Revisiting high school teachers’ education: Solution to sustainable development in rural Africa

Chinaza Uleanya¹*, Mofoluwake Oluwadamilola Uleanya² and Stephens Oluyemi³

Abstract: The study investigated the influence of high school teacher on the learning challenges experienced by undergraduates in selected institutions of learning in Nigeria and South Africa. Mixed methods research design was adopted for data collection. Quantitative data were obtained from 600 randomly selected undergraduate university students through the use of questionnaires while the qualitative data for the study were collected through interviews conducted with purposively 8 selected university lecturers and 8 high school teachers from 2 selected high schools from Nigeria and South Africa. The quantitative data were analysed through the use of descriptive statistics, while the qualitative data were thematically analysed. The outcome of the study suggests previous learning experiences as a major cause of learning challenges encountered by undergraduates. The paper recommends that the curriculum of teacher education and the type of training given to high school teachers should be revisited, only qualified teachers should be recruited and empowered.

Subjects: Educational Research; Education Studies; Classroom Practice

Keywords: learning challenges; teacher education; quality; Nigeria; South Africa

ABOUT THE AUTHOR
Chinaza Uleanya is a research fellow at the University of Zululand and University of Johannesburg respectively. He holds a doctoral degree in Social Science Education from the University of Zululand, South Africa. His research niche areas include: rural education and development, decolonization, globalisation and entrepreneurship. Different scholarly works in this niche research areas are to his credit. His co-authors in this paper include Dr Stephens Oluyemi and Mrs Mofoluwake Oluwadamilola Uleanya. While the former is a researcher at the University of South Africa (UNISA), the latter is a doctoral student and researcher at the University of Zululand, South Africa.

PUBLIC INTEREST STATEMENT
Previous learning experiences of university students seem to have a great impact on their learning abilities. Hence, the position of high school teachers tends to be of immense values though sometimes overlooked or less appreciated. Therefore, this study investigated the effect of university students’ previous experiences cum learning challenges experienced in the university. Two universities in Nigeria and South Africa were selected for the study. Questionnaires and semi-structured interviews were used for data collection. The quantitative data were analysed through the use of descriptive statistics, while the qualitative data were thematically analysed. The outcome of the study shows that previous learning experience is a major cause of learning challenges encountered by university students. Hence, the paper suggests amongst others that the curricula of teacher education and the type of training given to high school teachers be revisited.
1. Introduction

Education and development operate in synergy like Siamese twins (Mitra, 2011). This implies that development is dependent on education. In other words, development will be considered to be dependent on the level of education experienced in a society. According to Nelson Mandela Foundation (2014), education is described as a tool for instigating and promoting change in the society. Societies of the world which desire developments are said to embrace education (Mitra, 2011). This implies that every society in which the educational system is lagging may not enjoy reasonable and sustainable development. Historically, in the 1970s education was adopted as a tool for developing African nations (Adeyemi, 2001). In recent times, the educational system seems to have failed in proffering the desired sustainable developmental changes in the African society (Rolleston & Adefeso-Olateju, 2014). According to Akoojee and Nkomo (2008) it can be attributed to the poor quality of education received by students within the continent at the university level. However, Souriyavongsa, Abidin, Rany, Mei, and Aloysius (2013) in support aver that regardless of the quality of university education that may be provided, the previous learning experiences of undergraduates constitute learning challenges and is a factor that is worthy of investigation. Surmise to state that while development is hinged on the level of education provided and experienced in a society, the quality of such education as well as learners’ characteristics are to be considered. Quality of education in this regard implies the availability of access to learning, teaching and support materials such as library facilities, lecture theatres, laboratories, up-to-date technological gadgets, amongst others. Hence, the reason for this study which aims at exploring the causes of learning challenges experienced by undergraduate university students in relation to high school experiences using the South African and Nigerian context.

Additionally, education is expected to be a problem-solving venture. In the 1970s, African nations gave attention to education and in turn reaped from it. Education provided solutions to problems experienced by different African nations in different sectors. However, in recent times, education in the continent seems not to aid the desired economic growth and sustainable development. Graduates seem to be rolled out into the society annually without being adequately equipped whilst, so much money is claimed to be budgeted and expended on education annually. Different studies such as Akoojee and Nkomo (2008) and Lewin and Mawoyo (2014) have attributed the causes of learning challenges among undergraduate students to experiences at the university, while few such as Souriyavongsa et al. (2013) and Alotaibi, Paaet, Aldiahani, and Alrabah (2014) have traced the causes to high school experiences. This implies that high school education which is expected to build and prepare students for university seems insufficient or unproductive. This could be attributed various factors such as the inability of learners to properly learn as they are taught, teachers not discharging their responsibilities to the maximum amongst others. Thus, this study basically focuses on identifying the causes of learning challenges hindering students in universities in relation to their high school experiences. Meanwhile, the claim of Souriyavongsa et al. (2013) that the previous learning experiences of students affect their academic performance and the perceived link between high school and university experiences give the base for this study. In achieving the aim of the study, attempts will be made to proffer answers to the following research questions: What are the common learning challenges experienced by undergraduates? Do high school teachers contribute to the causes of learning challenges of undergraduates? What is the relationship between high school experiences and learning challenges experienced by undergraduates?

1.1. Conceptualizing Rural Africa

Rural Africa includes certain portions of different countries within the continent characterized with peculiar characteristics such as less-development, little or no social amenities, low-quality institutions of learning, amongst others (OECD, 2007). According to Torero and Chowdhury (2005) over 60% of rural Africa have access to good roads, let alone other basic infrastructures. According to African Development Bank [AFDB] (2010), these parts are usually in isolation of others. Moreover, the Provincial Growth Development Plan [PGDP] of South Africa (2009) states that agriculture is the mainstay of their source of income and living of the people within this axis of the continent. In
addition, the International Monetary Fund [IMF] (2011) report on revenue mobilization in developing countries describes rural Africa as segments of nations within the continent that are devoid of certain needed amenities and features, prominent among them is the existence of little or no technological advancement. A study conducted by Fan and Chan-Kang (2005) suggests that rural Africa lack agricultural research and development, as well as the implementation and provision of irrigation systems, education, electricity and telecommunication, thus experience a high rate of poverty. This implies that rural African societies experience underdevelopment and high rate of poverty due to lack of implementation of various phenomena, education inclusive. However, Nkomo, Sehoole, and Kevany (2007) state that the establishment of rural-based institutions is a major solution to enhancing development in rural Africa. Thus, the establishment of education systems in rural areas is in a bid to curb underdevelopment. According to Dani and Shah (2016), these institutions of learning are usually intentionally established in strategic positions in order to ensure that they proffer solutions to existing challenges in communities and enhance sustainable developments in such areas. In other words, the establishment of rural-based institutions of learning is aimed at giving privilege to less advantageous local communities with the aid of bringing sustainable development to such areas through empowerment, support and collaboration with different education stakeholders. Thus, rural universities are established to cater for the peculiar needs of the people within the community while taking into cognizance the peculiar nature of the students (Bookin-Weiner, 2015). Surmise to state that rural Africa are locations in the continent characterized by poverty, less development amongst others. Moreover, education is a major solution to transforming such areas. This implies that developing rural Africa is largely dependent on the level and quality of education made available. Uleanya, Rugbeer and Duma (2018) opine that the curriculum of rural Africa is a useful tool which can aid the realization of the goal of developing rural African societies through education. This means that rural-based African institutions of learning are to be operated on uniquely designed curricula which will enhance development in such areas through education.

2. The theory of Reasoned Action (TRA)
The Theory of Reasoned Action (TRA) is an established model deduced from social psychology which is used to explain and interpret the determinants of consciously intended behaviours. The behaviours can be positively and negatively related (Ghobahloo, Zulkiflu, & Aziz, 2010). The behaviour is largely dependent and controlled by the beliefs and feelings of individuals (Dillon & Morris, 1996). The TRA proposes that the performance of the behaviour of an individual is influenced by his/her behavioural intention which is determined by the individual’s attitude towards the subject of focus. In other words, attitude towards the behaviour and subjective norm are the two determinants that are used to predict an individual’s behavioural intention to perform a given behaviour. According to TRA, a teacher’s success in training learners is dependent on his/her behaviour towards the future of the learners. Teachers will experience challenges and struggle trying to teach learners if they lack the right behaviour towards their profession (Souriavanga et al., 2013). Hence, teachers are expected to be motivated to display professionalism in discharging their duties, towards their learners and society at large, in order for teaching and learning exercises to effectively take place. Moreover, this will be possible if teachers are taught and motivated from their training institute. Surmise to state that the curriculum of teacher education programme should inculcate motivational works towards building the morale of teachers while in training. Thus, the need for the study which aims at identifying the link between the causes of learning challenges hindering university students and their high school experiences, with emphasis on rural-based universities.

3. Methodology

3.1. Research design
Post-positivism paradigm research approach is adopted for this present study, hence, quantitative and qualitative methods are used for data collection in the study. This was aimed at enhancing the collection of in-depth information, as well as generalization of the collected data. Kumar (2014) opines that quantitative data enhances generalization while qualitative data aids in-depth study of
a phenomenon. Thus, in order to ensure in-depth information and to be able to generalize collected data, mixed-method approach was adopted. In this study, quantitative data which was retrieved from students were used to proffer answers to all three identified research questions. Qualitative data were used to proffer answers to the second and third research questions in order to support the findings from the student respondents of the study.

3.2. Population sample
The population sample of the study comprise 600 undergraduate rural university students, 8 lecturers and 8 high school teachers from Nigeria and South Africa. The students were selected for the quantitative part of the study while lecturers and teachers were selected for the qualitative study. A total of 300 student participants from each of the 2 rural universities were randomly selected, while, 4 academic staff members and 4 high school teachers each from South Africa and Nigeria were conveniently selected. The population samples were selected based on the claim of reviewed literature relating students’ previous learning experiences as opine by Souriyavongsa et al. (2013). Also, the researchers perceived link between primary, high school and university education. Table 1 shows a distribution list of student respondents, demography of participating teachers and lecturers.

3.3. Instrument and administration
Questionnaire and semi-structured interview were employed for data collection. The questionnaire which was self-designed was used to collect quantitative data from student participants in an attempt to answer the first and second research questions. Semi-structured interviews were conducted for lecturers and teachers in order to collect qualitative data and provide answers to the second and third research questions. The questionnaires were self-administered with the aid of two research assistants to seven hundred (700) randomly selected students. However, only six hundred (600) duly completed questionnaires were adopted for analysis in the study. This was due to irregularities in the completed questionnaires which led to the rejection and destruction of one hundred (100) questionnaires.

The study aimed at finding out the causes of learning challenges among undergraduate university students in South Africa and Nigeria in relation to high school experiences. 300 randomly selected students were initially given open-ended questions to state their learning challenges and the assumed causes, thereafter, the obtained information was used to create a 5-point Likert scale self-designed questionnaire was used. The questionnaire had two sections. The first section aimed at collecting the personal data of respondents in order to have an overall knowledge of the respondents. The second section focused on if teachers contribute to the causes of learning challenges experienced by undergraduates. However, semi-structured interviews were conducted with lecturers to answer the second and third research questions.

3.4. Data analysis
To determine the statistical analysis of the quantitative part of the study, SPSS 2015 version which is a computer statistical software programme specifically designed for the social science research was used. The importance of using SPSS in the study was to select the correct statistical tests to analyse the retrieved data. The qualitative data from semi-structured interviews conducted for lecturers and teachers were analysed manually through the use of thematic coding. The researchers initially employed the service of a transcriber who transcribed the responses of the interviewees, after which the responses were coded into different themes based on the questions that were asked, the countries and the responses received.

4. Result
The results of the study which were generated from the analysed quantitative and qualitative data are presented below based on the different research questions guiding the study:
### Table 1. List of respondents/participants

| DEMOGRAPHICS | South Africa | Nigeria |
|--------------|--------------|---------|
|              | Frequency (N = 300) | Percent (%) | Frequency (N = 300) | Percent (%) |
| GENDER       |              |          |              |          |
| Male         | 140          | 47       | 142          | 47       |
| Female       | 160          | 53       | 158          | 53       |
| AGE          |              |          |              |          |
| 18–29        | 150          | 50       | 150          | 50       |
| 30–39        | 145          | 48       | 146          | 49       |
| 40-Above     | 5            | 2        | 4            | 1        |
| FACULTY      |              |          |              |          |
| Arts         | 82           | 27       | 87           | 29       |
| Education    | 86           | 29       | 89           | 30       |
| Law          | 59           | 20       | 51           | 17       |
| Science      | 73           | 24       | 73           | 24       |
| Total        | 300          | 100      | 300          | 100      |

Demography of Interviewed Teachers

| GENDER | South Africa | Nigeria |
|--------|--------------|---------|
| Male   | 1            | 25      | 2        | 50      |
| Female | 3            | 75      | 2        | 50      |

| AGE    | South Africa | Nigeria |
|--------|--------------|---------|
| 30–40  | 2            | 50      | 1        | 25      |
| 41–50  | 1            | 25      | 2        | 50      |
| 51- Above | 1    | 25      | 1        | 25      |
| Total  | 4            | 100     | 4        | 100     |

| QUALIFICATION | South Africa | Nigeria |
|---------------|--------------|---------|
| Honours       | 3            | 75      | 2        | 50      |
| Masters       | 1            | 25      | 2        | 50      |
| Total         | 4            | 100     | 4        | 100     |

| YEARS OF EXPERIENCE | South Africa | Nigeria |
|---------------------|--------------|---------|
| 1–5                 | 1            | 25      | 1        | 25      |
| 6–10                | 2            | 50      | 1        | 25      |
| 11-Above            | 1            | 25      | 2        | 50      |
| Total               | 4            | 100     | 4        | 100     |

Demography of Interviewed Lecturers

| GENDER | South Africa | Nigeria |
|--------|--------------|---------|
| Male   | 2            | 50      | 2        | 50      |
| Female | 2            | 50      | 2        | 50      |

| AGE    | South Africa | Nigeria |
|--------|--------------|---------|
| 30–40  | 2            | 50      | 0        | 00      |
| 41–50  | 2            | 50      | 3        | 75      |
| 51- Above | 0  | 00      | 1        | 25      |
| Total  | 4            | 100     | 4        | 100     |

| QUALIFICATION | South Africa | Nigeria |
|---------------|--------------|---------|
| Honours       | 2            | 50      | 1        | 25      |

(Continued)
Research Question: What constitutes the common learning challenges experienced by undergraduates?

Table 2 shows the common learning challenges experienced by undergraduate university students. These learning challenges include cognitive, lecturer–student relationship and past experiences. For instance, 82% of the South African student respondents agree that they struggle trying to understand new concepts, 3.7% are undecided and 14.3% disagree. Meanwhile, 78.4% of Nigerian student respondents agree that they struggle trying to understand new concepts, while 6.3% are undecided and 15.3% disagree. This finding agrees with the works of Akoojee and Nkomo (2008) as well as Uleanya and Gamede (2018) who opine that students struggle to understand new concepts due to various reasons such as available infrastructures (libraries, lecture theatres, among others). Souriyavongsa et al. (2013) state that it is the previous learning experiences of students that constitutes their learning challenges. Trying to understand new concepts in this study was used to mean, attempts by students to acquire new information and knowledge. Additionally, 79% of the South African student respondents agree that they easily lose concentration when undertaking learning activities, while 2.3% are undecided and 18.7% disagree. Moreover, 76.3% of the Nigerian student respondents agree that they easily lose concentration while undertaking learning activities such as lectures, reading, amongst others. However, 3.7% of the Nigerian student respondents are undecided and 20% disagree. This finding concurs with the work of Fook and Sidhu (2015) who state that easy loss of concentration during learning activities constitute learning challenges for students. They further opine that the recommended reading materials, volume of assignment to students, as well as feedbacks may contribute to the easy loss of concentration of students during teaching and learning activities. Moreover, this finding also concurs with the work of Okioga (2013) who opines that easy loss of concentration constitutes learning challenges for students. Uleanya and Gamede (2018) state that availability and proper usage of Learning and Teaching Support Materials (LTSMs) during teaching and learning activities contribute to students’ easy loss of concentration. Moreover, easy loss of concentration by students in this study was used to imply tendencies of students to easily lose focus during teaching and learning activities.

Furthermore, Table 2 shows that lack of good foundation in students’ choice of course constitutes learning challenges for them. For instance, 80.4% of the South African students agree that their lack of good foundation in their choice of course constitutes learning challenges for them, 2.0% are however undecided, while 17.6% disagree. On the other hand, 81.3% of the Nigerian student respondents agree that their lack of good foundation in their choice of course constitutes learning challenges for them, 9.3% are undecided while 9.4% disagree. This finding corroborates the works of Agba (2015) and Wallet and Melgar (2015) who opine that the previous knowledge of students contributes to their abilities to learn new concepts. Uleanya and Gamede (2017) state that the previous learning of students contributes to their level of exposure and impact their learning abilities positively or negatively.
Additionally, student–teacher relationship constitutes learning challenges for students. Table 2 shows that 68.9% of the South African student respondents agree that the type of relationship they had with their high school teachers constitutes part of their learning challenges, 2.7% are undecided, while 28.4% disagree. Moreover, 86.3% of the Nigerian student respondents agree that their relationship with teachers at high school level constitutes part of their learning challenges at the university, 1.7% of the students are undecided, while 12.0% disagree. This finding agrees with the works of Tucker (2016) and Kaufman and Sandilos (2016) which suggest that poor student–lecturer relationship constitutes learning challenges experienced by students. Meanwhile, Shore (2016) states that the relationship between students and lecturers help to boost the self-confidence and eventual academic success of the students.

Research Question: Do high school teachers contribute to the causes of learning challenges of undergraduates?
This research question was answered quantitatively and qualitatively. Part of the responses from
the questionnaire was used to answer this research question as well as responses from the
lecturers and teachers.

Table 3 shows the causes of learning challenges experienced by the students. These causes
include the adopted language of instruction, availability of infrastructure, pedagogy as well as
assessment and feedback. For instance, 73.0% of the South African student respondents agree
that the adoption of English language as the medium of instruction at high school level causes
learning challenge for them, 5.0% of the students are undecided, while 22.0% disagree. On the
contrary, 26.3% of the Nigerian student respondents agree that the adoption of English language
as a medium of instruction causes learning challenge for them even at the university level, 12.7%
are undecided, while 61.0% disagree. This finding suggests that while the adoption of English
language causes learning challenges for many of the South African student respondents, it does
not cause learning challenge to many of the Nigerian student respondents. This finding corrobo-
rates with the work of Uleanya and Gamede (2017) who opine that language of instruction
constitutes learning challenges for learners. This is based on the policies guiding the adopted
language of instruction. For instance, South African policy on language of instruction allows the
use of all 11 official languages in the country, whereas, learners are assessed and given feedback
only in one of the languages. However, the reverse seems to be the case with the Nigerian student
respondents possibly because English is recognized as the only official language of instruction in
Nigerian institutions of learning.

Also, 65.3% of the South African student respondents agree that lack of infrastructures at high
school level causes learning challenges for them in the university, 5.7% of the students are
undecided and 29.0% disagree. On the other hand, 66.0% of the Nigerian student respondents
agree that lack of infrastructures at high school level causes learning challenges for them in the
university, 4.7% are undecided, while 29.3% disagree. This finding agrees with the works of Torero
and Chowdhury (2005) and Souriyavongsa et al. (2013) who state that infrastructure contribute to
the learning abilities of students and consequently their academic achievement.

Pedagogy at high school level also causes learning challenges for the students. For instance,
Table 3 shows that 58.7% of the South African student respondents agree that the way they were
taught at high school contributes to the learning challenges experienced in the university, 14.0% of
the students are undecided, while 27.3% disagree. Meanwhile, 63% of the Nigerian student
respondents agree that the way they were taught at high school level contributes to the learning
challenges experienced in the university, 16.7% of the students are undecided while 20.3%
disagree. This finding concurs with the work of Wall and Sarver (2014) who opine that the
discrepancy in the pedagogy adopted by different teachers and lecturers can constitute academic
negligence and hamper the learning abilities of learners and students. Thus, the way high school
teachers teach their learners contributes to the learning abilities or disabilities of such learners
when they transcend to higher levels of education.

Assessment and feedback at high school level contributes to learning challenges at university
level. For instance, Table 3 shows that 61% of the South African student respondents agree that
the way and manner they were taught and assessed at high school contributes to their learning
challenges in the university, 8.3% are undecided, while 30.7% of the students disagree. Moreover,
64% of the Nigerian student respondents agree that the way they were taught and assessed by
teachers at high school contributes to their learning challenges in the university, 7.7% of the
Nigerian student respondents are undecided, while 28.3% disagree. This corroborates the work of
Fook and Sidhu (2015) who state that students’ experiences challenges and sometimes perform
poorly due to the way they are assessed and the kind of feedback they receive from teachers. In
the context of South Africa and Nigeria, many high school learners are not assessed or given
feedback electronically, however, in the university such is introduced. This tends to affect their
learning abilities.
4.1. Findings from qualitative data

Data from interview sessions were used to answer research questions 2 and 3. Results are as presented below.

Research Question: Do high school teachers contribute to the causes of learning challenges experienced by undergraduates?

Responses from lecturers reveal that teachers can contribute to learning challenges experienced by students because, teachers were once students and will transfer what they were taught. Responses from lecturers and high school teachers are captured below under the theme: efficacy of the roles of high school teachers in the academic pursuits and success of university undergraduates:

| Statement: The adopted language of instruction at high school contributed to what affected my learning ability at university |
|---------------------------------------------------------------|
| **Response** | **South African Respondents** | **Nigerian Respondents** |
|                | **Frequency** | **Percentage** | **Frequency** | **Percentage** |
| Strongly Disagree | 36           | 12.0          | 88           | 29.3          |
| Disagree       | 30           | 10.0          | 95           | 31.7          |
| Undecided      | 15           | 5.0           | 38           | 12.7          |
| Agree          | 121          | 40.3          | 43           | 14.3          |
| Strongly Agree | 98           | 32.7          | 36           | 12.0          |
| Total          | 300          | 100           | 300          | 100           |

| Statement: The available infrastructures in my high school were limited and that contributes to what affected my learning ability in the university |
|---------------------------------------------------------------|
| **Response** | **Frequency** | **Percentage** |
| Strongly Disagree | 42           | 14.0          |
| Disagree       | 45           | 15.0          |
| Undecided      | 17           | 5.7           |
| Agree          | 109          | 36.3          |
| Strongly Agree | 87           | 29.0          |
| Total          | 300          | 100           |

| Statement: The way I was taught at high school has affected my learning ability in university |
|---------------------------------------------------------------|
| **Response** | **Frequency** | **Percentage** |
| Strongly Disagree | 25           | 8.3           |
| Disagree       | 57           | 19.0          |
| Undecided      | 42           | 14.0          |
| Agree          | 99           | 33.0          |
| Strongly Agree | 77           | 25.7          |
| Total          | 300          | 100           |

| Statement: The way my high school teachers assessed and gave feedback to me contributes to the learning challenges I am experiencing at the university |
|---------------------------------------------------------------|
| **Response** | **Frequency** | **Percentage** |
| Strongly Disagree | 45           | 15.0          |
| Disagree       | 47           | 15.7          |
| Undecided      | 23           | 8.3           |
| Agree          | 98           | 32.7          |
| Strongly Agree | 87           | 28.3          |
| Total          | 300          | 100           |

Table 3. Student respondents’ views on causes of learning challenges with reflection from high school experiences
Theme: Efficacy of the Roles of High School Teachers in the Academic Pursuits and Success of University Undergraduates

The responses of interviewed lecturers and teachers from the two selected countries are presented below. The South African Lecturer is represented by “SAL” while “NL” is used to mean “Nigerian Lecturer”. “SAT” represents South African Teacher, while “NT” means Nigerian Teachers.

The responses of interviewees on the identified (efficacy of the roles of high school teachers in the academic pursuits and success of university undergraduates) are presented below:

**SAL**
1. Teachers possess the shoulders upon which students climb
2. All we do in the university is just to build on the foundation that has been laid. The laying of this foundation begins from the crèche, but so much is done in the high school which is where students make up their minds on the career path they wish to follow.
3. The university is not a foundation laying ground, hence learners who miss it from high school, may continue to struggle throughout their days in the university
4. We can easily identify students who attended high schools of repute based on their performances on campus, except for few who are misled when they are admitted in the university.

**NL**
1. Our place cannot be overemphasized or ruled-out. However, these people are adults and should be able to decide, seek and follow their life ambitions
2. Students can succeed without university education, but will struggle more in life without high school education. I believe, the onus is on high school teachers to students to become better
3. Lecturers will struggle without the efforts of high school teachers
4. Students can still perform well without our input as long as they have good foundation from primary school, after all some students only manage to write General Certificate Examinations (GCE) by reading on their own

The finding of the qualitative study shows that lecturers hold the view that comprehension at the high university level is dependent on the level of work done at high school level. Surmise to state that university students thrive well when a good background has been laid. From the statements above, it can be deduced that high school teachers have influence on the learning abilities of university students. On the contrary, high school teachers agreed that their roles are paramount in enhancing the learning abilities of students, especially at high school level. However, students are expected to play certain vital roles. The finding from the identified theme agrees with the work of Souriyavongsa et al. (2013) who opine that the previous learning experiences of students contribute to their academic achievement. The previous learning experiences of students
in this regard include their primary and high school activities. Suffice to state that, high school teachers help to navigate the parts of university students, while lecturers help to ensure smooth sail. However, some high school teachers opine that primary school teachers have bulk of the work to do, while theirs is to build on the foundation already laid. Uleanya and Gamede (2018) view learning like a spiral or brick where knowledge building is interdependent. In other words, what is to be learnt at a stage is dependent on what has previously been learnt.

Research Question: What is the relationship between high school experiences and learning challenges experienced by undergraduates?

The responses of the lecturers suggest that self-confidence of students, ability to stay focus, concentrate and build problem-solving attitudes are best built at the high school level. Hence, when students are admitted into the universities, lecturers build on things that already exist. The responses of lecturers show that they believe that students who fail to build their self-confidence, learn to focus, relate well with people from high school will experience some forms of learning challenges when admitted into the university. Some of the responses from lecturers regarding this research question are presented below:

Theme: High School Experiences Nexus University Students’ Learning Challenges

The responses of South African and Nigerian lecturers on the theme: high school experiences nexus university students’ learning challenges are presented.

SAL₁: Students in the universities are lectured, not necessarily taught as the case may be in high schools.

SAL₃: Students learn to build self-esteem and self-confidence from high schools, not university. In fact, some begin to build theirs from primary schools. There are always differences between students who manage to build their self-confidence from high school level compared to those who try to build theirs when admitted to the university.

SAL₂: Majority of what lecturers do at the university is to guide students, the major work is done at the high school level. Most times, when students fail to learn some basic things at the high school, they find it difficult to catch-up at the university.

SAL₄: Students who are privileged to get it right at the high school level are likely to outshine their peers in the university.

NL₁: There is a difference between lecture and teaching. University students are to be lectured, not taught.

NL₃: High school teachers help to lay the foundation upon which lecturers at the tertiary level build. Once a good foundation has been laid from high school, students will not struggle to surmount at the university.

NL₄: High school is a determinant, that is one major reason students are made to specialize at that level. By specialize, I mean decide where they want to belong: Art, Commercial or Science field.

NL₂: We cannot rule-out high school education. For me, success of students begins from there, not when they get to the university, though I know that some students pick at the university.

The findings from the qualitative study on the second identify theme suggest the importance of high school education which is considered as the bedrock of university or tertiary education. It shows that high school learning challenges affect the learning abilities of students at the university level. This finding coincides with the work of Souriyavongsa et al. (2013) who opine that the learning challenges experienced by learners at high school learning level may contribute to the challenges of the students at the university level.

5. Discussion of findings
The study shows that university students in South Africa and Nigeria experience similar challenges such as cognitive learning challenges, struggling to learn new concepts, easy loss of concentration,
and student–lecturer relationship. This finding concurs with the works of Postareff, Lindblom-Ylanne, and Nevgi (2007), Souriyavongsa et al. (2013) and Fook and Sidhu (2015) who opine that cognitive learning challenge, cognitive learning challenge, poor student– lecturer relationship and past learning experiences (poor academic foundation) of students constitute learning challenges for undergraduate university students. This implies that students are likely to perform well if the right foundations are being built. In addition, the study concurs with the work of Shore (2016) who opines that when students learn to build their self-confidence at high school level, they easily overcome certain forms of learning challenges.

The study reveals that high school experiences influence the learning abilities of students at the university level. This corroborates the work of Navsaria, Pascoe, and Kathard (2011), Abbasi and Mir (2012) and Souriyavongsa et al. (2013) who aver that the success of students at the university level is traceable to their high school activities and experiences.

Also, the study shows that teachers contribute to the learning challenges experienced by students at the university. This concurs with the works of Steyn, Harris, and Hartell (2014) and Hietanen, Ruokonen, Ruismaki, and Enbuska (2016) who opine teachers are impacted by their education and they in turn transfer to their students. This implies that teacher education influences the beliefs, norm and practices of teachers, thereby influencing what is passed across to students. Surmise to state that students taught by teachers who are not well grounded in their teaching subject areas will experience learning challenges at a later stage of their education.

6. Conclusion

The study investigated the influence of high school teachers on the learning challenges experienced by undergraduates in selected rural universities in Nigeria and South Africa. The study showed that the common learning challenges across the two selected universities in Nigeria and South Africa are common. These include cognitive, lecturer–student relationship and past experiences. While the cognitive challenge entails the inability of students to assimilate and cope with study materials, lecturer–student relationship includes the rapport that exists between students and their lecturers, and past experiences entails the academic foundation of students. The responses from the quantitative and qualitative data show that high school teachers have influence over the learning abilities of undergraduates, as high school is the bedrock upon which university education is built. Thus, lecturers at the university tend to blame the failure of students on their high school experiences based on their foundation, while high school teachers seem to blame the failure of the learners on their primary school experiences. Meanwhile, continuous transference of blame only aggravates the challenges of the students, rather than resolving them. Uleanya and Qumedde (2018) state that teacher-students’ relationship should be built to a point that it can help students to be confident to face challenges regardless of their previous experiences. Surmise to state that good student–lecturer relationship can be a remedy to assist students to get over previous experiences and get better. This implies that the claim of Souriyavongsa et al. (2013) on previous learning experiences of high school learners being the reason for learning challenges at university level is partly acceptable, however, other factors as identified above are contributory. Surmise to state that previous learning experiences of students are contributory factors to learning challenges experienced at university level. Thus, other contributory factors are to be catered for to ensure quality wholesome experiences of students at university level.

6. Recommendations

Sequel to the findings of this study, the following recommendations are made:

- The curriculum of teacher education should be designed to enable high school teachers to acquire the necessary skills needed in helping high school learners integrate easily into university
system. These skills include the forms of assessment, feedback to be given to learners especially those preparing to leave for university education, as well as the adopted pedagogy.

- Periodic indaba involving high school teachers and university lecturers should be organized. This will help promote unity of thought, ideas, strategies, as well as attainment of vision. In this regard, certain high schools can be attached to a specific university which will give them the necessary guidance.

- Good learners-teachers’ relationship as well as good students–lecturers’ relationship should be encouraged. This will help to boost the confidence level of the students and in turn reflect positively on their academic performance. For instance, learners and students will be able to relate freely with their teachers and lecturers, respectively, ask and answer questions conveniently knowing that they are relating with one who has their interest.

- Rural high schools’ curricula should be designed to ensure that learners can adjust to university experiences either in urban or rural areas. This can be done through the forms of exposure given to learners while still in high school. For instance, learners can be made to visit universities, lecture theatres, industries, firms, amongst others. During these visits, they can be enlightened more on happenings and expectations.

- Learners should be educated and guided on study tips. This will help guide them in overcoming some forms of cognitive learning challenges. This can be introduced at the university level as well through the office of the student affairs office: career and guidance counsellors.

- Rural high school teachers’ education should be made to include trends in ICT as it concerns education. Consequently, these teachers should be motivated and monitored to use ICT facilities as they teach, assess and give feedbacks to their learners. This will in turn reflect in the experiences of learners and help them to prepare for university experiences. In other words, learners learning experiences in the high school should not differ greatly with what will be encountered at university level.

6.1. Suggestion for further study

This study was limited to selected institutions of learning in two African countries. Hence, the study suggests the need for research into High School Teachers’ previous experiences and how this impact on future undergraduate students. Also, the roles of universities in helping high school learners to integrate into higher education-level: identifying some challenges that new students bring and experience in their universities can as well be considered.

Funding
The authors received no direct funding for this research.

Author details
Chinaza Uleanya1
E-mail: chinazaulnya@yahoo.com
ORCID ID: http://orcid.org/0000-0002-7732-0905
Mofoluwake Oluwadamilola Uleanya2
E-mail: chinazamoses90@gmail.com
Stephens Oluyemi3
E-mail: oluyemis@gmail.com

1 Educational Management and Leadership, University of Johannesburg, Johannesburg, South Africa.
2 Communication Science, University of Zululand, Empangeni, South Africa.
3 Department of Educational Psychology, University of South Africa, Pretoria, South Africa.

Correction
This article has been republished with minor changes. These changes do not impact the academic content of the article.

Citation information
Cite this article as: Revisiting high school teachers’ education: Solution to sustainable development in rural Africa, Chinaza Uleanya, Mofoluwake Oluwadamilola Uleanya & Stephens Oluyemi, Cogent Social Sciences (2019), 5: 1653545.

References
Abbasi, A. R., & Mir, G. M. (2012). Impact of teacher’s ability, students’ work ethics and institutional environment on student performance at university of Gujarat. Middle East Journal of Scientific Research, 2(4), 572–579.
Adeyemi, K. (2001). Equality of access and catchment area factor in university admissions in Nigeria. Higher Education, 32, 307–322. doi:10.1023/A:1017965905830
African Development Bank Group and Organisation for Economic Co-operation and Development. (2010). Public resource mobilization and aid in Africa. African economic outlook. Tunisia. Retrieved from www.oecd.org/dataoecd/
Agba, M. S. (2015). Electric power supply and work performance of academic staff in Nigerian Universities: A synergy analysis. Indian Journal of Commerce & Management Studies, 6(1), 33–46.
Akoojee, S., & Nkomo, M. (2008). Access and quality in South African higher education: the twin challenges of transformation. South African Journal of Higher Education, 21(3), 385–399. doi:10.4314/sajhe.v21i3.25712
