 125.

- (v) Instrument is used to measure variables so that hypothesis can be tested.

The choice of paradigm will obviously influence the methodology of the study, namely the overall approach to the process, as well as methods for researching the topic and collecting the data. The positivistic paradigm tends to produce quantitative data using large samples. It is concerned with testing a hypothesis, and the data collected is specific and precise. The reliability of the results tends to be high and the validity low.¹⁰ The methodologies associated with the positivistic paradigm include cross-sectional studies, experimental studies, longitudinal studies and surveys, which can be either descriptive or analytical.

Quantitative research is mainly based on the collection of data which is analysed by means of various statistical tests and techniques. The usual method of research is the survey but experimental and observational methods can also be used.¹¹

Therefore, with quantitative research, the starting point is a theory, usually a hypothesis, after which data is collected and analysed. The purpose of collecting the data is to test the hypothesis and then to reflect on whether the theory or hypothesis has been confirmed or disconfirmed by the results of the study.

D RESEARCH QUESTION

The research question addressed in this study is as follows:

Do students who study biblical archaeology at Unisa expect to harvest any vocational opportunities through their studies, and if so, is the field of tourism one of their expected vocations?

E RESEARCH METHODOLOGY

The methodology employed was an empirical investigation into student motivation for studying biblical archaeology at Unisa by means of a self administered survey questionnaire. The emphasis of the survey was descriptive as well as analytical in that it describes the motivations for studying biblical archaeology and the relationship between these motivations and various demographic variables and religious standpoints. Also investigated were the various types of career opportunities that biblical archaeology students were expecting to be prepared for.

¹⁰ Collis and Hussey, *Business Research*, 55.

¹¹ Buckingham and Saunders, *The Survey Methods Workbook*, 19.

Creswell's¹² sequence of stages for a quantitative study can thus be applied to this study as follows:

1 Expound a Theory

For this study the theory was that biblical archaeology students should expect that their studies will equip them for employment and that one of the vocations that they would be interested in is a career in tourism.

2 Develop Variables from the Theory

The demographic variables that were employed are age, gender, highest educational qualifications and highest current registration in biblical archaeology. In addition variables relating to religious affiliation and beliefs were used.

3 Formulate Hypotheses

Five hypotheses based on the above theory were proposed. The central hypothesis is as follows: *Career opportunities are a motivating factor for students choosing to study biblical archaeology at UNISA.*

H₀: Students who register for biblical archaeology modules at UNISA are not motivated by possible vocational opportunities.

The opposing hypothesis is as follows:

H₁: Students who register for biblical archaeology modules at UNISA are motivated by possible vocational opportunities.

Further secondary hypotheses were also tested. These are:

H₂₀: Tourism is not one of the vocational choices for biblical archaeology students at UNISA.

H₂₁: Tourism is one of the vocational choices for biblical archaeology students at UNISA.

H₃₀: Students feel that they have not been adequately prepared for career opportunities through their studies in biblical archaeology at UNISA.

H₃₁: Students feel that they have been adequately prepared for career opportunities through their studies in biblical archaeology at UNISA.

H₄₀: Biblical archaeology students at UNISA are not actively involved in organised religion.

H₄₁: Biblical archaeology students at UNISA are actively involved in organised religion.

¹² Creswell, *Research Design*, 125.

H₅₀: Biblical archaeology students at UNISA do not have a Christian background.

H₅₁: Biblical archaeology students at UNISA have a Christian background.

4 Concepts and Variables are Made Operational so that They can Be Measured

The emphasis in this survey was descriptive as well as analytical, as it not only investigated the motivations for studying biblical archaeology, but also the relationship between these motivations for studying biblical archaeology and various demographic variables and religious standpoints. In addition, it also investigated the types of career opportunities for which students of biblical archaeology are expecting to be prepared.

5 Instrument is Used to Measure Variables so that Hypothesis can be Tested

The instrument used to test these hypotheses was the self administered survey questionnaire in which students were asked to respond to 9 questions.

Dillman¹³ states that self-administered questionnaire surveys are now poised to benefit enormously from information-age technologies. He goes on to say that, although postal delivery and retrieval of surveys will remain important, electronic means of obtaining information are increasing rapidly. The questionnaire is a quantitative survey method based on positivist assumptions. According to Buckingham and Saunders,¹⁴ these assumptions are as follows:

- It is possible to discover facts about people's actions, attitudes and attributes by asking them questions and recording their answers systematically;
- The facts that we gather can be used to test our theories;
- Survey responses represent observations which can validly be measured and analysed using statistical procedures;
- Questionnaires are not inherently biased.

In order to answer the research question for this study, it was decided to conduct a self-administered questionnaire survey, using the web based QuestionPro¹⁵ vehicle. A closed-ended questionnaire was designed, as the

¹³ Don A. Dillman, *Mail and Internet Surveys: The Tailored Design Method* (New Jersey: John Wiley and Sons, 2007), 7.

¹⁴ Buckingham and Saunders, *The Survey Methods Workbook*, 35.

¹⁵ According to Statistics.com, "QuestionPro," n.p., 2008, [cited 7 February 2009]. Online: <http://www.statistics.com/resources/software/commercial/q/QuestionPro.php>. QuestionPro is designed as a self-service, web based survey tool which is distributed either via email or as part of an existing website. Survey hosting and data

researcher was looking for very specific answers to the questions being asked. Some of the questions, however, did contain space for the respondent to include additional information if necessary.

F RESEARCH RESULTS¹⁶

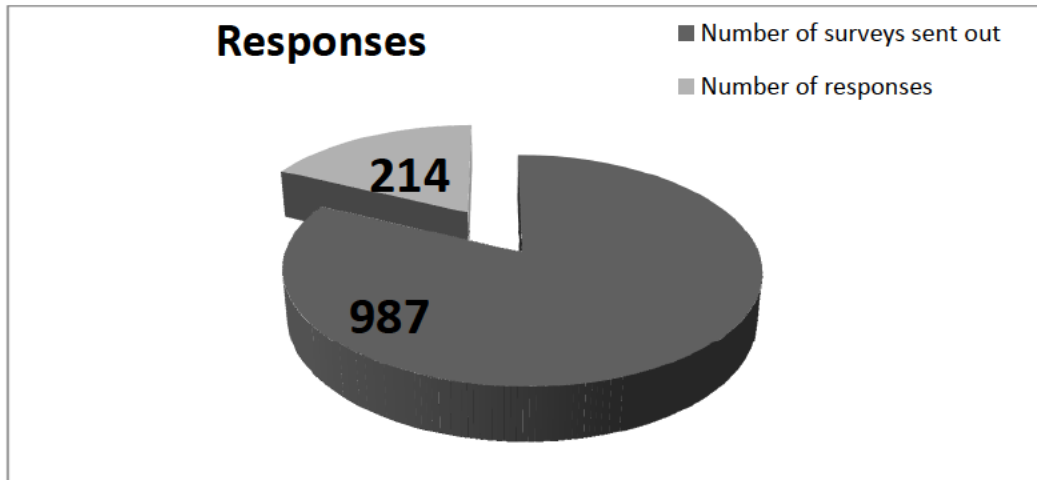


Figure 1: Response Rate

The total number of surveys thus sent out was 987 and the number of responses received was 214, resulting in a 22% response rate.

1 Demographic results

The results of the demographic variables investigated regarding biblical archaeology students are reported below and include age, gender, highest current educational level and current level of registration for biblical archaeology modules.

warehousing are handled automatically. Frequency tables, charts and percentage tabulations of the results are provided automatically in real-time. Survey data can also be downloaded and imported to common spreadsheet and analysis programs.

¹⁶ Jennifer J. Roberts, "Biblical Archaeo-Tourism: a New Vocational Opportunity for Biblical Archaeology Students" (unpublished Ph.D. diss., University of South Africa, 2011). All the following research results, tables and graphs are taken from the co-author's doctoral thesis.

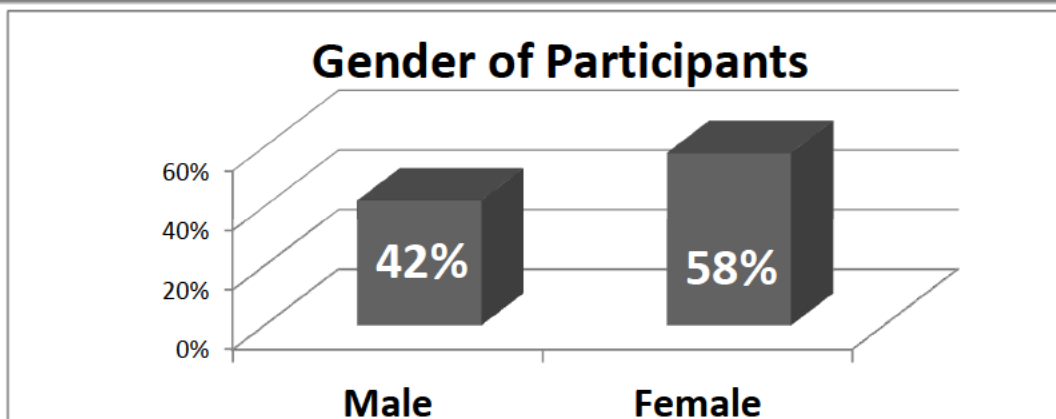


Figure 2: Gender of Participants

The results show that 58% of current students are female and 42% are male.

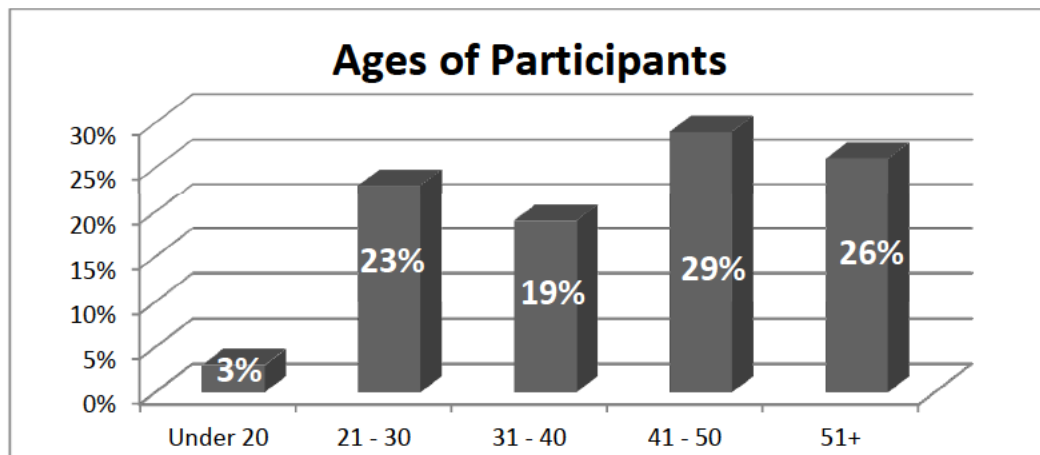


Figure 3: Ages of Participants

These results show that there is a fairly even spread of age groups, the largest being the 41 – 50 group at 29% of the total number of students. The smallest age group is the under 20 year-olds (3%). The data is spread over a large number of values. This result is important, in that it is an indication to the course leaders of the wide spread of their students' ages.

The next demographic variable investigated was the highest current level of education (Question 3). It can be seen that 29% of students already have a first degree or postgraduate qualification, even though the majority of students are registered for undergraduate biblical archaeology modules.

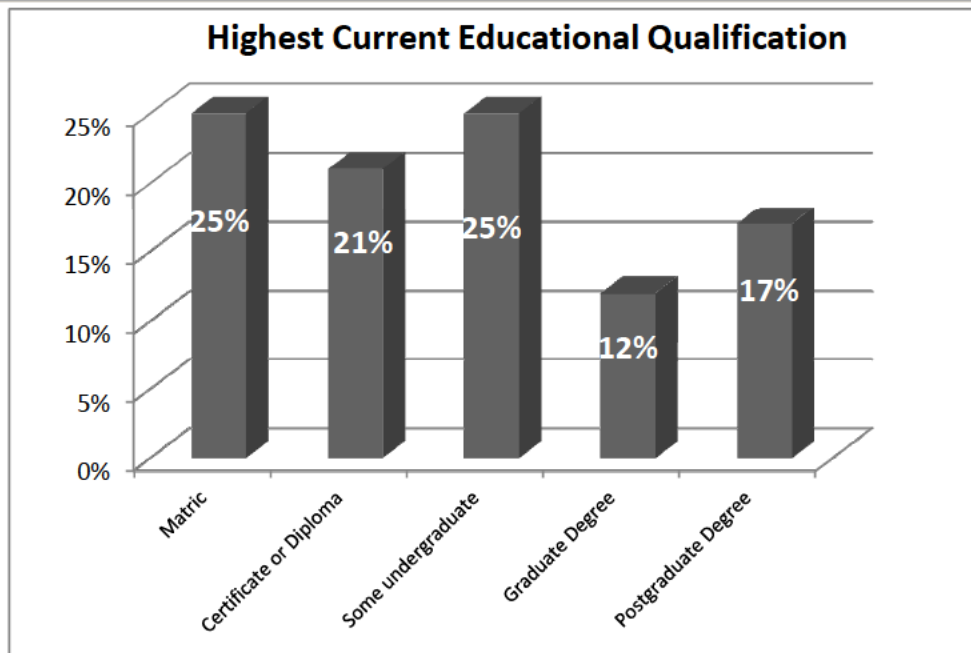


Figure 4: Highest Current Educational Qualification

The majority of the students either have only a Matric certificate (25%), or have passed some undergraduate courses (25%). 21% of the students have already obtained a certificate or diploma.

These results show that 29% of the current biblical archaeology students already have a first degree or a postgraduate qualification. This is interesting, as the following graph shows that only 11% of students are currently registered for postgraduate biblical archaeology courses. This indicates that there are many students studying undergraduate modules who already have a first degree or postgraduate qualification.

Once again, the data is spread over a wide range of values, indicating for the course leaders the variance in student educational levels.

The final question in the demographic results section of the survey investigates the highest level module, for which the students are currently registered.

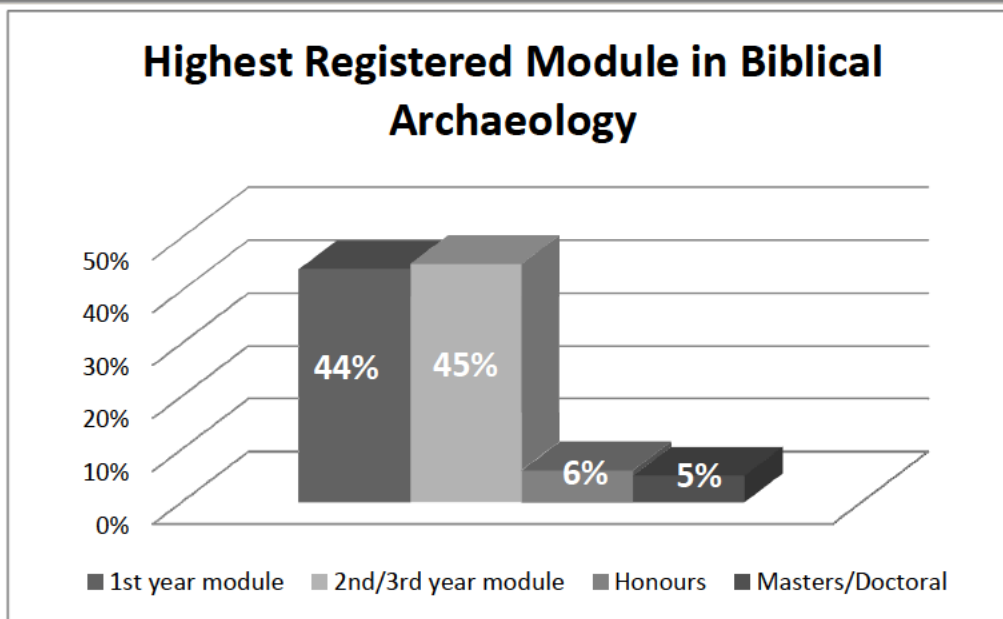


Figure 5: Highest Registered Module in Biblical Archaeology

The results shown in this graph indicate that 89% of students are registered for undergraduate modules, while 6% are Honours students and 5% are carrying out research at the Masters/Doctoral level. This is an interesting statistic when viewed in the context of the highest current level of education of these students. This indicates that 29% of students already have a first or a postgraduate degree, yet only 11% of students are currently registered at postgraduate level. This means that many of the students studying biblical archaeology are doing so either for interest only, or for other reasons such as looking for an alternative career option to the one for which they have already qualified.

2 Study Motivation Results

The primary research question for this study is whether biblical archaeology students at UNISA expect to harvest vocational opportunities as a result of their studies, and if so, is tourism one of these career choices. The participants were asked the following question in the survey:

Which of the following best describes your reason for studying biblical archaeology?

The available alternatives were as follows;

- Filler module(s)
- Interest only
- Career opportunities
- Spiritual growth
- Other (Please elaborate)

Respondents were able to select multiple answers to this question resulting in a sample size of 305.

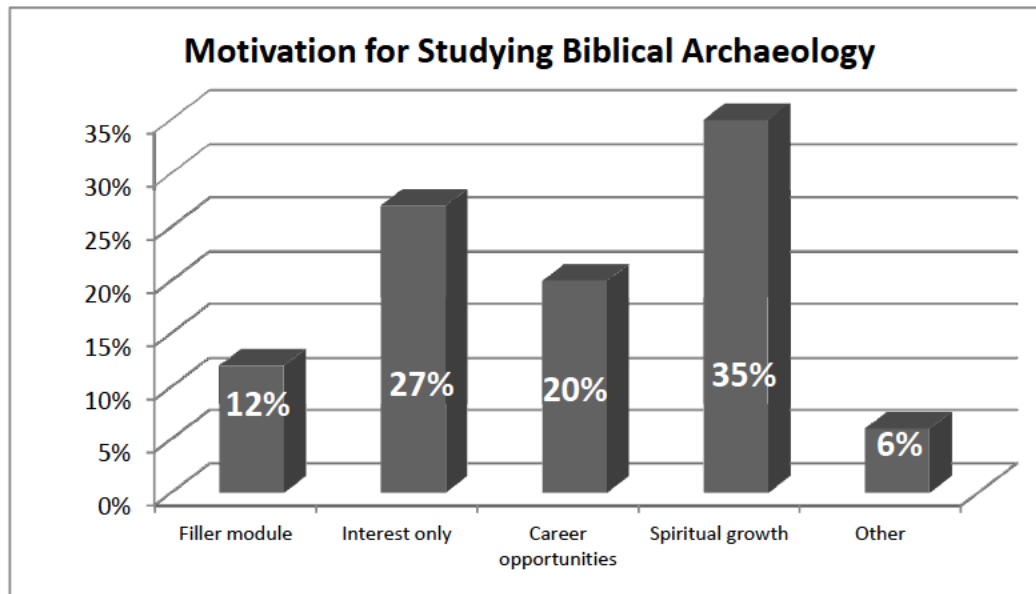


Figure 6: Motivation for Studying Biblical Archaeology

The results of this question show that 35% of students are motivated to study for reasons of spiritual growth, and 27% study these modules purely for interest. Career opportunities are the motivating factor for 20% of the students.

The figure of 20% of students studying biblical archaeology for the purpose of career opportunities is lower than those interested in spiritual growth and interest sake, but is none-the-less significant. Although only one student in five indicated that their motivation for registering for these courses is for vocational opportunities, it shows that cogniscence should be taken of this motivation.

In addition, it is possible that many potential biblical archaeology students do not register for these modules as they feel that the modules do not offer any career prospects. This opens many opportunities to market the biblical archaeology modules by placing particular emphasis on the career opportunities that are available.

Further investigation was carried out to determine if the motivating factors for studying biblical archaeology modules differed between undergraduate and postgraduate students. Figure 7 and Figure 8 present the motivating results of each of these groups.

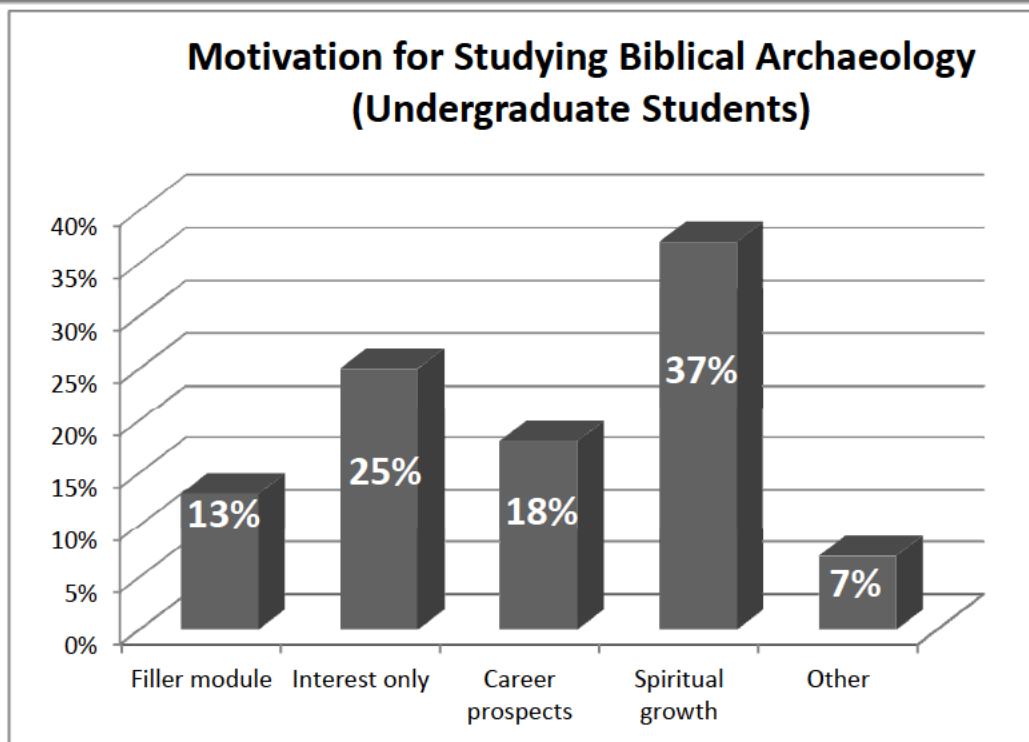


Figure 7: Motivation for Studying Biblical Archaeology (Under-Graduate Students)

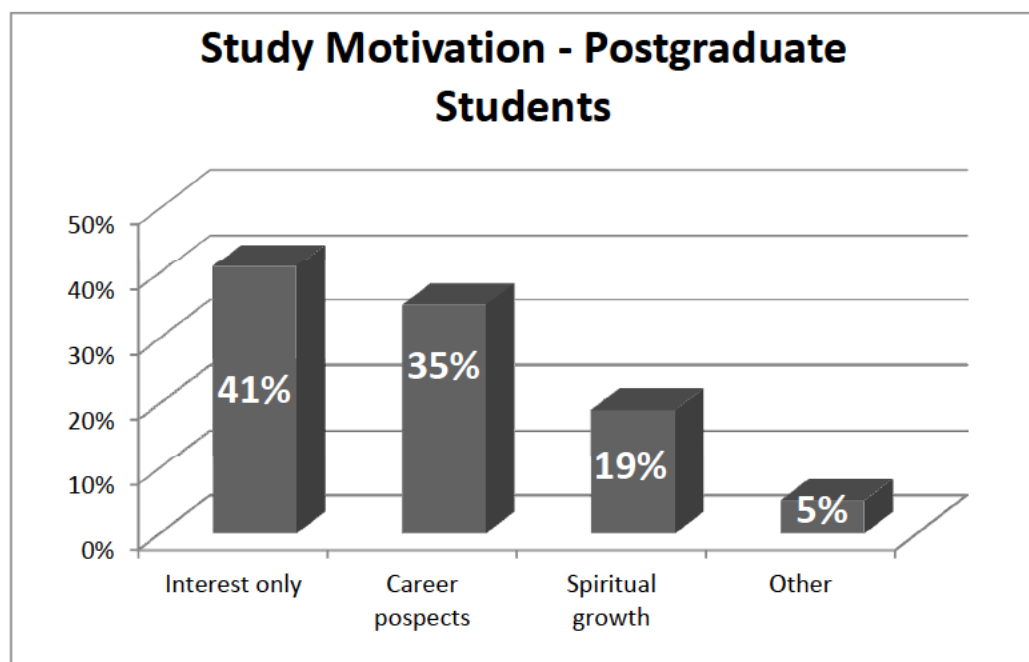


Figure 8: Motivation for Studying Biblical Archaeology (Post-Graduate Students)

The figure of 20% of students citing career options as their motivation for studying biblical archaeology changes when undergraduate only and postgraduate students are cross-tabulated as shown in Figures 9 and 10.

Here it can be seen that the number of undergraduate students looking for career prospects has dropped to 18% while the postgraduate students have much less motivation for spiritual reasons and far greater motivation for career prospects (35%). It is interesting to note that if the Honours students are excluded and only the motivation of Masters and Doctoral students is investigated, the percentage of students motivated by career opportunities increases from 35% to 40% and spiritual growth has decreased to 0% of the students (see figure 9 and figure 10 for a comparison of undergraduate versus postgraduate student motivation). The conclusion here is that postgraduate students are more inclined to career prospects as a motivation for studying than undergraduate students and that spiritual growth is a far greater motivation for studying biblical archaeology in undergraduate students.

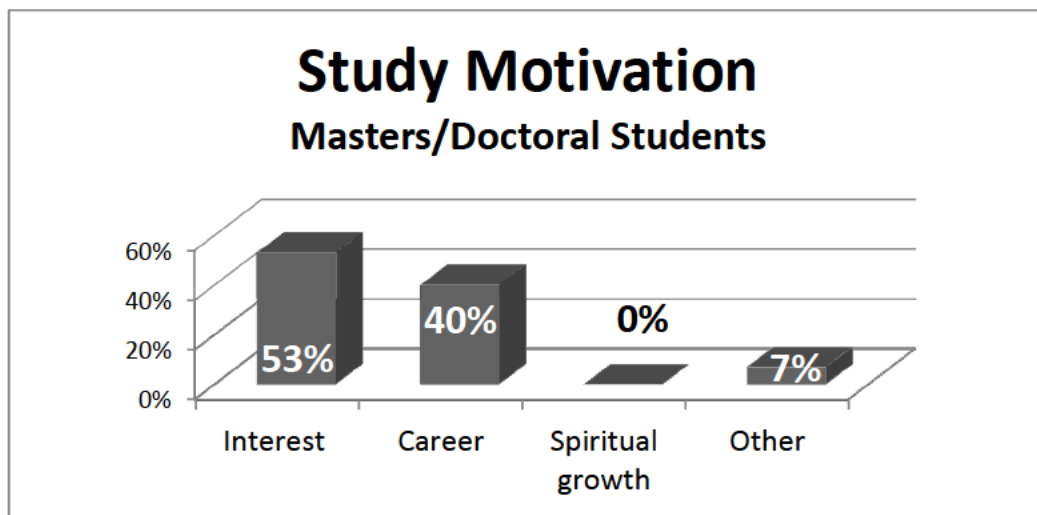


Figure 9: Study Motivation – Masters/Doctoral Students

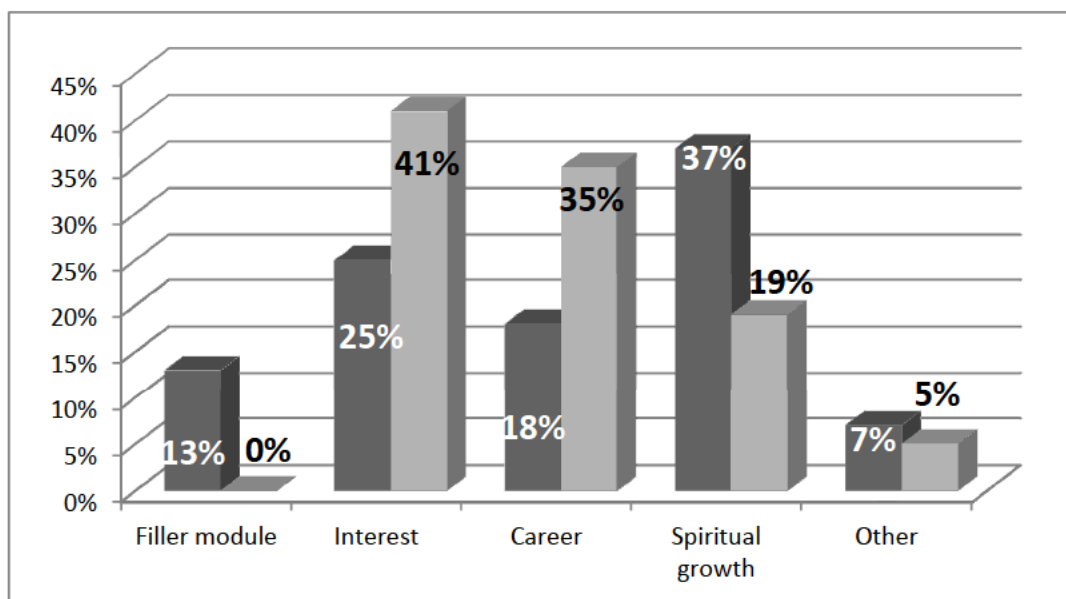


Figure 10: Undergraduate versus Postgraduate Student Motivation

Next we investigated which vocational options students would be interested in pursuing as a result of their studies in biblical archaeology and asked the following question:

Which of the following careers do you think you will be able to pursue once you have completed your studies? You may tick as many as you want.

The available answers are reproduced below.

- Pastoral work
- Work on archaeological sites
- Tour leader/guide
- Development of archaeological tours
- Museum work
- Teaching
- Other - please elaborate

The respondents were able to select as many options as they thought suitable, which resulted in a sample size of 483.

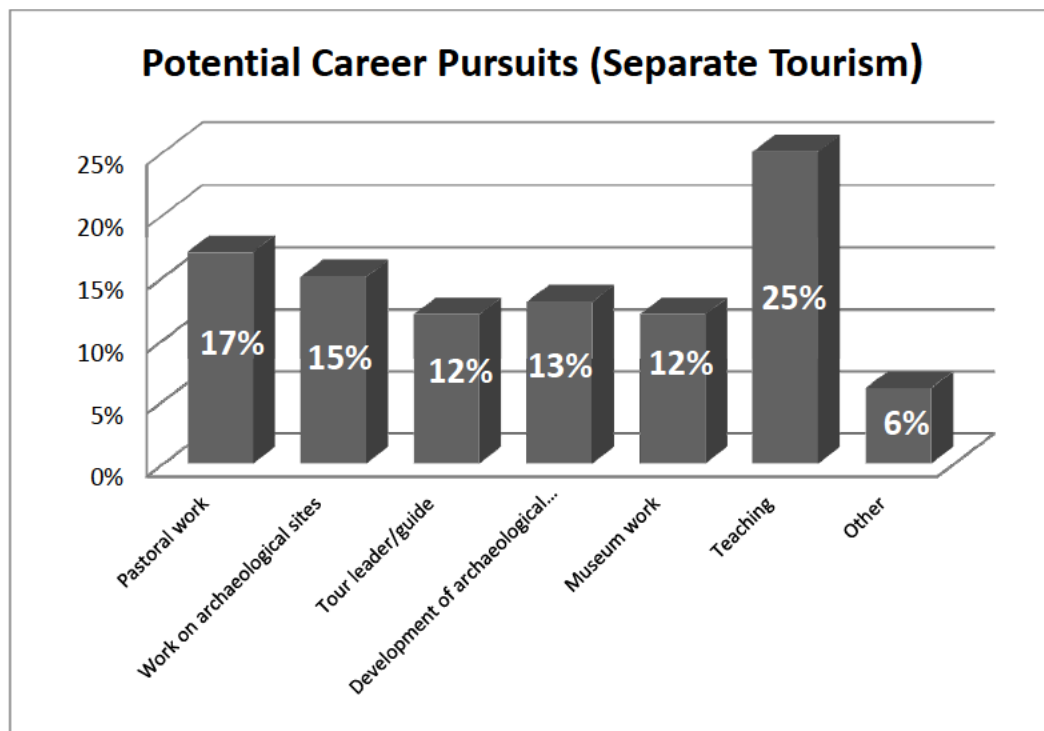


Figure 11: Potential Career Pursuits

The results show that the most popular career choice is teaching, which drew 25% of the responses. This was followed by pastoral work (17%), work on archaeological sites (15%), development of archaeological tours (13%) and tour guiding and museum work (12%) each.

Figure 11 shows the three areas of tourism-related careers (tour leader/guide, development of archaeological tours and museum work) as separate items, and is therefore not a true reflection of the field of tourism as a career choice. The following graph will show the same results but it combines the tourist-related options of tour leader and development of archaeological tours and in addition, it can be argued that the career choice of museum work could also partly fall under the scope of a tourism vocation, in that many museum visits form part of a tourist's itinerary. The effect of combining all three tourism related vocations is presented in the following slide.

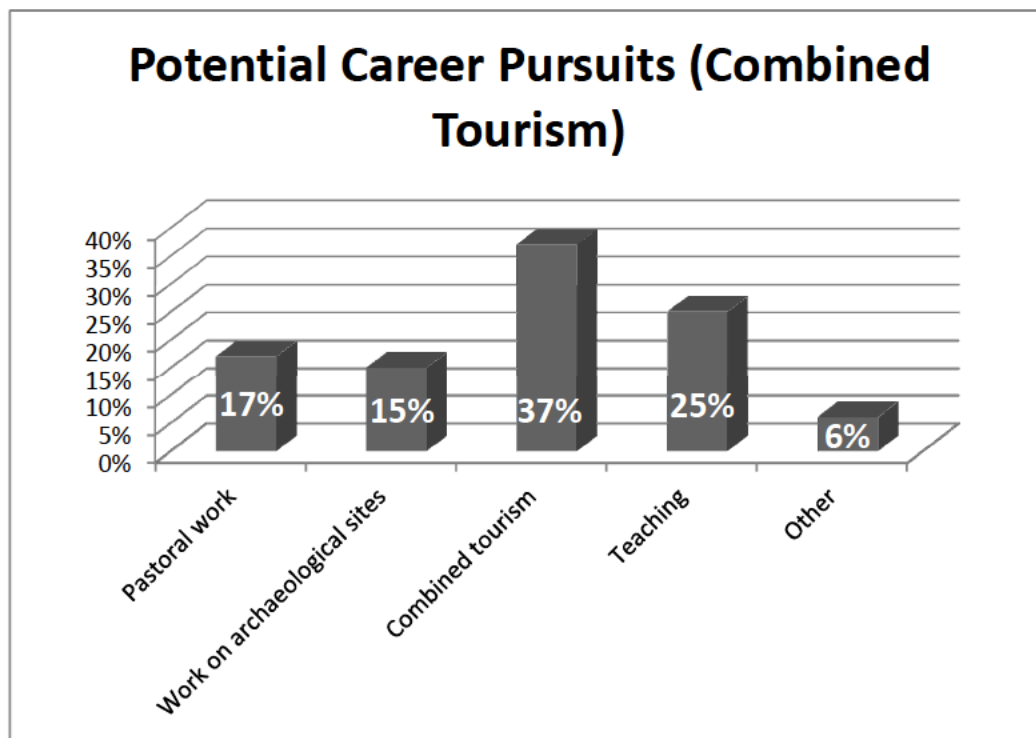


Figure 12: Potential Career Pursuits (Combined Tourism)

When combining the three career options of tour guiding, the development of archaeological tours and museum work into one area called combined tourism work, the results show an entirely different picture. It can now be seen that the most popular career choice is tourism which was selected by 37% of the respondents. Teaching is now the second most popular career choice with 25% of the responses.

Once again we investigated whether there was a difference between undergraduate and postgraduate students. Undergraduates still chose tourism as their career of choice although with a slightly lower percentage. The big difference comes in the postgraduate students where the percentage of students selecting tourism as the vocation of choice, rose from 35% to 47%. Interesting here to note is not only the jump in student numbers choosing tourism as a

career option, but that the corresponding interest in pastoral work for postgraduate students has dropped from 19% to 7%.

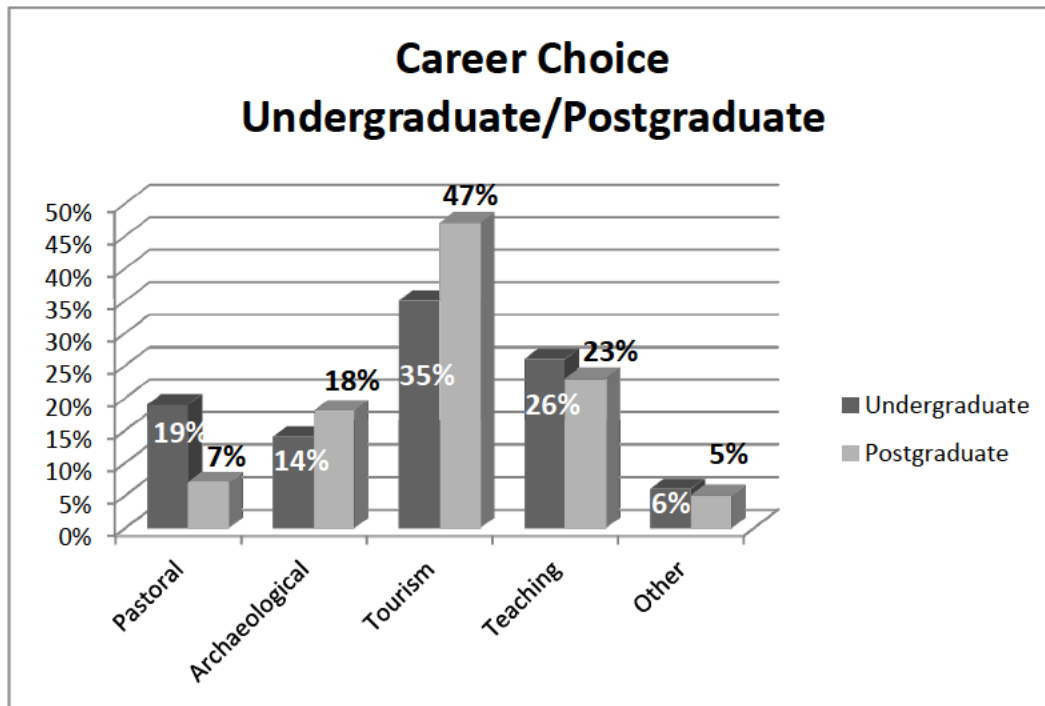


Figure 13: Career Choice – Undergraduate Versus Postgraduate Students

3 Vocational Preparation Results

The next question posed was:

Do you think that your studies in biblical archaeology have equipped you for a vocational opportunity?

The close-ended response options are printed below:

- Yes definitely
- To some extent
- Definitely not
- Maybe
- Not sure

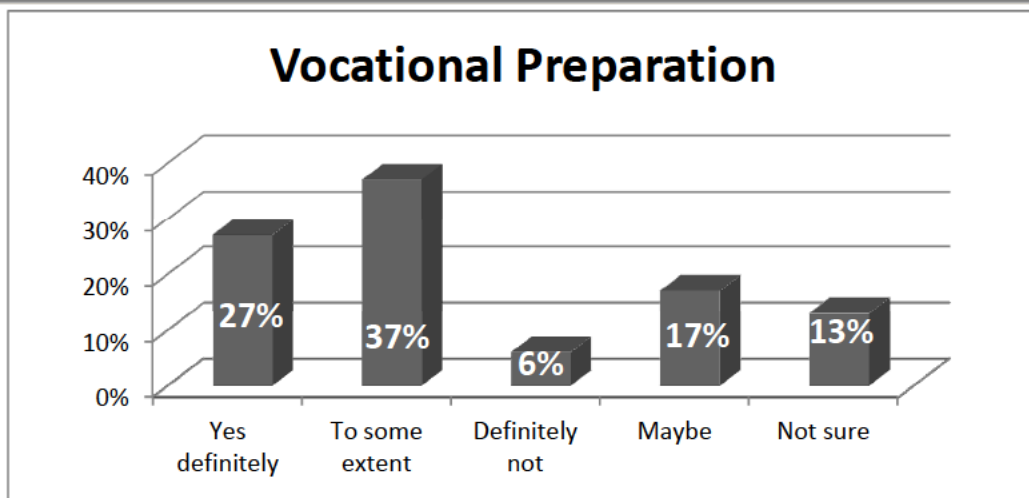


Figure 14: Vocational Preparation

The results show that only 27% of students say that their studies in biblical archaeology have definitely prepared them for a career opportunity, while a mere 6% say the opposite, that they have definitely not been adequately prepared. The majority of students (67%) feel that they have been only partially equipped for a vocation.

4 Religious Affiliation Results

In addition to the primary research questions and the demographic data that have already been reported on, students were asked to indicate their religious affiliation and their spiritual/religious beliefs.

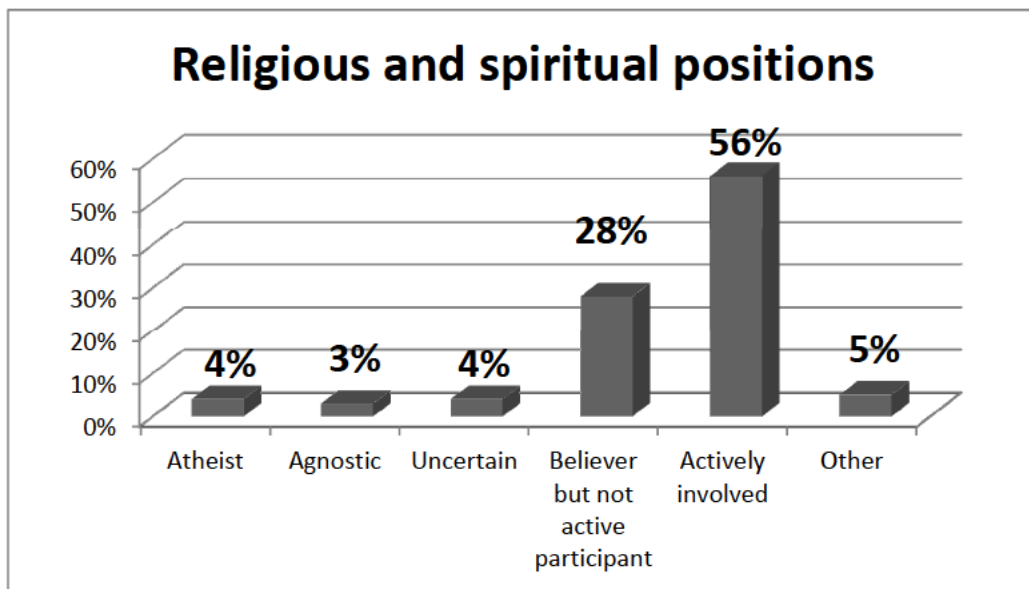


Figure 15: Religious and Spiritual Position

As can be seen, the majority of respondents (56%) are actively involved in organised religion, while 28% of students are believers, but not active

participants. 4% of students state that they are atheists and 3% indicate that they are agnostic. In total, 16% of respondents indicate that they are non-believers or uncertain of their beliefs.

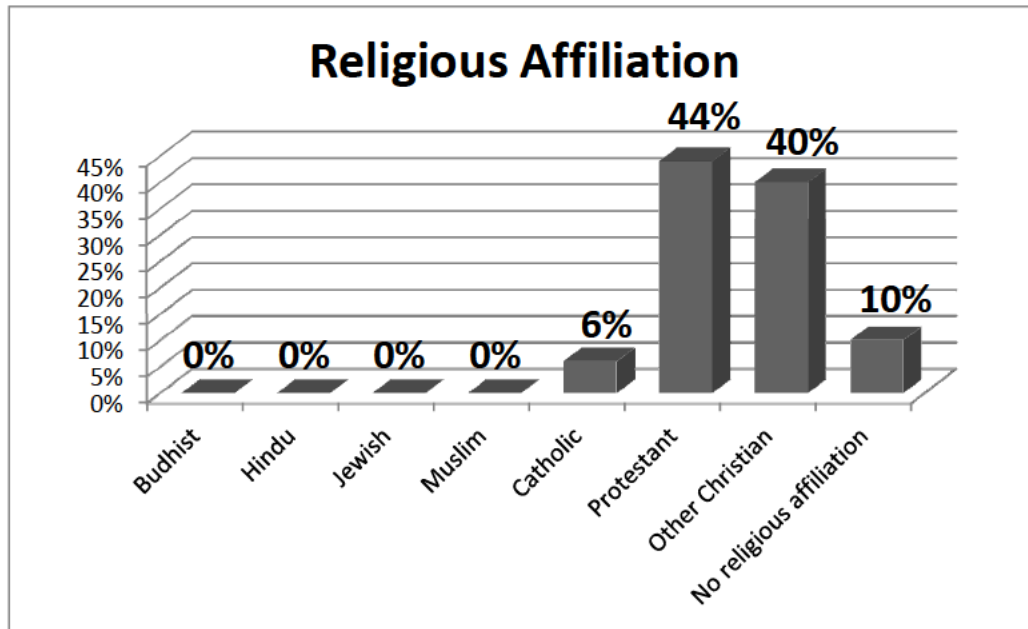


Figure 16: Religious Affiliation

From this graph it can be seen that 90% of registered students in 2009 have a Christian background with 6% of these students being Catholic. There were no Jewish, Muslim or Hindu students and only one Buddhist. Slightly more than 10% of students indicated that they have no religious affiliation at all.

The results from all the questions in the survey show hypothetically that a typical UNISA biblical archaeology student in 2009 would have appeared as follows:

- Female;
- Aged 41-50;
- A matriculant with a few undergraduate courses;
- Currently studying 2nd/3rd year modules;
- Actively involved in organised religion;
- A Christian;
- Studying mainly for spiritual growth;
- If interested in a career it would be tourism or teaching;
- Felt that their studies in biblical archaeology had prepared them only to some extent for a potential vocation.

5 Cross Tabulation Results

From the nine questions asked in the survey questionnaire, it is possible to create a great number of cross-tabulated results, many of which are very interesting but not always pertinent to the current study. The in-depth statistical analysis of all the results will be the focus of a further study as it falls outside the scope of this investigation. However, a few of the cross-tabulated results are significant and provide additional information relative to the purpose of this study and these are presented in the following tables.

Table 2 shows the summary results of chi-square statistics (and associated probabilities) for two way cross-tabulations of biographical attributes, religious affiliations and religious positions, with categorical variables of motivation, potential career opportunities and perceptions of being equipped for a career. Each row-by-column combination accommodated in the table represents a two way frequency table between the row and column of interest. Only the chi-square statistics and probability associated with the statistic are reported in the table. Statistical significance is indicated in each cell according to the significance legend.

	Career focused variables		
Biographical attributes	Motivation	Perception of vocational preparedness	Potential career opportunities
Gender	16.59 (0.002)**	20.47 (0.00) ***	46.88 (0.00)***
Age	42.86 (0.00)***	15.36 (0.50)	27.16 (0.30)
Qualifications	35.48 (0.003)**	18.53 (0.29)	14.04 (0.946)
Highest registered course	27.42 (0.007)**	8.27 (0.76)	35.81 (0.008)**
Religious positions	43.70 (0.002)**	23.56 (0.26)	59.64 (0.001)**
Religious affiliation	27.25 (0.51)	33.64 (0.213)	41.49 (0.49)
Significance legend	* :Significance on 5% level ** :Significance on 1% level *** :Significance on 0.1% level		

Table 2: Identification of Statistically Significant Relationships

From the above table it can be seen that there is a very significant correlation statistically between many of the variables, most notably being gender and career opportunity choice and perception of vocational preparedness and between age and motivation for studying biblical archaeology and these results are shown in tables 3, 4 and 5 below.

Cross-Tabulation Frequency/ %	Career Choice								
Gender		Pastoral work	Work on archaeological sites	Tour leader/Guide	Development of archaeological tours	Museum work	Teaching	Other	Row totals
	Male	53	22	14	15	11	50	12	177
		30%	12%	8%	8%	6%	28%	7%	37%
	Female	28	48	45	47	46	73	15	302
		9%	16%	15%	16%	15	24%	5%	63%
	Column Total	81	70	59	62	57	123	27	479
	Column Percent	17%	15%	12%	13%	12	25%	6%	100%
	Pearson's chi—square statistics								
Chi-square								46.88	
P value								0.000	

Table 3: Cross-Tabulation between Gender and Career Choice

Regarding the correlation between gender and career opportunities, the results presented indicate that male biblical archaeology students choose pastoral work as their preferred career option followed by teaching. The first choice career option for female students, on the other hand, is tourism, with pastoral work featuring low on their career choices.

Cross-Tabulation Frequency/ Percent	Motivation for Studying Biblical Archaeology						
Gender		Filler module	Interest only	Career opportunities	Spiritual growth	Other	Row totals
	Male	6	28	28	55	7	124
		5%	23%	23%	44%	6%	41%
	Female	29	55	33	50	13	180
		16%	31%	18%	28%	7%	59%
	Column Total	35	83	61	105	20	304
	Column Percent	12%	27%	20%	35%	7%	100%
	Pearson's chi-square statistics						
Chi-square			16.59				
P value			0.002				

Table 4: Cross-Tabulation between Gender and Motivation for Studying Biblical Archaeology

The results from Table 4 indicate that the main motivation for studying biblical archaeology by both male and female students is for spiritual growth. However, the percentage of men studying for spiritual growth is far higher (44%) than women (28%). There are significantly more female students (16%) than male students (5%) who are using biblical archaeology as a filler module. A career opportunity as a motivation for studying biblical archaeology is fairly consistent between males (23%) and females (18%).

Cross-Tabulation Frequency/Percent	Vocational Preparedness						
		Yes definitely	To some extent	Definitely not	Maybe	Not sure	Row totals
Gender	Male	37	27	7	8	10	89
		42%	30%	8%	9%	11%	42%
	Female	20	51	6	27	18	122
		16%	42%	5%	22%	15%	58%
	Column Total	57	78	13	35	28	211
	Column Percent	27%	37%	6%	17%	13%	100%
	Pearson's chi-square statistics						
	Chi-square			20.47			
	P value			0.000			

Table 5: Cross-Tabulation between Gender and Vocational Preparedness

From Table 5 it can be seen that male students were also more inclined to state that their studies in biblical archaeology have definitely prepared them for a vocational opportunity (42%) while only 16% of female students indicated that they were definitely equipped for a career.

The next significant correlation that is pertinent to this study is between the variables "motivation for studying biblical archaeology" and "age." This following graph depicts only the age grouping statistics for those students who are motivated to study biblical archaeology for vocational opportunities.

Cross-Tabulation Frequency/ Percent	Age							
		<20	21-30	31-40	41-50	51+	Row totals	
Motivation	Filler module	4	14	7	4	6	35	
		11%	40%	20%	11%	17%	11%	
	Interest only	3	15	15	28	22	83	
		4%	18%	18%	34%	27%	27%	
	Career opportunities	1	12	14	28	6	61	
		2%	20%	23%	46%	10%	20%	
	Spiritual growth	1	17	24	33	31	106	
		1%	16%	23%	31%	29%	35%	
	Other	0	6	3	2	9	20	
		0%	30%	15%	10%	45%	7%	
	Column Total	9	64	63	95	74	305	
	Column %	3%	21%	21%	31%	24%	100%	
	Pearson's chi-square statistics							
	Chi-square				42.86			
	P value				0.000			

Table 6: Cross-Tabulation between Motivation and Age

The results from Table 6 are represented graphically in Figure 17 and indicate that the majority of students seeking career opportunities that could arise from their studies in biblical archaeology are aged between 41 and 50. On the surface, this statistic would seem questionable that people over the age of 40 are looking for new careers. However, the researcher found that there are literally thousands of websites devoted to the topic of career change after age 40, when typing "new careers after age 40" into the internet search engine "Google."

During research for their forthcoming book, *Changing careers after 40: real stories, new callings*, Pile and Lingle¹⁷ state that changing careers after age 40 is a growing phenomenon and that most workers will have an average of three to seven careers in their lifetime.

¹⁷ Terry Pile and David Lingle, "Changing Careers after 40: Real Stories, New Callings," n.p. [cited 10 October 2010]. Online: http://associationdatabase.com/aws/NCDA/pt/sd/news_article/30227/PARENT/layout_details/true.

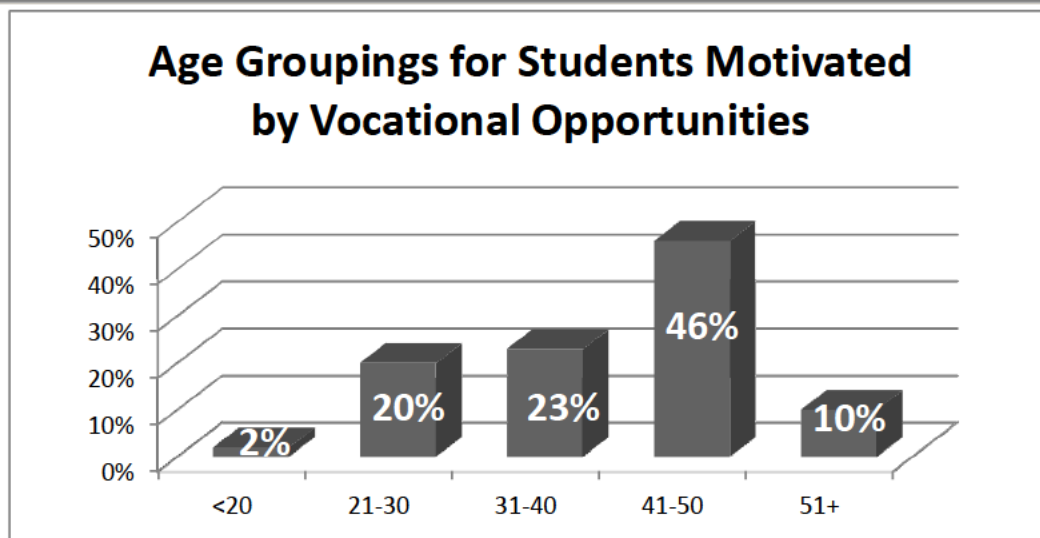


Figure 17: Age Groupings for Students Motivated by Vocational Opportunities

It is not within the scope of this paper to statistically analyse all the significant correlations between the various variables. The full statistical analysis and discussions of the results will be the subject of a further study. The above cross-tabulations were presented as they showed a highly significant correlation between the variables.

Additional cross-tabulations are presented in Table 7 which have significance to the aim of this study on student motivation for studying biblical archaeology.

Career Choice and Highest Qualification variables			
	Career choice	Qualifications	Highest current
Motivation	54.85 (0.00)***	35.48 (0.003)**	27.42 (0.007)**
Highest current	35.75 (0.008)**	73.325 (0.00)**	
Religious position	59.64 (0.001)**	23.52 (0.26)	23.52 (0.264)
Significance legend: * :significance on 5% level ** :significance on 1% level *** :significance on 0.1% level			

Table 7: Identification of Additional Statistically Significant Relationships

The next highly significant correlation is between the variables “motivation for studying biblical archaeology” and “career choice.” For the purposes of this study, only the cross-tabulation between the row “career opportunities” as a motivation for studying biblical archaeology, and the vocational choice of “combined tourism,” will be discussed.

Cross-Tabulation Frequency % / Percent		Career choice					
Motivation		Pastoral Work	Work on archaeological sites	Combined Tourism	Teaching	Other - Please elaborate	Row Totals
	Filler module	8 11%	9 12%	30 41%	22 30%	4 5%	73 10%
Interest only	19 9%	42 20%	95 44%	49 23%	9 4%	214 9%	
Career Opportunities	22 13%	30 17%	75 43%	37 22%	8 5%	172 23%	
Spiritual Growth	61 26%	26 11%	72 31%	62 27%	10 4%	231 31%	
Other	3 6%	7 14%	22 43%	13 25%	6 12%	51 7%	
Column Total		113	114	294	183	37	741
Column %		15%	15%	40%	25%	5%	100%
Pearson's chi-square statistics							
Chi-square	54.85						
p value	0.000						

Table 8: Career Choices for Students Motivated by Vocational Opportunities

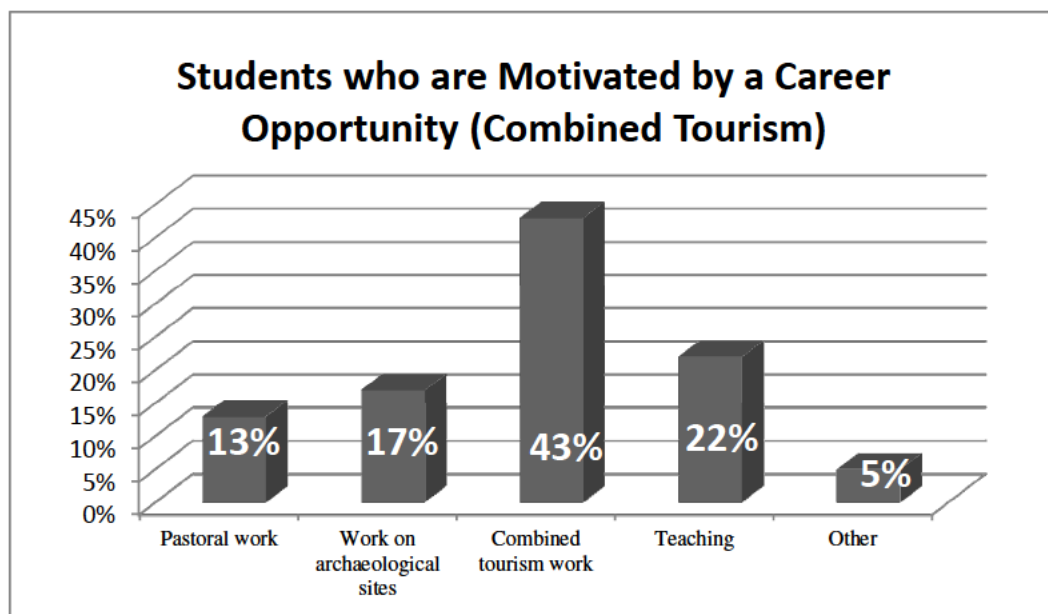


Figure 18: Career Choices for Students Motivated by Vocational Opportunities

The above graph shows the vocational choices of only those students who have indicated that their motivation for studying biblical archaeology is to be prepared for a career. In this case, tourism accounts for just over 43%, and is the most common vocation of choice. It is followed by teaching, with just over 20%. These figures are significant in that they focus solely on students wanting a career, whereas the figures for all students show that tourism accounts for 37% and teaching accounts for 25%.

Cross-Tabulation Frequency %	Highest Level of Registration					
		1 st year	2/3 rd	Honours	M and D	Row total
Motivation	Filler module	18	17	0	0	35
		51%	49%	0%	0%	12%
	Interest only	23	45	7	8	83
		28%	54%	8%	10%	27%
	Career opportunities	28	20	7	6	61
		46%	33%	11%	10%	20%
	Spiritual growth	50	48	7	0	105
		48%	46%	7%	0%	35%
	Other	9	9	1	1	20
		45%	45%	5%	5%	7%
Column total	128	139	22	15	304	
Column %	42%	46%	7%	5%	100%	
Pearson's chi-square statistics						
Chi-square				27.42		
P value				0.007		

Table 9: Cross-Tabulation between Motivation and Highest Current Registration

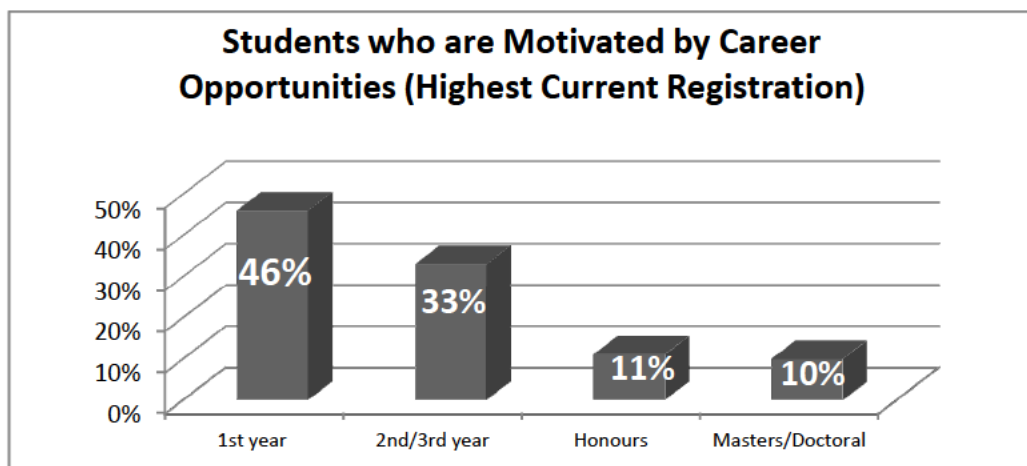


Figure 19: Highest Current Registrations for Students Motivated by Vocational Opportunities

The figure above shows that of all the students who indicated that they were seeking career opportunities, 21% were postgraduate students. The corresponding figure for all biblical archaeology students is 11%. This indicates that postgraduate students are more inclined towards career opportunities. Another interesting statistic is that the highest percentage of students seeking career opportunities were registered for 1st year modules (46%) and that this percentage dropped substantially to only 33% for 2nd/3rd year students.

Cross-Tabulation Frequency /Percent	Career Choice						
		Pastoral work	Work on archaeological sites	Combined tourism	Teaching	Other - Please elaborate	Row Totals
Highest Current Level of Registration	1st year module(s)	42	17	47	49	15	170
		25%	10%	28%	28%	8%	35%
	2nd/3rd year module(s)	34	41	98	57	8	238
		14%	17%	41%	24%	3%	49%
	Postgraduate	4	7	18	10	3	42
		10%	17%	43%	24%	7%	9%
	Masters/Doctoral	1	6	17	7	1	32
		3%	19%	53%	22%	3%	7%
	Column Total	81	71	180	123	27	482
	Column %	17%	15%	37%	26%	6%	100%
Pearson's Chi-Square Statistics							
Chi-Square		35.75					
p Value		0.008					

Table 10: Cross-Tabulation between Career Choice and Highest Current Registration

The following graph (Figure 20) depicts the changes in percentage of students at each level of study who have chosen tourism as their career option.

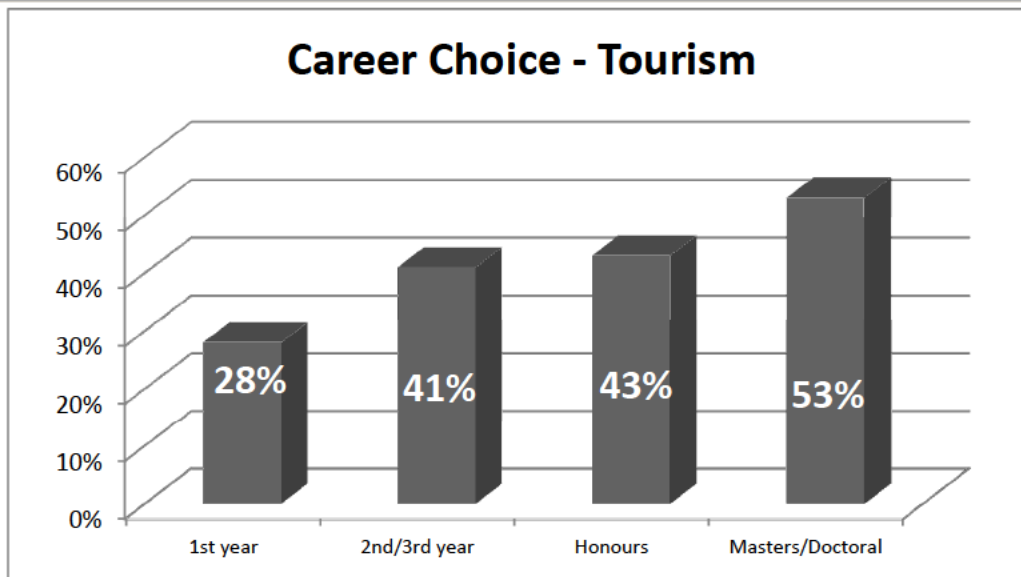


Figure 20: Career Choice – % of Year Group who Chose Tourism

From this graph it can be seen that 28% of students registered for 1st year modules choose tourism as a career option. This figure increases to 41% for 2^{nd/3rd} year module students and 43% for Honours students, peaking at 53% for Masters and Doctoral students. The conclusion is that the higher the level of registration, the more inclined students are towards a career in tourism. This is significant in indicating that there could be a need for modules in tourism at the post-graduate level.

Although it is not pertinent to the exact focus of this study, the following graph shows an interesting statistic on students' choice of pastoral work as a career option.

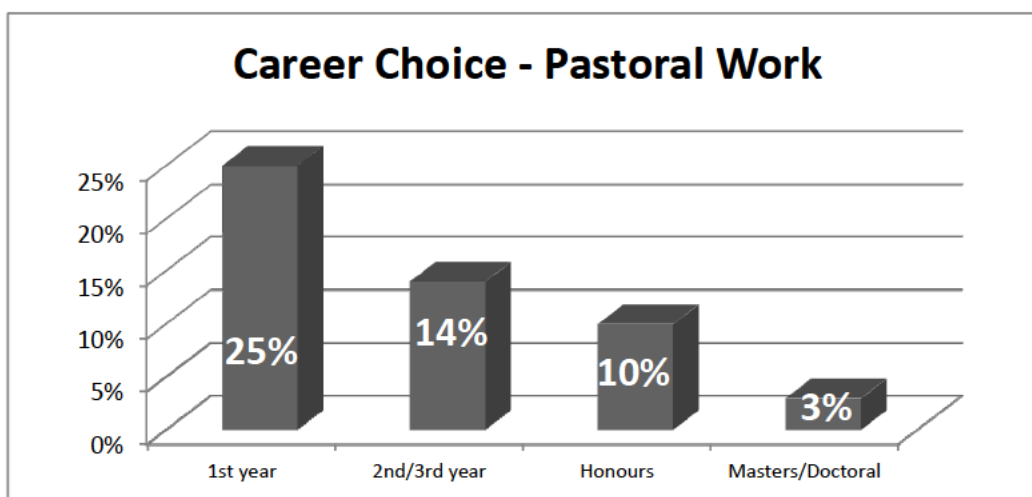


Figure 21: Career Choice – % of Year Group who Chose Pastoral Work

This graph indicates that just over 25% of 1st year module students would choose pastoral work as a career. This figure declines steadily with each

successive year of study and drops to only 3% of the Masters/Doctoral students wanting to pursue a career in the ministry. The reason for this could be that many of the 1st year biblical archaeology students are registered for the B.Th. degree and are studying biblical archaeology as a filler module. This also ties in with the results obtained from the question on the religious position of students which indicated that religious/spiritual position of Masters/Doctoral students was significantly lower than for other registrations. This is depicted in the table 11 below.

Cross-tabulation Frequency/ Percent	Religious Position							
		Atheist	Agnostic	Uncertain	Believer but not active participant	Actively involved in organized religion	Other	Row Totals
Highest Current Level of Registration	1st year	2	2	2	26	56	7	95
		2%	2%	2%	28%	59%	7%	45 %
	2nd/3rd year	4	4	2	28	54	4	96
		4 %	4%	4%	29%	56%	4%	45%
	Honours	0	0	0	3	8	1	12
		0%	0%	0%	25%	67%	8%	6%
Masters /Doctoral	3	0	3	3	1	0	10	
	30%	0%	30%	30%	10%	0%	5%	
Column Total	9	6	7	60	119	12	213	
Column Percent	4%	3%	3%	28%	56%	6%	100%	
Pearson's Chi-Square Statistics								
Chi-Square				47.470				
p Value				0.000				

Table 11: Cross-Tabulation between Religious Positions and Level of Registration

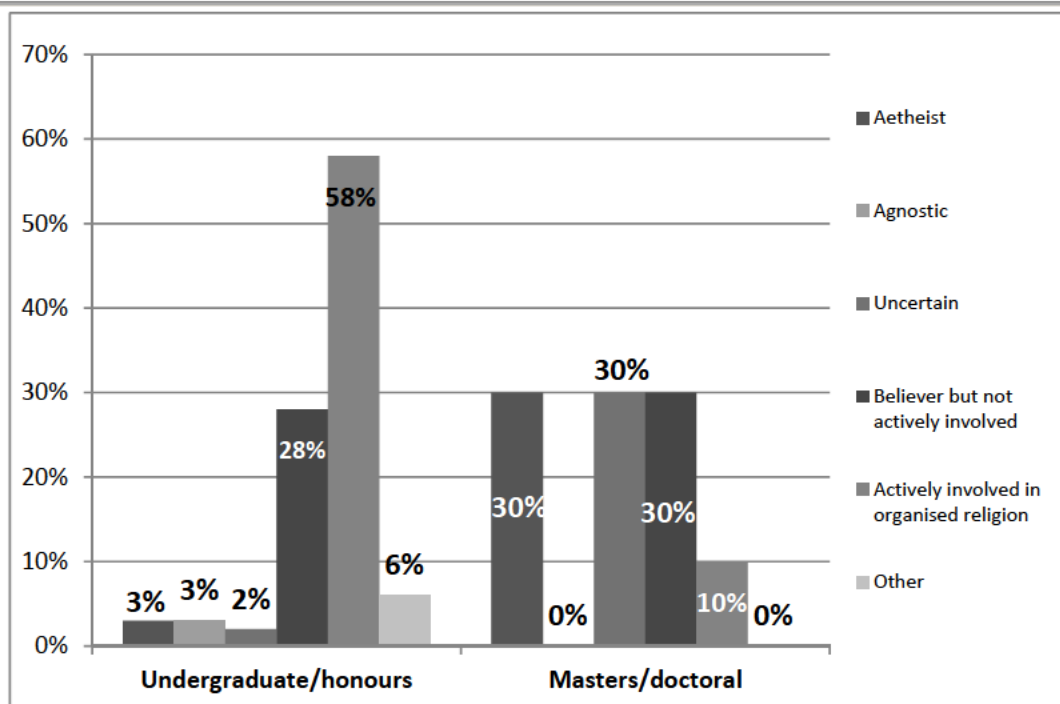


Figure 22: Religious Position of Undergraduate/Honours Students versus Masters/Doctoral Students

The above graph presents the religious position of undergraduate and honours students versus that of Masters and Doctoral students. An interesting finding here is that only one (10%) of the ten Masters/Doctoral students is actively involved in organised religion, 60% of them are either atheist or uncertain about their religious position and 30% are believers but not actively involved. A different picture emerges for the undergraduate and Honours students. 58% are actively involved in organised religion while only 8% are either atheist, agnostic or uncertain. These findings could have implications for the discussion regarding Syro-Palestinian and biblical archaeology.

6 Conclusion of Research Results

The research question posed for this article was: *Do students who study biblical archaeology at Unisa expect to harvest any vocational opportunities through their studies, and if so, is the field of tourism one of their expected vocations?*

In addition, five different hypotheses were proposed. The following conclusions can be reached from the results presented above:

H₀: Students who register for biblical archaeology modules at UNISA are not motivated by possible vocational opportunities.

Result: Vocational opportunities are the motivating factor for 20% of students studying biblical archaeology. Thus the null hypothesis can be rejected, as a

significant number of students indicated that career opportunities are a motivating factor for choosing to study biblical archaeology.

H₂₀: Tourism is not one of the vocational choices for biblical archaeology students at UNISA.

Result: 37% of all students indicated that tourism is their vocation of choice. This is once again a significant result so the hypothesis is thus rejected.

H₃₀: Students feel that they have not been adequately prepared for career opportunities through their studies in biblical archaeology at UNISA.

Result: 27% of students stated that the current courses have definitely prepared them for a vocation and 6% indicated that they had definitely not been adequately prepared. The majority of students (67%) feel that they had been only partially prepared. The hypothesis is thus rejected, although the conclusion is that students are generally not fully prepared for a career opportunity.

H₄₀: Biblical archaeology students at UNISA are not actively involved in organised religion.

Result: 56% of students indicated that they were actively involved in organised religion. Due to the substantial evidence provided by the statistics, the hypothesis is thus rejected.

H₅₀: Biblical archaeology students at UNISA are not affiliated to a Christian background.

Result: An overwhelming majority of 90% of current biblical archaeology students at UNISA have a Christian background. This hypothesis is therefore rejected.

The answer to the research question posed at the beginning of the chapter asking whether students expected to harvest a vocational opportunity from their studies can thus be answered as follows: 20% of students expect to be prepared for a career opportunity and of these students who are motivated by a vocational opportunity, just over 37% indicated that their vocation of choice would be in the field of tourism.

G CONCLUSIONS – STUDENT MOTIVATION FOR STUDYING BIBLICAL ARCHAEOLOGY

The research from this study shows that 20% of all students registered for biblical archaeology modules at UNISA during 2009 were motivated by career opportunities in this field. For those students who indicated that their main study motivation was to be prepared for a vocational opportunity, just over 37% cited tourism as their career of choice.

The largest percentage of students seeking career opportunities in the field of tourism (53%) comes from Masters and Doctoral biblical archaeology

students, with 43% of Honours students choosing tourism. Conversely, only 3% of Masters and Doctoral students are motivated by a career in pastoral work, while 25% of first-year biblical archaeology students begin their studies with a ministerial career in mind.

When it comes to the question of whether students feel that they are being adequately prepared for a vocational opportunity through their studies in biblical archaeology, the majority of students (67%) feel that they are being only partly prepared. 27% of students stated that their studies have definitely prepared them for a career and only 6% say definitely not.

An overwhelming percentage of current students (90%) state that their religious background is Christian, while 10% have no religious affiliation. During 2009 only 6% of registered biblical archaeology students were Catholic and there were no Jewish, Muslim, Hindu or students from other religions, other than one Buddhist student.

The research also indicated that only 10% of students studying biblical archaeology at postgraduate level are actively involved in organised religion, while this figure rises to 58% of those students registered for undergraduate modules. This result is significant in that it has implications for where the subject of biblical archaeology should be housed at the university. One possible suggestion is that undergraduate modules could be offered by the Department of Old Testament and Ancient Near Eastern Studies and that postgraduate studies are housed in the archaeology or history departments.

The different debates regarding the academic discipline of biblical archaeology play a role here too. During the period between the First and Second World Wars, William Albright¹⁸ championed the case for biblical archaeology from a religious/devotional standpoint where the main purpose of biblical archaeology was to provide historical proof of the Bible narratives. During the 1970s, William Dever¹⁹ proposed that the term "biblical archaeology" be changed to "Syro-Palestinian Archaeology" to denote a more secular field of study based on historical/scientific premises.

It is interesting to note that the modules offered at UNISA are all called "biblical archaeology" modules and fall under the Department of Old Testament and Ancient Near Eastern Studies. These courses are however secular and historical based archaeology modules and thus anomalous with the

¹⁸ Thomas E. Levy. "The New Pragmatism: Integrating Anthropological, Digital, and Historical Biblical Archaeologies," in *Historical Biblical Archaeology and the Future: the New Pragmatism* (ed. Thomas E. Levy; London: Equinox, 2010), 4.

¹⁹ William G. Dever. *What did the Biblical Writers Know & When did They Know It?* (Michigan: Wm. B. Eerdmans publishing Co., 2001), 60.

name "biblical archaeology" and the academic department in which they are housed.

Although the doctrinal position of biblical archaeology at UNISA is historical rather than religious based, the name biblical archaeology implies a Christian/religious perspective which could discourage non Christian students from studying these courses.

This paper asked specific questions in a disciplined manner regarding why students study biblical archaeology, and analysed the responses with scientific rigour. From these results it can be concluded that many biblical archaeology students would like to follow a career in the tourism field and that the course content for biblical archaeology could be realigned with tourism in order to better prepare students for this vocation.

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