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INTEGRATING SOFT SKILLS INTO A TEACHER EDUCATION CURRICULUM

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Abstract

Recent developments suggest that soon, soft skillsare likely to become moreimportant in sustaining teachers duringteaching. This study looks at pre-service teachers' soft skills gained from participation insoft skillscourses that are compulsory second- and third-year undergraduate teacher education course designed to equip preservice teachers with sustainablesoft skills.We grounded our study on acceptance and commitment training, and social change modelto examine the extent soft skills can be effectively fostered in teacher-education.We used paper questionnaires and performed data analysis usingSPSS and SmartPLS software in aquasi-experimental procedure with a population of 722 pre-service teachers.In all semesters scores on the soft skills scales showed significant improvement over the course of the semester, with moderate to large positive effect. Experienced and novice pre-service teachers were compared. Importantly, it was found that the effect of the course fostering was successful across participants as analysis did not show any significant difference between the participants in the soft skills self-rated scales. Partial least square structural equation modelling analysis revealed interestinglythat all the pre-service teachers gained soft skills in levels that were both moderate and significant.Implying the strength of the soft skills curriculum and the credit-hours allocated must be examined.

Keywords: *soft skills, teacher education, pre-service teachers, partial least square structural equation modelling, Nigeria.*

Introduction

If the charge of academia is to holistically prepare students to be successful contributors to the advancement of society, supporting them in acquiring effective soft skills as part of their teacher education requirements is essential. To be effective, systematic evidence-based personal development approaches that can be integrated into the academic mission and teacher education courses may prove most promising for this advancement. In addition, students can use thesoft skills they had developed in teacher education courses within their discipline-specific courses and future careers, and as a result, they will be better prepared for diverse and unexpected situations within and beyond their college years.

There is no gainsaying that graduates nowadays are hired based on their soft skills rather than hard skills,even in the teaching field. Unlike hard or technical skills that are specific to the work context, soft skills can be applied in any work setting. Because of their applicability in any setting, soft skills are taking a prominent role in the workplace as technology continues to shape and change the jobs that are possible (Mitchell, Skinner & White, 2010).

The term ‘soft skills’is used to describe personal transversal competences like innovation, coping skills, collaboration, communication, accountability and other behaviours that promote relationships and successful living (Melser 2019). In the field of teacher-education, experts explain that to increase students’ academic achievement, teachers need to be proactive, work with others, communicate lessons with clarityandbe innovative and adaptable to any classroom setting (States, Detrich & Keyworth 2018; Hattie,2015).

Rationale for soft skills teaching.

A school setting normally has students, teachers and curriculum requirements, and its success ultimately depends on the capability of the teachers. Teachers are therefore key factors in education success. Previous research shows that in the past, teachers’ employers were mainly concerned about teachers’ hard skills (content and pedagogy), but this notion has change, and soft skills arenowconsidered important owing to their effect on students’ academic achievement (Hattie, 2015). Cimatti (2016, p. 99)posited that ‘soft skills predict success’. Similarly, Robles (2012) explained that soft skills havea strong correlation with workplace and future life success. Drawing on this perspective, there is a cause–effect correlation between soft skills and personal and professional achievement.

Soft skills are connected to all disciplines, and they are not subject specific but are necessary personal transversal competences of the teacher. Grisi (2014) concurred to this view by asserting that 'soft skills operate in a direction that is rather separate from the role of the individual and go beyond the strict demands of the profession'. More importantly, the famous educationist John Dewey, in his book *Human Nature and Conduct*, considered this set of skills as the dispositions that the person expresses as specific ways of acting in different challenging situations. The fact that the quality of a student's academic achievement strongly depends on teachers' soft skills (Hattie, 2015; Kautz, Heckman, Diris, Ter Weel & Borghans 2014) makes researching the soft skills of preserviceteachers important.

Presumably, focusing on preservice teachers' soft skills would generate a chain of impacts, andit would impact teaching job performance, impact students' academic achievement and have a long-term effect on educational quality and on the country's economic development. Focusing on preservice teachers would be rewarding because a recent review of literature on teacher education (Barnes, Boyle, Zuilkowski, Bello 2019) found that,in Nigeria despiteahuge investment on in-service teacher preparation, overall secondary students' academic achievement has been mixed.

In Nigeria, this mixed results in academic achievement add to the daunting challenges facing education. It is common knowledge that the country has huge challenges such as insurgency, farmer/herders' clashes, banditry, and thuggery. UNESCO (2014) reported that Nigeria hasveryserious shortage of trained teachers, and it struggles with education quality. Therefore, new initiatives for government attention to focus on soft skills of prospective teachers have been one remedy suggested for these challenges.

As such, teacher education programs at the university level implements the soft skills course. The strength of the course is that the course consists of twocompulsory courses with 2-credit hours each, (the course is titled as *EDU205: Curriculum instruction I and EDU305: Curriculum instruction II).* The course curriculum instruction is a compulsory second- and third-year undergraduate course.EDU205 is of introductory nature, it is designed to give an insight into the psychological, social, and cultural perspectives in relation tothe teaching issue, it is prerequisite to EDU305. More details on the courses design will be given under Conceptual framework.

Similar programs are implemented at the Nigerian certificate in education level (NCE). Despite its successful implementation at that level, preservice teachers in Nigeria

receive limited professional training at the NCE level (Barnes et al., 2019). This may be the case with undergraduate students of bachelor's degree in education. This study intends to provide a view of pre-serviceteacher (PTs) soft skills experienced throughparticipation in courses designed to equip them with soft skills. The study presumes that this would further the relevance attached to soft skill teaching within teacher education programmes.

Soft skills curriculumfostering

The term *soft skills* is catchy but difficult to define, as "no formally agreed upon, universal set of soft skills exists." (Matteson, Anderson & Boyden 2016, p. 74-80). To meaningfully define *soft skills*, Chamorro-Premuzic, Arteche, Bremner, Greven & Furnham(2010) started by defining a skill as "the ability either to perform some specific behavioral task or the ability to perform some specific cognitive process that is functionally related to some particular task." They suggest that a skill has three components "(1) a domain-specific knowledge base, (2) the means to access that knowledge, and (3) the ability to take actions or thoughts using that knowledge to carry out a task." In conclusion they define *soft skills* as "nontechnical and not reliant on abstract reasoning, involving interpersonal and intrapersonal abilities to facilitate mastered performance in particular contexts." Their list of soft skills includes "clear communication and meaningful feedback, resolving and/or managing conflicts, and understanding human behavior in group settings."Roos et al. (2016) uses the term to refer to skills that are hard to observe and evaluate because they cut across disciplines.

In the field of teacher education, States et al. (2018) used the term to refer to non-technical skills that are involve in teaching learning process. Melser (2019) described soft skills as personal attributes that enable teachers to interact effectively and harmoniously with students and other stakeholders in education, she demonstrated that soft skills enable teachers to communicate, manage oneself, managing other people and managing innovation or change. In his seminar article on soft skills, Burns (2018) shows that learning about soft skills in the universities can bolster student's capacity in coping not only with the demands of their work but also with other life challenges.

Pursuing's to the objectives of teacher education, Nigeria develops teacher education curriculum to keep pace with developments through educating individuals to be skilful in every ramification. The teacher education learning outcomes include both hard or technical skill (subject matter knowledge, pedagogical knowledge) and soft skills. For example, pre-service teachers are expected to graduate having mastered competences in professional

subject matter, pedagogy, along with communication skills, conscientiousness, adaptability, creativity and innovation (FGN, 2013).

The challenges for this study are that various education stakeholders (students, school administrators and even parents) have expressed concern over soft skills of teachers (Lamb, Maire, Doecke 2017; Uko, Umosen & Caleb 2015), in addition soft skills components of teacher education is not often recognized as an important course within the field of teacher education (States, et al. 2018).This is quite unfortunate since it negates the focus of sustainable development four (SDG-4) which is to ensure that all students have the benefit of learning under qualified, professionally trained and well supported teachers who can ensure that the students get a better understanding of the contemporary society.

In recent years, there has been few studies that show considerable interest in soft skills. Washor (2015) examine soft skills of intern's students, he found that participating in internship account for 27% of variance in soft skill indices. Roos, Lennox and Botha-Ravyse (2016) found that after controlling for time, outdoor educational adventure explained 30% of variance in education students' soft skills gained. Ihtiyaroglu (2018) found a weak relationship on preservice teachers' satisfaction with the professional teaching skills gained at faculty of education. Tang (2018), findings revealed that soft skill attributes accounted for an average percentage of the variance in soft skills in graduates. Ball, Joyce and Anderson-Butcher (2016) found that leadership and responsibility, working with others, and adaptability moderately correlated in explaining the total variance in the student's level of 21st century life and career skills.

Teachingsoft skillsatthe university level

More recent evidence (Dimitrova, 2018; Cinque,2016) reveals that the priority attached to teaching soft skills varies between countries. Althougha few countries considered it compulsory, others offered it as an extracurricular activity. In his review of documents on soft skills, Fernando (2016) proposed the need for higher institutions to implement soft skills throughacurriculum that prepares students for active participation in the workplace since employers need workers that are proactive and adaptive andthatcan take responsibility for every action. In Nigerian universities, the relevance attached to teaching soft skills also varies between faculties. Althoughsome faculties considered soft skill courses as mandatory, others offered it as a non-credit unit course. For instance,thefaculty of education considered it a compulsory full-semestercredit-earning course. This has complied with one of the methods of

teaching soft skills found in Cimatti (2016). In Cimatti (2016), the 'Tuning' project recommends that soft skills can be best taught at the university level using the following alternative methods:

> 1)Integrating soft skills in different degree subjects, 2) conductingweekend seminars and workshops aimed at teaching different soft skills, 3) devoting two weeks at the beginning of each semester to train soft skills, 4) setting up different subjects for each soft skill and integrating them in programmes with different teachers who are only dedicated to the teaching of soft skills and5) dedicating a full semester in the degree to train some specific soft skills (Cimatti, 2016, p. 104).

Soft skill development is valued in teacher-education programmes in universities in Nigeria. The Nigerian national policy on education stipulates that all teacher education training institutions implement training programmes that are consistent with the nation's mission and vision for teacher education, including learning outcomes. The mission of teacher education in Nigeria as in other nations stems from the nation's philosophical goals. The purpose of teacher education is to 'provide teachers with the intellectual and professional background for their assignment'(FGN, 2013). This statement clearly indicatesthatteacher training programmes have a duty of transmitting soft skills to PTs.

The present study assessed PTs' soft skills in order to investigate how their soft skills developed as a result of their participation in a soft skill course during teacher-education programme related to teaching performance success. Peterson and Seligman (2004) reported on character *strengths and virtues* and argues that "to be understood is as fulfilling asto understand. Social intelligence allows the uniqueness of everyone to be acknowledged."Being treated as an individual" is a critical feature of excellentschools, and social intelligence on the part ofteachers makes this treatment possible".In the sub-section that follows we described the curriculum used to model various soft skills by TEs in the universities.

Theoretical Underpinnings

Nigerian national policy on education stressed the cultivation of soft skills (conscious behaviour skills, collaboration skills, adaptability skills, innovative or creativity skills and skills for communicating with others) among PTs. The policy believes that PTs' exposure to soft skill knowledge would facilitate their ability to teach successfully. This development makes focusing research on soft skills in teacher preparation in Nigerian universities very

important. Peterson and Seligman (2004), in describing prerequisites for wisdom, asserted that one's level of exposure to a knowledge context facilitates their acceptance of multiple perspectives.

EDU205;305are explicitly focused on developing skills that align with the goals of teacher-education and well-educated individuals. Table 1 outlines some of the courses content, learning experiences and teacher-education outcome goals. While this list is not exhaustive, we have highlighted main content areas including the exploration and application of personal values, consensus in group work, constructive feedback, personal awareness and openness, conflict navigation, working with diverse personality types, and mindfulness.

Table 1: *Examples of soft skills curriculum content, class activities and application*

Course Content andprocesses	*Learning experiences*
Identify and define personal values through a values sort; explore the meaning of values and share with a peer; personal written reflection on values	Develop personal, Sense of social, and academic responsibility for values-based goals with personal action specific actions; identify and define team values to guide goal setting related to teaching
Define a consensus; put it into action through a group activity using personal values as the basis for decision making	Interpersonal skills, including teamwork and collaboration; get along with different kinds of people; civic knowledge and engagement; time management
Discuss the definition and value of feedback; explore constructively giving and receiving feedback	Oral and written communication; ability to bride cultural and linguistic barriers; receive student feedback on assignments; provide feedback to the student on the course
Learn to be intentional and conscious in observation, flexible in response to change, and proactive to influence situational outcomes	Enthusiasm for learning on a continuous basis; sense of responsibility for personal and collective action; sense of professionalism; brainstorm possible responses; consciously take actions
Practice classroom conflict navigation styles	Sense of responsibility for personal actions; sense of professionalism; Apply different conflict navigation styles to a conflict situation;

	reflect with a peer on real-life application practice
Personality type exploration through a personality matrix; explore constructive and nonconstructivebehavioral patterns; experience working with similar and different personality types	Sense of responsibility for personal actions; sense of professionalism; get along with different people
Expose and provide opportunity for mindfulness practices in group and individual settings; personal exploration and reflection on personal mindfulness experiences	Sense of responsibility for personal actions; foundations and skills for lifelong learning

Adapted from (National Policy on Education, 2013;Whitehall, Hill, Yost, & Kidwell,2018; Tackman et al. 2017)

EDU205;305 is based on social learning theory and social change model both of which target skills essential to developing soft skills: Research (Rao, 2018) has indicated that social learning theory and social change model among others are relevant in soft skills assessment and this seems to be a useful approach since both theories are concerned with social dimensions to learning, social inputs and social outputs. Social change model has been used as a model for leadership development (Whitehall et al. 2018), For example, SCM emphasizes that true leadership requires awareness of personal strengths, challenges, and values; is a values-based process rather than a titled position; and requires a strong personal commitment. Both models emphasize commitment to values and acting in alignment with those values. The course content of EDU205;305 targets conscious behaviour skills, collaboration skills, adaptability skills, innovative or creativity skills and skills for communicating with others. Developing soft skills in students provides them with opportunities to gain skills in getting along with a variety of people, a sense of responsibility for personal action, and enthusiasm for continuous learning (Aloi et al., 2003; Gaff, 1989). Given the combination of these two models in the course content, we expected that students would show positive changes in the soft skills scales.

Effect of previousexperience on students learning

In the literature, Chan, Lo, Ng, Cheung and Kiang (2019) showed that several research evidence revealed prior knowledge is correlated to present and future learning. They

further explained that new and subsequent learning will be difficult when prior learning does not scaffold it. In their literature review Chan et al (2019, p 137) concluded that 'a prior knowledge base is a key to further development and consolidation of generative knowledge base'. Since 1959, Ausubel said what the learner already knows is an important factor in future learning.

In 1997, Madigan found a direct positive effect on course taking in high school and students' proficiency in science. Fayowski, Hyndman and MacMillan (2009) found that prior course work in calculus at the pre-degree course improves student's subsequent achievement in calculus at the university level. Taking together, these studies suggest that prior course taking is an indicator for higher achievements in subsequent learning. Contrary to this position, Chan et al (2019) found that all students showed significant improvement irrespective of their prior exposure to general education course. Put in another way the study revealed that the students benefited from the course in the same way. This result is typical of Sugiharto, Corebima, Susilo and Ibrohim. (2019) who found that semester difference does not have any significant effect on the level of students' readiness to adopt to the new teaching/learning strategy referred to as blended collaborative problem-based learning. These and many other evidence showed that there is considerable controversy surrounding student's prior knowledge.

The popular believe is that students without previous knowledge of '*curriculum and instruction'* course, will have problems in grasping the concepts because of the unfamiliar environment they find themselves. However, experts say this difficulty will diminish when the processes of delivering course content are efficiently handled, in other words, teaching approaches can mediate prior learning. Gauci, et al (2009) as cited in Chan et al (2019, p. 156) posits 'that by employing a personal response system in large-group lectures, even students without prior knowledge of the subject matter can benefit significantly'.

Guiding research questions and hypothesis.

Based on the course content and the objectives of the course, the present study revolves around the following research questions and hypotheses:

1. Composite soft skills scores will increase significantly from pre-test to post-test
2. To what extent is there statistical difference in self-rating of the soft skills scale between experienced preservice teachers and their counterpartswho are novice preservice teachers?

3. What is the extent of the soft skills gained by participants having completed the soft skills courses at the university level?

Method

Participants.

The experimental study was conducted on faculty of education students(PTs) in the academic year 2017/2018 and 2018/2019 at University of Jos, Nigeria. It was based on the experiencesof PTsina 'curriculum instruction' courseswithin the two semesters. EDU205;305 coursesare compulsoryteacher education courses designed to inculcate substantial soft skills to PTs.We invited all the students enrolled in the courses during the two consecutive semesters from semester ii 2017/2018 to semester i 2018/2019 sessions to participate in the evaluation. Total enrolment in the class during those semesters was 805 and our total sample was 722. Data collection was conducted usinga paper questionnaire rated onaLikert scale at each session.Students ranged from twenty-two to fifty years of age, with a mean age of 26.56 years; 95 percent were in the traditional university age range of eighteen–twenty-nine years. Sixty percent of students identified themselves as being female; 40 percent, as male. Almost 46 percent (45.6 percent) were continuing students. The mean cumulative GPA of students at the time they were taking the class was 3.26 on a 5.0 scale.

Instrumentation.

The soft skill scale (SSS) was adopted fromAworanti, Taiwo and Iluobe (2015),originally developed by Kechagias (2011)to carry out measurements and assessment of soft skills. This scale was found appropriate because it fit into the study, it has been successfully used by previous researchers on soft skills,and it has particular been used in Nigeria hencerequired minimal to no alterations. SSS consisted of 50 indicators assessing five underlying sets of dimensions—commitment to duty, teamwork, communication, lifelong learning and creativity/innovation—on five-point Likert response scales with categories IP = Inadequately Prepared (1 score), FP = Fairly Prepared (2 score), SP = Somewhat Prepared (3 score), WP = Well Prepared (4 score) and AP = Adequately Prepared (5 score). A higher score indicates that PTs were more adequately prepared by their TEs on the measure during their undergraduate teacher training. Sample items include'punctuality at work', 'loyal to duty', 'paying attention' and'keeping to deadlines'. A confirmatory component analysis reveal that the hypothesized factors fits well with the data, the existence of a good convergent validity (indicator loadings >0.70, indicator reliability >0.40 and AVE>0.50) and internal consistency

reliability (composite reliability >0.70 and Cronbach's alpha >0.70).Heterotrait-Monotriat ratio results are below the conservative threshold of 0.85-0.90. (Hair et al 2018). The average Cronbach's alpha across two semesters was 0.91.

Procedures

Course Delivery

In the 2017/18 and 2018/19 academic years, each class was taught by an individual instructor at a time and consisted of 120 students. Due to high demand for the course, we team-taught classes by sharing topics to accommodate more students while preserving the content of the course. Specifically, much of the course content was delivered through voiced-over PowerPoints lectures allowing instructors to spend class time on experiential learning activities and application practices. The team-teaching required a great deal of coordination, and it took instructors time to adjust to the team teaching, and new delivery format.

Evaluation Procedure

Evaluation consisted of a pre-test survey at the beginning of the semester and a post-test survey at the end of the semester. In all semesters we administered self-report, paper-and-pencil surveys in class. Students were not offered any incentive to participate in the study and were told that their involvement in the study would not affect their course grade in any way. The survey took about fifteen minutes to complete.

Design

Because of the two semesters in which the courseswere delivered, we conceptualized this study as apre-test-post-testand course exit survey design, with the final post-test as the "course exit" series.

Results

Findings related tohypothesis one

Table 2: Semester-by-Semester Changes in Soft skills Scale Scores from Pre-test to Post-test

Semester	**n**	**Pre-test**		**Post-test**		**t**	**p**	**Effect size**
		Mean	**SD**	**Mean**	**SD**			
II(2017/2018)	72	3.73	0.35	3.93	0.41	8.74	<0.001	0.51
I	71	3.68	0.3	3.81	0.4	5.25	<0.00	0.34

(2018/2019) 2 6 1

*Note:*Semester I and II mean scores are the average score across subscales of the soft skills scale

We conducted paired *t*-tests to measure changes in students' soft skills from the beginning to the end of each semester. In all semesters scores on the soft skills scales showed significant improvement over the course of the semester, with moderate to large positive effect sizes ranging from 0.30 (p = .001) to0.51 (p< .001) see table 2.

Findings related to question and hypothesis two

Results in Table 3 shows some measures of central tendency and dispersions for the six subscales scores and the overall score for each category. Results revealed that commitment to duty subscale has mean of 3.113 with standard deviation 0.505 for students without prior teacher education group, mean of 3.301 and a standard deviation of 0.487 in the continuing group. Secondly, lifelong skill subscale revealed a mean of 3.333 and a standard deviation of 0.423 in the new student's group while a mean of 3.378 and a standard deviation of 0.411 was yielded in the continuing student's group. The third subscale of communication showed a mean of 3.040 and a standard deviation of 0.533 in the new student's group whereas the continuing students group yielded mean of 3.199 and a standard deviation of 0.445. The fourth which is the creativity subscale yielded the following means and standard deviations (mean = 3.611, standard deviation = 0.341) and (mean = 3.478, standard deviation = 0.445) in the new student group and continuing student group respectively. Lastly, teamwork subscale in the new student's category had a mean of 3.199 and a standard deviation of 0.420. in this same subscale the continuing students group yielded a mean of 3.330 and a standard deviation of 0.416.

The composite scores for the entire soft skills scale revealed a mean of 3.289 in the new student's group and a standard deviation of 0.360, in contrast, results revealed mean of 3.362 and standard deviation of 0.336 in the continuing student's group.

Table 3.*Means and standard deviations of five subscales and total scale*

Subscale/Group	**n**	**Mean**	**S.D.**	**95% Confidence Interval for Mean**	
				Lower Bound	**Upper Bound**
Commitment to duty					
novice	393	3.113	0.505	2.963	3.168
experienced	329	3.301	0.487	3.209	3.327
Lifelong skill					
novice	393	3.333	0.423	3.254	3.431
experienced	329	3.378	0.411	3.3	3.567
Communication					
novice	393	3.04	0.533	3.042	3.336
experienced	329	3.199	0.505	3.187	3.3
Creativity					
novice	393	3.611	0.341	3.56	3.704
experienced	329	3.478	0.445	3.502	3.773
Teamwork					
novice	393	3.199	0.42	3.147	3.321
experienced	329	3.33	0.416	3.265	3.43
Composite score					
novice	393	3.289	0.36	3.228	3.304
experienced	329	3.362	0.336	3.304	3.403

Results in table 3 showed that at least there was difference in group means for each dimension and the composite score, but the result did not signify which group means differ significantly. To clarify this, further analysis was conducted, specifically, post-hoc analysis was conducted. Full measures from the post-hoc analysis with respect to this hypothesis are found in table 4. The results revealed that no statistically significant differences were found between any of the dimensions as well as in the composite score when the two groups were compared. The significance values ranged from .069 to .753 with the significance level set at .05. The dimension of commitment to duty correlated most closely with a significance level of .069, followed by that of communication with a significance level of .096. Next was teamwork with a significance level of .100 and the least statistical difference occurred

between the group scores for dimensions of creativity at .620 and lifelong skill at .753. The composite Score score for the combined dimensions resulted in a less than significant difference at .226. Thus, hypothesis two, which estimated significant differences between new students' group and continuing students' group, was not retained.

Table 4*Tukey post-hoc test comparing mean, standard error, and significance between new and continuing students*

Subscale	**Mean Difference**	**Std. Error**	**Significance**
Commitment to duty	.153	.069	.069
Lifelong skill	.040	.056	.753
Communication	.143	.069	.096
Creativity	.049	.052	.620
Teamwork	.121	.059	.100
Composite Score	.077	.047	.226

* Significant at the 0.05 level

Findings related to question three.

Our knowledge from significant test (t-test and turkey post-hoc) of hypothesis one and two is largely based on which groups showed significant difference in the self-ratings of the soft skills scale but failed to provide adequate proof of the magnitude of soft skills gained. A more practical solution for this problem is to do partial least square structural equation modelling (PLS-SEM). Research question three was on the magnitude of composite soft skills gained at the point of exiting from in the courses. To evaluate the magnitude of the composite soft skills gained, PLS-SEM was used. We did PLS-SEM techniques using a commercially available smartPLS version 3.0 softwareproduct downloaded from www.smartpls.com based on the recommendations of Hair et al (2018). The advantage of using this procedure is that it delivers latent variable scores, thereby avoiding the problems associated with complex models with many variables.

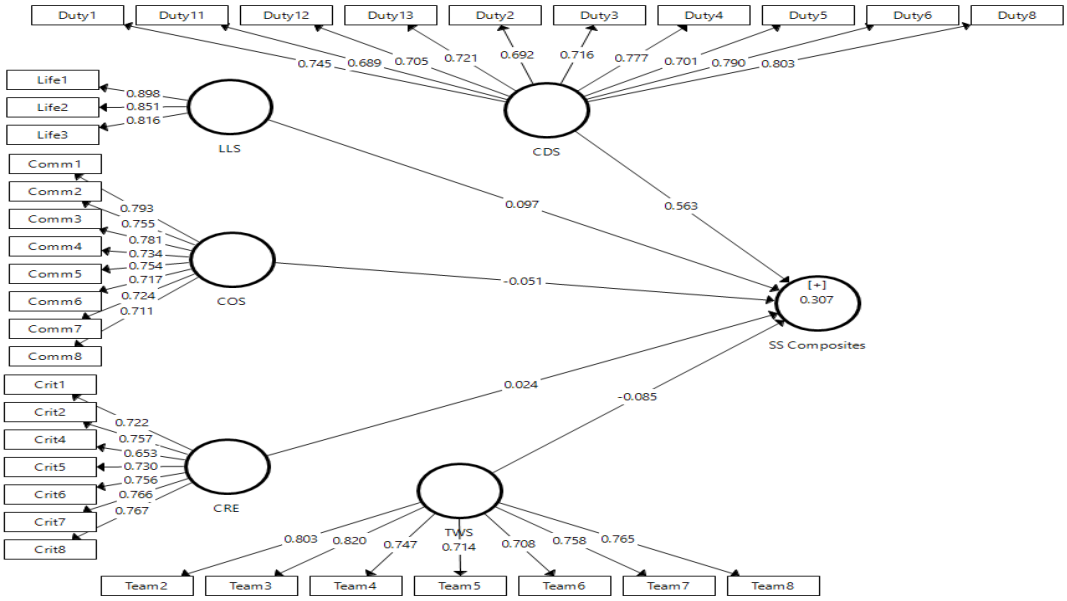

Figure 1. PLS-SEM results

Note: *SS: Soft skills; CDS: Commitments; LLS: Lifelong learning; COS: Communication; CRS: Creativity; TWS: Teamwork.*

Structural model assessment.

We found from the PLS-SEM result that the attribute CDS (β =0.563, f^2=0.157, 95%CI [0.46, 0.66], p=0.00) has the strongest effect on composite soft skills, followed by LLS (β =0.097, f^2=0.008, 95%CI [0.02, 0.18], p=0.017).The effect of CRS was (β =0.024, f^2=<0.001, 95%CI [−0.091, 0.138], p=0.676), andthe effects of COS and TWS tilted downward with effect sizes (β=−0.051, f^2=0.001, 95%CI [−0.156, 0.045], p=0.322) and (β=−0.085, f^2=0.006, 95%CI [−0.173, −0.004], p=0.045), respectively. Bootstrapping results substantiated that the effects of CDS, LLS and TWS on composite soft skillsweresignificant at 0.05. COS and CRS effects were not significant.Our analysis revealed that participants magnitude of composite soft skills gained was 30.2% (R^2 = 0.302) seefigure 1.

Considering the critical role of soft skills, the effect of the various entities indicated that they might not be enough in meeting the demands of situational appreciation of classroom life. Specifically, it revealed that they lack the skills of communication and creativity (coping), and they need more guidance to develop more collaborative skills, lifelong skills and commitment to duty skills.

Discussion

Soft skill is generating a lot of interest in the workplace and schools. For example, experienced teachers especially teachers already on the job must balance between coping with multidimensionality's in the classroom and teaching the content. However, limited studies especially on pre-services teachers exist, hence our study was designed to investigate the magnitude of soft skills developed by pre-service teachers from participating in their teacher soft skills courses (EDU205;305). One key thing about these courses are that the courses are theory base courses and teacher educators are the primary facilitators of the course within a weekly two-hour lecture for one semester each.

The purpose of this study was to explore whether soft skills can be effectively fostered in a teacher-education course. To this end we evaluated the course's effects on students' composite soft skills gained leveraging of social change model and Vygotsky's theory of meaningful learning. The results over two semesters suggest that preservice teachers' soft skills may be improved through participating in a theory-based course designed to foster growth in these areas. This study extends the current literature by demonstrating that participation in this theory-based teacher-education course was related to social outcomes that support students in being successful in college and beyond.

Taking cues from the acceptance and commitment training and social change model, our first hypothesis was that scores on the soft skillsscale would increase significantly from pre-test to post-test. There was strong support for this hypothesis: in allthe two semesters there were moderate to large significant increases in soft skills scales. While our hypotheses were supported, they refute findings in a recent study of 2,095 students transitioning to college, Conley and colleagues (2014) showed that first-year students experienced significant decreases in emotional well-being over the course of a semester.

Using the lens of social learning theory, social change model as well as Ausubel's theory of meaningful reception learning, the focus of our study was also to examine the experiences of pre-service teachers with their soft skills teacher education. Another research objective for the study was to determine the place of previous knowledge on their responses on the soft skills self-rating scale, since participants were either continuing students or new students.

Taking strategic advantage of Ausubel's theory that emphasizes the role of previous knowledge in learning especially in the school setting, we hypothesized that participants without previous soft skills knowledge will report significantly different scores than NCE

holders. The place of previous knowledge in learning has been investigated (Madigan 1997; Favowski 2009; Brungardt 2009). Despite this interest, no one to the best of our knowledge has studied pre-service teachers' soft skills in the study area. More recent evidence (Chan et al 2019) reveal the influence of prior knowledge on university student's comprehension of new concepts in general education class.

Our study results especially question/hypothesis two revealed that at least there was difference in group means for each test dimensions and composite soft skills score. However, further analysis revealed that there was no statistical difference found between any of the tested dimensions as well as the composite score when the two groups were compared. This result suggests on one hand that the soft skills curriculum at the university does significantly influences soft skills of pre-service teachers. On the other hand, the result may suggest that soft skills curriculum at the NCE level does not significantly had impact on its products, a discussion of this falls outside the scope of this paper. Our results are consistent with previous results, Brungardt (2009) found no significant differences detected between tested dimensions among students with no leadership education and their counterparts with leadership education. Similarly, Chan et al (2017) reported there was no statistically significant difference in student's perception about their general education courses between students who lacked relevant prior knowledge while attending the course and students that had related prior knowledge.

The third objective was to investigate the cumulative extent of soft skills gained at the university.Our study results from PLS-SEM showed the coefficient of determination of composite soft skills construct was moderate. The moderate variance was explained by the various test dimensions of soft skills. Thus, our results suggest that participating in the two teacher soft skills courses yielded moderate (30.7%) level of soft skills gained. This value correlates fairly well with (Washor 2019; Roos et al 2018; Ihtiyaroglu 2018; Tang 2018; Ball et al 2018) and further support the idea of Vygotsky that learning could be through interactions with others in a context. Hence it strengthens the idea of exposing pre-service teachers to soft skills education during teacher education.

Implications

The results of the current study are particularly promising when we consider that college students are increasingly susceptible to teaching problems. The objectives of EDU;205;305 are consistent with the teacher-educationgoal. Our results highlight the importance of a

teacher-education soft skills curriculum that provides cohesion for the context of the whole student and a bachelor's education degree, where students learn the skills necessary to effectively apply and translate their major course specializations. Furthermore, the course is highly supported by the university administration, providing momentum for implementing a more systemic approach to preservice teachers' soft skills.

The underpinning of soft skills curriculum and the ultimate aim of teacher-education is the development of skills that students will need to navigate college, be successful in work, contribute to their communities, cope with life's problems flexibly, and be guided and sustained by a set of personal values. These are the critical skills that many faculties and most college administrators, policy makers, and employers believe we should be teaching our students.

In the current study, we focused on soft skills (i.e., communication, commitment, creativity, lifelong and teamwork) that are foundational to the goals of teacher-education and that were consistent with our theoretical base. It remains to be seen how these outcomes translate to student success in college and in the workforce. In future studies we will follow students forward to examine effects of the course on their implementation of secondary education level curriculum since this is their immediate responsibility as they graduate.

Conclusion

Taken together, our findings from this study would seem to show that Nigerian Universities faculty of education should consider a review of the teacher soft skills curriculum with possible innovations since the magnitude of soft skills gained by pre-service teachers was only moderate as against been substantial. The strength of the soft skills curriculum and the credit-hours allocated must be examined. Currently the courses have two credit-hours each and all are theory-based courses, perhaps the credit-hours should be increased to four credit-hours each, appropriate teaching methods should be considered, and situational judgemental test (SJT) could be used in the soft skills curriculum to nurture pre-service teachers as recently(Melser, 2019; Macqual, Umi & Hutkemri 2020) highlights that teaching soft skills may make pre-service teachers to be better prepared for the task ahead of them.

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