

# Factors Influencing Choice of a Subject Specialisation by Prospective Teachers at Teacher Training College in Eswatini

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## ABSTRACT

*There is no college decision that is more thought provoking and guts wrenching than the choice of a major. However, the factors influencing prospective student teachers at teacher training institutions in Eswatini are yet to be known. Thus, the study sought to determine factors influencing the choice of a subject specialisation by prospective Primary Teachers' Diploma teachers in Eswatini. The study employed a pragmatism paradigm using convergent or triangulation mixed method design. This study involved 16 experts from three teacher-training institutions and a census of 351 prospective teachers who were eventually admitted to these teacher-training institutions for PTD in Eswatini. Data collection involved a triangulation of modified Delphi technique and survey questionnaire. The qualitative data were analysed using thematic analysis while the quantitative data were analysed using descriptive statistics. Findings revealed that student interest, attitude and impression, related exposure, and the nature of subject specialisation were the factors influencing prospective students' choice of a specialisation at the teacher training institutions. Therefore, the study recommended that tertiary institutions or institutions of higher education should organise student expo which will expose them to different careers and areas of specialisation in each career.*

**Keywords:** *pre-college, prospective student teacher, subject specialisation and teacher-training institutions*

## INTRODUCTION

When choosing a subject specialisation or college major, it is imperative to carefully consider several factors. The choice of a college major is one of the most important decisions to be made by a prospective college student (Begg, Bentham & Tyler, 2008; Borchert 2002). Such decision is so serious that it has lifetime implications and consequences (Borchert, 2002). According to St. John (2000), *“There is, perhaps, no college decision that is more thought-provoking, gut wrenching and rest-of-your life oriented--or disoriented--than the choice of a major”* (p.22). The challenges faced by student teachers in choosing a subject specialisation manifest themselves when students request to change a subject specialisation already chosen (Garton & Carmell, 1999).

In Eswatini, a subject specialisation at the teacher training college is an option with a group of subjects, which PTD students could take. The curriculum offered for a subject specialisation at the teacher training institutions is likely to influence the choice of a subject specialisation. A subject specialisation may be chosen because it offers skills that make the prospective teachers to be globally competitive. Eswatini colleges offering PTD are Ngwane Teacher Training College, William Pitcher Teacher Training College and Nazarene Teacher Training College (now known as Southern Africa Nazarene University). Prospective student teachers are expected to indicate their intended subject specialisation when applying for admission among four options: Applied Sciences, Languages, Pure Sciences and Social Studies.

In Eswatini, several studies on subject specialisation and factors affecting the choice of a specialisation have been conducted at high school, college and university level (Dlamini, 2005; Dube & Habedi, 1989; Hadebe, 2010; Tsikati, 2014; Xaba, 2003). Dlamini (1993) conducted a similar investigation to these studies on the predictors of college students' reasons for pursuing a programme of study and enrolling in tertiary institutions in Swaziland. Tsikati (2018) reported another similar study on factors influencing the choice of subject specialisation by students at the teacher training institutions in Eswatini. However, it is evident that factors influencing the choice of a subject specialisation by prospective student teachers are yet to be known. Thus, this study sought to determine factors

influencing the choice of a subject specialisation by prospective Primary Teachers' Diploma teachers in Eswatini.

## **PURPOSE AND OBJECTIVES OF THE STUDY**

The purpose of the study was to determine factors influencing the choice of a subject specialisation by prospective Primary Teachers' Diploma teachers in Eswatini. The objectives of the study were to:

1. Describe prospective teachers applying for a Primary Teachers' Diploma by intended subject specialisation at teacher training institution in Eswatini.
2. Identify factors influencing the choice of a subject specialisation by prospective teachers applying for a Primary Teachers' Diploma at teacher training institution in Eswatini.
3. Describe prospective teachers applying for a Primary Teacher Diploma at teacher training institution in Eswatini by their background and demographic characteristics.
4. Compare the respondents' choices of subject specialisation by selected background information and demographic variables.

## **LITERATURE REVIEW**

Existing literature indicated that the choice of a subject specialisation or college major by student teachers rest upon the following factors: curriculum (subject combination) offered for a subject specialisation (Dube & Habedi, 1989), job consideration (Wildman & Torres, 2001), student's interest (Cannon & Broyles, 2006), prior student exposure (Donnermeyer & Kreps, 1994), student's grade (Whiteley & Porter, 2000), nature of subject specialisation (Wildman & Torres, 2001), professionals (Jackman & Smith-Attisano, 1992), significant others (Wildman & Torres, 2001), beliefs and attitudes (Sutphin & Newsom-Stewart, 1995), and background information and demographic characteristics (Begg, Bantham & Tylor, 2008; Dlamini, 1993).

The curriculum (subject combination) offered for a subject specialisation at the teacher training institutions is likely to influence the choice of a subject specialisation (Dube & Habedi, 1989). Dlamini (2005) found that the combination of courses making up the programme had influence on the students' choice of a specialisation. A subject specialisation may be chosen because it offers skills that make the prospective teachers to be globally competitive.

Job consideration such as prospect of employment, high income, and pleasant working conditions is one of the major factors influencing the choice of a subject specialisation (Dlamini, 1993, Mokalake, 2005; Rababah, 2016; Wildman & Torres, 2001). Prestigious career and future job market have a potential to sway students towards a specialisation (Schuster & Costantino, 1986). Contrary, Jones and Larke (2001) found that salary was not considered to have a significant impact on students' choice of the career. In the same vein, student interest is also a major factor cited as responsible for the student's choice of a subject specialisation (Cannon & Broyles, 2006; Esters, 2007; Samela, 2010; Stokes, 2007; Sutphin & Newsom-Stewart, 1995; Tsikati, 2018; Tsikati, Dlamini & Masuku, 2016).

Wildman and Torres (2001) posited that prior student exposure to a subject specialisation positively influenced its likelihood to be chosen by students when making a subject specialisation. In addition, students are likely to be exposed to a subject specialisation through subjects taken at primary and secondary school. Sutphin and Newsom-Stewart (1995) when studying choice of agriculture by students observed that experience in related subject drew students towards that particular subject. Tsikati et al. (2016) found that related exposure was the most influential factor for student's choice of a specialisation at a teacher training institutions in Eswatini.

A grade obtained at senior secondary school examination is a factor determining the choice of a subject specialisation (Tsikati, 2014; Whiteley & Porter, 2000). Dlamini (1983) reported that the subjects taken at high school and the grade achieved, influenced the student's choice of specialisation. The same sentiments were reiterated by Dlamini (1993) Dlamini, (2005) and Whiteley and Porter (2000).

Professionals such as head teachers, teachers, lecturers, instructors, counsellors, and school auxiliary staff are said to be responsible for a student's choice of a specialisation (Byler, 1987; Fisher & Griggs, 1995; Jackman & Smith-Attisano, 1992; Omodi, 2013; Tsikati, 2014, 2018; Tsikati et al. 2016). Dlamini (1983) asserted that high school professionals in the desired field and guidance and counsellors posed a positive influence on the students' choice. However, Dlamini (1993) reported that individuals working for an institution did not influence student choice on a subject specialisation.

According to Ijeoma (2012), families and friends of students also influence a student to choose a subject specialisation. Parents' educational background may influence student views on continuing their education (Borchert, 2002; Mokalake, 2005; Owino & Odundo, 2016). However, Jackman and Smith-Attisano (1992) found that family members only influenced students to enrol in college without guiding them to select a subject specialisation.

Student choices into a subject specialisation is influenced by the nature of the courses offered by a specialisation (Tsikati, 2014; Tsikati et al., 2016). The pedagogical strategies, reputation, friendliness of the department affected the prospective teachers' choice of subject specialisation (Dlamini, 1993; Donnermeyer & Kreps, 1994; Sutphin & Newsom-Stewart, 1995). Similarly, Sutphin and Newsom-Stewart (1995) found that the course content of the department is also a factor for choosing a specialisation.

Beliefs and attitudes are perceived to be influential in the choice of a subject specialisation (Tsikati, 2014; Tsikati et al., 2016). Melhim and Rahman (2009) revealed that beliefs and attitudes are good predictors for participation in an educational programme. Beliefs and attitudes were also reported to be influential in choosing agricultural or vocational programmes (Sutphin & Newsom-Stewart, 1995). In Nigeria, students' attitudes influenced the choice of Geography (Akintade, 2012). In Eswatini, attitudes and beliefs were reported to have an influence on the success of the Pre-vocational programme (Mndebele & Dlamini, 1999; National Curriculum Centre, 2010).

Some subject specialisations have been associated with sex (Bathemi, 2010; Tsikati et al., 2016). This is evident as males dominate some majors

while others are dominated by females (Begs et al., 2008; Samela, 2010). Student's location, and parental education and occupation status are also considered factors when choosing a subject specialisation (Begs et al., 2008; Mokalake, 2005; Whiteley & Porter, 2000).

## **THEORETICAL / CONCEPTUAL FRAMEWORK**

The study was framed by the theory of decision-making (Wedeen, 2007). The theory has three constructs of factors influencing the choice of a subject, namely: student interest, usefulness and success. Thus, this study relates well with this theory as student's interest, usefulness of the subject specialisation and success in the subject specialisation influenced the choice of a subject specialisation by the prospective PTD teachers in Eswatini.

## **METHODOLOGY**

The study employed a pragmatism paradigm using a convergent / triangulation research design. The qualitative and quantitative aspects of the study were mixed at the presentation of findings. However, data collection was done concurrently. The study combined a modified Delphi technique and a survey questionnaire.

The target population were PTD applicants for the academic year 2010/2011 and experts or professionals in the three teacher training institutions in Eswatini. Purposive sampling was used in selecting the experts / participants for the Delphi process. The participants were Vice Principals, Head of Department, Deans of Student Affairs and Senior Lecturers. A census of 351 prospective teachers who were admitted at these teacher-training institutions was used. An up-to-date population frame was obtained from the college administrative offices. The up-to-date list ensured that frame error was controlled. The list was thoroughly checked to avoid duplication of names, thus, controlling selection error.

Delphi technique was used to generate data from the experts or professionals in the teacher training institutions while a questionnaire was used for data collection from the PTD student teachers. Only one round

was used to generate the data on factors influencing the choice of subject specialisation by PTD student teachers as perceived by the experts. The dependent variable in this study was prospective PTD teachers' choice of a subject specialisation. The independent variables were student interest, exposure to the specialisation, professionals, significant others, the nature of the specialisation, and the influence of background and demographic variables. The dependent variable (choice of subject specialisation) was measured using the four areas of specialisation: 1=Agriculture, 2=Languages, 3=Pure Sciences, and 4=Social Studies. The main independent variable (level of interest) was measured with a six-point rating scale: lowest being no interest and the highest being very high interest. The rival variables were then measured using six-point rating scale: lowest being no influence and highest being very high influence.

The instrument was validated by two agriculture lecturers from the two teacher training colleges and a lecturer from the department of Agricultural Education and Extension in the University of Eswatini. Post hoc reliability coefficient using Cronbach's Alpha from all cases was .74, thus, was acceptable (Kathuri & Pals, 1993). Non-response error was controlled by comparing the means of early and late respondents (Miller & Smith, 1983). The qualitative data were coded into emerging themes while the quantitative data were analysed using appropriate statistics guided by the objectives of the study. The alpha level was set at .05.

## **FINDINGS AND DISCUSSION**

### **Distribution of Prospective Teachers Applying for a Primary Teachers' Diploma by Intended Subject Specialisation at College**

The findings of the study involved the integration of the qualitative data from the modified Delphi technique and quantitative data from the survey questionnaire. The outcomes from both the modified Delphi technique and survey questionnaire were used to cross-validate each other.

Table 1 demonstrates that about one third (n=101, 29.5%) of the prospective teachers intended to specialise in Applied Sciences. Languages and Sciences areas of specialisation had the least students interested to specialise in each one of them (n=75 or 21.9% each).

**Table 1: Distribution of Prospective Teachers by Subject Specialisation**

Subject Specialisation	NTTC N=149		SANU N=135		WPC N=58		Total N=342	
	F	%	F	%	f	%	f	%
Applied Sciences	36	24.2	48	35.6	17	29.3	101	29.5
Languages	39	26.2	27	20.0	9	15.5	75	21.9
Pure Sciences	39	26.2	36	26.7	16	27.6	91	26.6
Social studies	35	23.5	24	17.8	16	27.6	75	21.9

**Factors Influencing the Choice of a Subject Specialisation by Prospective Teachers Applying for a PTD**

Findings from the quantitative data revealed that the level of student interest in a subject specialisation was the major factor ( $\mu = 4.51, \sigma = .81$ ) (Table 2). Similarly, findings from the Delphi process revealed that student interest related factors such as student interest, career interest (aptitude test), motivation and opportunity for career path were factors influencing student selection of subject specialisation. These findings on interest affirmed findings from numerous studies on the choice of a subject specialisation. Houser and Yoder (1992) concluded that interest was important in the selection of a specialisation in a college or university. Stokes (2007) studying factors influencing the decisions of university students to choose a specialisation to teach at high school found that interest was the main factor. Similar findings in Eswatini were reported by Dlamini (2005), Dube and Habedi (1989), Hadebe (2010), Tsikati (2018), Tsikati et al. (2016), and Xaba (2003).

Another factor that influenced the choice of subject specialisation by prospective teachers was positive attitude and impressions ( $\mu = 4.29, \sigma = 1.27$ ). Furthermore, attitude and personality related factors such as student attitudes, lecturer’s attitude, teacher’s attitude, and student’s personality emerged from the Delphi process as factors on student selection

of subject specialisation. Beliefs and attitudes held about an issue or event were reported earlier as good predictors of intentions to participate in an educational programme (Sutphin & Newsom-Stewart, 1995).

Similarly, Mndebele and Dlamini (1999) reported that parent's attitude could either enhance or discourage the choice of a specialisation in a Pre-vocational programme in Eswatini. It was found that pre-vocational education had a potential to change the country's economy, but was undermined by negative attitude by some members of the stakeholders (National Curriculum Centre, 2010).

The quantitative data revealed that related exposure ( $\mu = 3.95$ ,  $\sigma = 1.19$ ) and the nature of subject specialisation ( $\mu = 3.51$ ,  $\sigma = 0.92$ ) also influenced the choice of subject specialisation. Also, the Delphi process indicated that senior secondary school subjects, senior secondary school subject combinations, relevance of senior secondary school subjects to PTD were factors influencing student selection of subject specialisation. The Delphi technique revealed that experience related factors such as previous experience and related exposure also greatly influenced the choice of a subject specialisation in the teacher training institution in Eswatini. Wildman and Torres (2001) argued prior student exposure to a subject specialisation positively influences the choice of the specialisation. Affirmatively, Donnermeyer and Kreps (1994) also found that a student already exposed to a subject tended to enrol for the subject specialisation at the college more than students without such exposure did. In addition, Sutphin and Newsom-Stewart (1995) postulated that experience in related specialisation drew students towards that particular subject area of specialisation. The findings that the nature of specialisation influenced the choice of that particular subject specialisation were consistent with the findings by Wildman and Torres (2001). Wildman and Torres argued that the nature of the courses offered in a specialisation influenced a student's choice of that specialisation. Furthermore, Whiteley and Porter (2000) attested that subject content and method of teaching were major factors influencing the selection of subjects at secondary school level.

**Table 2: Factors Influencing the Choice of a Subject Specialisation**

<b>Factors</b>	<b>Mean(<math>\mu</math>)</b>	<b>SD(<math>\sigma</math>)</b>
Student interest	4.51	.81
Student grades	3.31	1.28
Outside college experience	3.95	1.19
Nature of specialisation	3.51	0.92
Professionals	2.80	1.26
Significant others	2.31	1.22
Attitude and impressions	4.29	1.27

**Note:** 1 = No influence; 2 = Low influence; 3 = Slightly low influence; 4 = High influence; 5 = Slightly high influence; 6 = Very high influence.

The modified Delphi technique revealed that the other factors responsible for the choice of subject specialisation by the PTD student teachers were: (i) previous grades related factors such as completing senior secondary school grade and number of credits obtained; (ii) guidance and influence by individuals related factors such as non-academic staff (e.g. receptionist, lecturers, administration, parents, parent’s education, parent’s status); (iii) friends related factors such as friends’ influence; (iv) availability of space (v) opportunities related factors such as opportunities to make money and (vi) role model related factors. However, these were not considered as factors influencing the choice of a subject specialisation by PTD student teachers in Eswatini as they were reported from the survey questionnaire.

**Background and Demographic Variables of Prospective Teachers Applying for a Primary Teacher Diploma**

Table 3 shows that 64% (n=219) of the respondents were females. About half (48.5%) of the student teachers were aged between 20 – 25 years. More than half (56.1%) of the respondents spent 0 – 4 years after completing senior secondary school and before enrolling into college. Only 15.5% of the respondents (n=53) were married and an overwhelming majority (n=275, 80.4%) of the respondents were living in rural areas. About 18% of the respondents had done temporary teaching before applying for the PTD programme. Most of the respondents (66.7%) were influenced by the subject combination in choosing a specialisation when applying for the PTD programme.

**Table 3: Description of Respondents by Background and Demographic Variables (N=142)**

Variables	Institutions							
	NTTC (N=149)		SANU (N=135)		WPC (N=58)		Total (N=342)	
	F	%	f	%	f	%	f	%
<b>Sex</b>								
Female	93	62.4	92	68.1	34	58.6	219	64.0
Male	56	37.6	43	31.9	24	41.4	123	36.0
<b>Age</b>								
20 – 25	78	52.3	65	48.1	23	29.7	166	48.5
26 – 30	51	34.2	57	42.2	31	53.7	139	40.6
31 – 35	17	11.4	12	8.9	3	5.2	32	9.4
36 – 40	3	2.0	1	0.7	1	1.7	5	1.5
<b>Marital status</b>								
Single	132	88.6	109	80.7	48	82.8	289	84.5
Married	17	11.4	26	19.3	10	17.2	53	15.5
<b>Home location</b>								
Urban	27	18.1	30	22.2	10	17.2	67	19.6
Rural	122	81.9	105	77.8	48	82.8	275	80.4
<b>Mother's occupation status</b>								
House wife	91	61.1	69	51.1	35	60.3	195	57.0
Self-employed	17	11.4	20	14.8	5	8.6	42	12.3
Part time employed	4	2.7	5	3.7	1	1.7	10	2.9
Full-time employed	37	24.8	41	30.4	17	29.3	95	27.8
<b>Number of years spent between completing high school and college entry</b>								
0 – 4	88	59.1	68	50.4	36	62.1	192	56.1
5 – 9	52	34.9	49	36.3	17	29.3	118	34.5
10 – 14	9	6.0	16	11.9	4	6.9	29	8.5
15 – 19	0	0	2	1.5	1	1.7	3	0.9
<b>Short-term teaching contract / temporary teaching</b>								
No	122	81.9	112	83.0	48	82.8	282	82.5
Yes	27	18.8	23	17.0	10	17.2	60	17.5
<b>Influenced by subject combination</b>								
No	56	37.6	37	27.4	21	36.2	114	33.3
Yes	93	62.4	98	72.6	37	63.8	228	66.7

## Differences between the Choice of Subject Specialisation and Selected Background and Demographic Variables

A Chi-square test was conducted to compare the frequencies between the factors influencing the choice of specialisation and selected background and demographic variables (see Table 4). The test indicated that a statistical significant difference only existed between the choice of subject specialisation and sex ( $X^2= 21.39$ ,  $p<.01$ ). Thus, the observation made was that male student teachers differed from the female student teachers on the choice a subject specialisation at teacher training institutions in Eswatini (see Table 4).

**Table 4: Comparison between the Choice of Subject Specialisation with Demographic and Background Variables**

Variables	$X^2$	$df$	$p$
Sex	21.39	3	.00
Age	3.29	9	.95
Marital status	3.65	3	.30
Home location	7.76	6	.25
Institution	2.64	3	.45
Father's education	36.02	21	.02
Mother's education	34.66	21	.03
Father's occupation	14.52	9	.11
Mother's occupation	10.02	9	.35
Subject combination	3.77	3	.29
Short-term teaching contract	4.42	3	.22
Interval between Grade 12 and college	7.67	3	.05

$p<.01$

## CONCLUSION AND RECOMMENDATIONS

The conclusion drawn from the study was that most prospective teachers in teacher training college in Eswatini intended to specialise in Applied Sciences. It was also concluded that student's interest; attitude and impressions; related exposure and the nature of subject specialisation were

major factors influencing the choice of subject specialisation by students in the teacher training institutions in Eswatini.

Thus, colleges' administration should pay special attention to student interest, as it is the most determining factor for the choice of a subject specialisation. Secondly, the institutional departments and lecturers should guard against actions that may paint a negative attitude towards the subject specialisation. The tertiary institutions should organise student expos, which will expose learners to the different careers and areas of specialisation in each career.

## REFERENCES

- Akintade, B. O. (2012). Considering the determinants of selecting geography as a discipline: The case of senior secondary school students in Ilorin, Nigeria. *Ozean Journal of Social Sciences*, 5(1). Retrieved from <http://ozelacademy.com>.
- Bathemi, M. (2010). *Factors influencing student's choice of Home Economics subject in north east senior secondary schools in Botswana*. Unpublished bachelor's thesis, University of Swaziland, Luyengo, Swaziland.
- Begs, J. M., Bentham J.H., & Tyler, S, (2008). Distinguishing the factors Influencing College Students' Choice of Major. *College Student Journal*, 4(22), 381-394. Retrieved from <http://www.eric.ed.gov> .
- Borchert, M.T. (2002). *Career choice factors of high school students*. [Research Paper]. The Graduate College University of Wisconsin-Stout. Department of Career and d Technical Education.
- Byler, B.L. (1987, September). *A study of undergraduate students enrolled in agriculture majors in Tennessee universities*. School of Agriculture and Home Economics. Tennessee Technological University. (ERIC Document No. ED 287 006).
- Cannon, J., & Broyles M. (2006). Factors influencing gifted and talented students' college decisions. *Journal of Southern Agricultural Education Research*, 56(1), 136 – 149.

- Dlamini B. M. (1983). *Factors influencing high school graduates in Swaziland to agriculture and home economics teachers*. University of Swaziland. Luyengo. Swaziland.
- Dlamini, M.P. (1993). Predictors of college students' reasons for pursuing programme of study and enrolling in tertiary institutions in Swaziland. *UNISWA Journal of Agriculture*, 2, 64-69.
- Dlamini, S. (2005). *Factors influencing students selection of an option in the Faculty of Agriculture University of Swaziland*. Unpublished bachelor's thesis. University of Swaziland. Luyengo. Swaziland.
- Donnermeyer, J. F., & Kreps G.M. (1994). Assessing college of Agriculture freshmen. *NACTA Journal*, 38(1), 45-48.
- Dube, M. A., & Habedi M. K. (1989). *Factors influencing students to enrol in the faculty of Agriculture in the University of Swaziland*. Published Research Project.
- Esters, L. T. (2007). Factors influencing post secondary education enrolment behaviours of urban agricultural education students. *Career and Technical Education Research*, 32(2), 79-98.
- Fisher, T. A., & Griggs, M. B. (1995). Factors that influence the career development of African-American and Latino youth. *The Journal of Vocational Education Research*, 20(2), 57-74.
- Garton, B. L., & Cartmell, D. D. (1999). Careers choices and factors influencing career change among agricultural education graduates. *Proceedings of the 26<sup>th</sup> National Agricultural Education Research Conference*, Orlando, FL, 26, 293-306.
- Hadebe, A. (2010). *Factors affecting students' selection of programme of study at UNISWA: Case Study of the faculty of Agriculture 2009/2010*. Unpublished bachelor's thesis. University of Swaziland. Luyengo. Swaziland.
- Houser, M. L., & Yoder, E. P. (1992). Factors related to the educational and career choices of talented youth. *Proceedings of the 19th National Agricultural Education Research Meeting*, St. Louis, MO, 19, 400-407.

- Ijeoma A. H. (2012). Career choice in engineering: The influence of peers and parents implication for counselling: Project Innovation (Alabama). *College Student Journal*, 46(3), Retrieved from <http://www.freepatentsonline.com/ISSN-0146-3934.html>.
- Jackman, W.J., & Smith-Attisano, R. A. (1992). Qualitative and quantitative methods add depth to recruiting study. *NACTA Journal*, 3(1), 46-50.
- Jones, W.A., & Larke A. (2001). Factors influencing career choice of African American and Hispanic Graduates of a Land Grant Institution. *Journal of Agricultural Education*, 42 (1), 38-48.
- John, E. (2000). Majors. *Black issues in higher education*, 17(1), 21-27.
- Kathuri, N. J. & Pals D. A. (1993). *Introduction to education research*. Njoro: Educational Media Centre.
- Melhim, A., & Rahman, A. (2009). Attitudes of Jordanian college students towards learning English as a foreign language. *College Student Journal*, 43(2). Retrieved from <http://www.freepatentsonline.com>.
- Miller, L. E., & Smith, K. L. (1983). *Handling non-response issues*. *Journal of Extension*, 21 <http://www.ijese.com/>.
- Mndebele C. B. S., & Dlamini Z. C. (1999). Parent related problems associated with home based vocational agriculture projects: the case of Swaziland. *Journal of International Agricultural Extension and Education*, 6(1), 37-44.
- Mokalake V. P. (2005). *Perceptions of Botswana Senior Secondary Schools students regarding the subject selection process in their schools*. Unpublished master's thesis. University of Swaziland. Luyengo. Swaziland.
- National Curriculum Centre (2010). *Prevocational Graduate Tracer Study Report*. Mbabane, Swaziland: Author.
- Omodi, O. (2013). *Factors influencing the choice of science subjects in Kenya's secondary schools: a case study of Langata High School in Nairobi County*. Unpublished post diploma research project. University of Nairobi. Nairobi. Kenya.

Owino, J. O. & Odundo, P. A. (2016). Factors Influencing Bachelor of Education Arts

Students' Selection of History as Career Subject: Case of University of Nairobi, Kenya. *Universal Journal of Educational Research*, 4(10), 2236-2243. Retrieved from <http://www.hrpub.org>. DOI:10.13189/ujer.2016.041002

Rababah, A. (2016). Factors influencing the students' choice of Accounting as a major: The Case of X University in United Arab Emirates. *International Business Research*, 9, (10), 25-32

Samela, T. (2010). Who is joining physics and why? Factors influencing the choice of Physics among Ethiopian university students. *International Journal of Environmental and Science Education* 5(3), 319-340. Retrieved from <http://www.ijese.com>.

Schuster, C. P & Costantino P (1986). Using marketing research to develop student recruiting strategies. *NACTA Journal*, 30(10) 5-9.

Stokes, A. (2007). Factors influencing the decisions of university students to become high school teachers. *Issues in Educational Research*, 17. Retrieved from <http://www.ier.org.au/ier17/2007conts.html>.

Sutphin M. & Newsom-Stewart, H. D. (1995). Student's rationale for selection of an Agricultural related courses in the high school by gender. *Journal of Agricultural Education*, 36(2), 55-61.

Tsikati, A. (2014). *Factors influencing the choice of subject specialisation by teacher training college students in Swaziland*. Unpublished master's thesis, University of Swaziland, Luyengo, Swaziland.

Tsikati, A. (2018). Factors influencing the choice of subject specialisation by students at teacher training institutions in Eswatini. *Proceedings of the 17<sup>th</sup> BOLESWANA Biennial Research Symposium*, 293 – 295. University of Namibia, Komassdal Campus, Windhoek, Namibia.

Tsikati, A., Dlamini B. M. & Masuku, M. (2016). Factors influencing the choice of an agriculture specialisation by college student teachers in Swaziland. *Journal of Agricultural Studies*, 4(1), 12-24

- Wedeen, P. (2007). Student's Perception of Geography: Decision making at age 14. *Education Matters*, 92(1). Retrieved from <http://www.geography.org>.
- Whitely, S., & Porter, J. (2000). *Student perceptions on subject selection, longitudinal perspectives from Queensland school*. Retrieved from <http://www.aare.edu.au/98262html>.
- Wildman, M., & Torres, R. (2001). Factors identified when selecting a major in agriculture. *Journal of Agricultural Education*, 42(2), 46-56.
- Xaba, S. K. (2003). *Factors affecting academic selection of prevocational education subjects in Swaziland High Schools*. Unpublished master's thesis. University of Swaziland. Luyengo. Swaziland.