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# MENTORSHIP IN TECHNICAL UNIVERSITIES: DOES EARLY MENTORING FOSTER NEW FACULTY PROFESSIONAL DEVELOPMENT?

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## ABSTRACT

The study examined the effect of mentoring on the professional development of new faculty members in six selected technical universities in Ghana. The variables analysed under new faculty professional development comprised of teaching skills, research output, rapid promotion and community services. The target population for the study comprised 200 new faculties. The census approach was used to enumerate all the members within the study population. The study employed the descriptive research design to describe the state of affairs in these technical universities, and it was cross-sectional in nature. Data was collected through a survey with a Faculty Mentor Questionnaire which was measured on a six-point Likert scale, and was analysed with descriptive and inferential statistics. Data was presented in tables. The study found that mentoring significantly and positively affects all the variables of new faculty professional development analysed. The study recommends that, Heads of Technical Universities, Deans and Heads of Departments should strongly advocate for and ensure the enforcement of mentoring policies and practices to help support the professional development of early faculties in their current and future job assignments.

**KEYWORDS:** Mentoring, Professional development, Technical Universities, Teaching skills, Research output, Community services.

## INTRODUCTION

Globally, mentorship in academic institutions is considered to contribute significantly to the efficiency and effectiveness of faculty and the institution as a whole. Newly appointed faculty who are paired with experienced senior members acquire skills and knowledge through guidance, counselling, and role modelling. The role and importance of relationships in mentorship make it a viable training option for the transfer of skills that are essential for performance (Cherono et al., 2016). Faculty members play very important role in nurturing the human resources of a nation. They have the mandate for the performance of three basic activities, including teaching, research and community services (Ekpoh &

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Ukot, 2019). These enormous responsibilities need to be handled through the early stages to the later pinnacles of the profession. Stress factors such as anxiety, expectations of stakeholders, lecture hall discipline and management, time management, grading of students, writing of research papers among others are constantly juggled with lecture room performance. In the early stages, management of all these challenges require soft coping skills which are hardly gained through formal training. A training mode such as mentorship provides guidance, coaching, and support for the inexperienced faculty. With an emphasis on the relationships that are formed, sharing of experiences and better ways of handling issues are well taught and assimilated and transferred to the job. Thus, mentorship becomes a major developmental tool for early faculty members.

The inability of new faculty members to cope with the enormous demands of their profession have led to high rate of attrition (Kutsyuruba & Treguna, 2014). Faculty members are faced with high demands as a result of the diversity of the student body, accountability for performance appraisal, and the expectation of stakeholders for the production of relevant graduates (Dankwa & Dankwa, 2013). As a result of the growing numbers of new faculty joining technical universities, there is the need to look at a means of reducing these demands. Lunsford et al. (2013) noted that mentorship is a promising solution to help reduce the pitfalls of new faculty. They believe that to curb the high attrition among new faculty within the first few years, mentoring is critical, especially during the induction process.

Several studies have mentioned the numerous advantages of mentorship and its established roles in employee development (Agunloye, 2013; Chen, Liao, & Wen, 2014). Dankwa and Dankwa (2014), and Anafarta and Apaydin (2016) however, observed that the growing interest in mentorship has driven a lot of research in the corporate world, rather than in higher academic institutions. This creates a contextual gap since the concept as it exists in the business world is different from academia. As a result of this apparent lack of interest from the management of universities and faculties, all the benefits of mentorship in relation to faculty development are not pursued. Studies that investigated mentorship programme for faculties in Ghana resorted to the use of the case study approach (e.g., Kumi-Boateng, 2014; Sulemana, 2019). This study however, perceives that mentorship and early faculty professional development is a national phenomenon and should therefore be explored in a wider context by using the survey methodology. This study thus investigates the dynamics of mentoring in technical universities in Ghana and its effect on early faculty professional development.

**Research Objectives and Research Questions**

In the light of the above, this study was undertaken with the following specific objectives:

1. Examine the effect of mentoring on the teaching skills of new faculty members in the technical universities in Ghana.

2. Determine the effect of mentoring on the research output of new faculty members in the technical universities in Ghana.
3. Ascertain the effect of mentoring on the rapid promotion of new faculty members in the technical universities in Ghana.
4. Investigate the effect of mentoring on the community services of new faculty members in the technical universities in Ghana.

The research questions associated with these objectives were:

1. What is the effect of mentoring on the teaching skills of new faculty members in the technical universities in Ghana?
2. Does mentoring affect the research output of new faculty members in the technical universities in Ghana?
3. What is the effect of mentoring on the promotion of new faculty members in the technical universities in Ghana?
4. Does mentoring affect the community services of new faculty members in the technical universities in Ghana?

**Overview of Technical Universities in Ghana**

Technical Universities in Ghana were first established as trade schools in the pre-colonial era. This was driven by the need for trained field men and industrial craftsmen to support the exploration of the nation's resources. Following the introduction of the Government of Ghana Accelerated Development Plan for Education in 1951, these trade schools were upgraded to technical institutes with improved curriculum. The need for technical institutes became more apparent when a greater number of skilled manpower was needed for the realization of the country's Industrial Development Policy during the post independent era. In 1960, following the industrial development policy and rapid technological progress in a broad range of areas, technical education became inevitable for the country's development. Since the technical institutions were offering second-cycle craft courses while the universities were offering higher tertiary courses, there was a gap in the manpower supply needs of the country. Subsequently, a number of the technical institutes were established to train lower and middle-level skilled manpower to fill the gap. In 1963, the technical institutes were re-designed as Polytechnics to run non-tertiary programmes.

By 1992, the Polytechnics were upgraded to tertiary status based on the Polytechnic Law (PNDCL 321), and in 1994, had started running Higher National Diploma (HND) programmes (Dwomoh & Luguterah, 2020). Thus, the Polytechnics were given the mandate to provide tertiary education, through full time courses in the fields of manufacturing, commerce, science, technology, applied social science, applied arts, etc. Additionally, the Polytechnics were to stimulate the study of technical subjects at the tertiary level, while creating the environment and providing opportunities for

development, research and publication of research findings, and to award certificates and diplomas as may be agreed upon by their Councils in collaboration with the National Accreditation Board and National Technical and Professional Examinations Board.

In spite of the mandate given to Polytechnics to run tertiary programmes and award certificates and diplomas, they were not attractive as many senior high school graduates preferred to enrol in the existing traditional universities than the Polytechnics. As a result of this problem, couple with the need for government to increase access for technical and vocational programmes and to make it more attractive for senior high school graduates to pursue these programmes, the government laid a bill before Parliament and passed the Technical Universities Act 922 to convert Polytechnics to Technical Universities. In 2016, the Technical Universities Act 2016 (Act 922) was passed by the Parliament of Ghana to provide the legal framework to undertake the conversion process. By 2016-2017 academic year, ten Polytechnics have been converted to Technical Universities. The main objective of these technical universities is to provide higher education in engineering, science and technology-based discipline and vocational education and training, applied arts and related disciplines. Currently, technical universities are running undergraduate programmes, with one, running postgraduate programmes in engineering and applied science related disciplines.

## LITERATURE REVIEW

### *Theoretical Framework*

The theoretical basis for this research is developed from the Kram's mentor role theory (1985). Her seminal work provided that mentoring is a developmental relationship which focuses on the provision of support and encouragement that enhance learning in the preparation for advancement in an organisation. Kram (1985) postulates two functions that exist under the mentoring relationship; namely, career function and psychosocial function. While the career function role provides professional support to the new faculty in areas of enhanced teaching skill, quality research, rapid promotion, lecture hall management, etc, which are geared towards career growth and advancement, the psychosocial function is intended to assist the new faculty to improve their sense of competence and effectiveness through progressive communication between the mentor (senior faculty member) and the mentee (new faculty member). This study believes that, with well-established mentoring relationships, geared towards support and role modelling by senior faculty members of technical universities, new faculty members will have chances to develop with their career in terms of improved teaching skills, higher research output, rapid promotions and enhance community services.

### *The concept of Mentoring*

Naris and Ukpere (2010) define mentoring as a process whereby a senior staff member assists a junior member to understand the code of behaviour within academia and further supports and encourages

them in developing a career as academics. Schwerdtle, Morphet and Hall (2017) also define mentoring as an intentional relationship that is primarily focused on developing the capabilities and interpersonal relationship of a relatively inexperienced person (mentee) through interactions and reflections which are intended to transmit knowledge, organisational culture, and experiences. Mentoring is described by Kearney et al. (2018) as a process in which an experienced individual helps another person develop his or her goals and skills through a series of time-limited, confidential, one-on-one conversations and other learning activities. According to Siengthai, Pila-Ngarm and Sorakraikitikul (2020), mentoring is seen as a process whereby an experienced senior faculty member helps to develop a less experienced junior faculty member. In this relationship, the experienced senior faculty member (mentor) guides, advises, inspires, challenges, corrects and serves as a role model to the less experienced junior faculty member (mentee) ostensibly to help develop the professional and academic career of the mentee. The mentor who is more knowledgeable, experienced, and highly proficient faculty, works closely with the newly recruited faculty (mentee) initially, but as time goes on, the closeness gradually reduces as the novice faculty becomes more capable and confident on the job.

***Mentoring in Higher Educational Institutions***

Extant research has shown that mentoring is not a new phenomenon in academia, yet it is less developed in academic circles. Irrespective of the fact that mentoring is not a new concept in the academic circles, literature, however, reveals that there is a great deal of research being carried out on mentoring in the business world, as compared to academia (Dankwa & Dankwa, 2013; Anafarta & Apaydin, 2016). The apparent lack of attention in the topic may be as a result of university management considering mentoring as insignificant with the perception that most of the faculty members are already knowledgeable in the research of their chosen fields. According to Lunsford, Crisp, Dolan and Wuetherick (2013) some university management ride on the assumption that the faculty members' research supervisors already served as mentors to them during their graduate studies and there is, therefore, no need to mentor them again.

Institutions of higher learning have appreciated that mentorship can be used as a management tool to enhance new faculty personal and professional development as they move into new roles or seek to improve their career (Chang, Longman & Franco, 2014). Mentorship programmes at higher education institutions include variety of models, designed to accommodate particular circumstances or address particular development needs. Rosemary, Ekechukwu and Horsfall (2015) observed that mentoring programmes in higher educational institutions focus on providing the new and young faculty members with professional development, emotional support, intellectual community, role models, sponsorship and access to opportunities to aid their professional growth. Some higher education institutions have put in place academic mentor management committees within the education system to promote academic mentoring to aid growth in the teaching profession and equally increase quality assurance

in education. Rosemary, Ekechukwu and Horsfall (2015) further noted that the contemporary educational system having reached this level needs to embrace the concept of academic mentoring as a strategy for equipping new faculty with functional and saleable skills.

Baker (2015) posits that for mentorship to be effective in academic institutions, mentors and mentees need to regularly meet and discuss progress with mentee's work and highlight challenges and to discover strategies to overcome them. Academic mentoring needs to be carried out as soon as new faculty assumes duty, since mistakes of a faculty have far-reaching effects on students. Baker recommends that the duration of the mentorship needs not to exceed three years; meaning that the start date and the end date of the mentoring relationship should be clearly defined as soon as possible so that the mentee and the mentor will be able to plan to accomplish goals within the timeframe. Agunloye (2013) learnt that several institutions of higher learning in developing countries are faced with large student population, yet, the institutions have limited resources to provide tailor-made professional development training for faculty members in the three-essential domains; teaching, research and community services.

To provide training for faculty members in these three domains, Agunloye (2013) found that some African universities, especially in Nigeria have rolled out mentoring programmes which emphasize identification and articulation of gaps in the mentees' professional practice and prospects; identification and articulation of the strengths and weaknesses of both mentors and mentees; the development of goals and outcome expectations for each mentee in the mentoring program; clear articulation of the actions needed to achieve the goals; formal agreement of commitment between the mentor and each of their respective mentees to work on the actions; and professional development pieces of training in research methodology, pedagogy, research report writing, presentation, and publication. Kolade (2015) espoused that the kind of assistance in mentorship that is mostly sought in the institutions of higher learning is the career and personal development of mentees. This is so because mentees in the university system are mainly young faculty members who need to get to the higher pedestal in the university hierarchy with time. Additionally, Agalga and Thompson (2016) established that academic institutions in Africa mostly adopt the informal kind of mentoring for career growth and development of new faculty members.

***Faculty mentoring in Technical Universities***

In the technical universities in Ghana, there is usually a formally arranged mentorship program, where new faculty members are assigned to senior members who are of higher ages and experiences, as soon as they are engaged. It is a structured and deliberate procedure that is usually guided by policy by the technical universities targeted at new faulty members as a developmental tool. Newly appointed faculty members are paired with senior members of same or similar areas of specialisation to create a

formalised relationships geared towards the creation of an atmosphere to ensure that skills and abilities are effectively transferred for the social and professional development of the new faculty. There are layout roles, responsibilities and reporting lines that ensure that participants adhere to these rules. During the initial stages of the relationship, Mentors (senior members) frequently meet with their Mentees (new faculty) to discuss issues pertaining to the mentee's teaching skills, lecture room management, students' assessments, expected behaviours, the norms of the university as well as the expectations of stakeholders. Mentors also provide advice and guidance for mentees, especially in areas of challenging and ambiguous tasks. Some mentors are sometimes seen supervising mentee's teaching. Some also serves as co-authors for mentee's research publications. As the relationships become well established, mentees are believed to have better understanding on the operations and expectations in the university, and so the meetings turn to become periodic. Nonetheless, the mentors are always available to answer specific questions that might be posed by the new faulty. Mentoring in the technical universities is subject to periodic review. Periodically, the system requires mentors to appraise their mentees to ensure adherence to the mentoring policy.

***Mentoring and Faculty Development***

Faculty development refers to all measures put in place to expand the capacity of faculty members to function effectively in their current or future job (Dachner *et al.*, 2021). Faculty development activities include personality assessments, formal education, skills and abilities and professional relationships (Doran *et al.*, 2018). The focus of faculty development is to enhance the skills, knowledge, and ability for the current job assignment as well as future opportunities of faculty members. The importance of mentorship in faculty development has been established by authors like Dankwa and Dankwa (2013), Chen, et al. (2014), Anafarta and Apaydin (2016), and Ekpoh and Ukot (2019). These scholars believe that faculty development in the areas of mental, emotional, skillset, and social networks are important areas that could be achieved through mentorship. Mentorship is founded on building good relationships for work and non-work situations. Good relationships enhanced effective communication and positive psychology of new faculty. As a result of the positive outlook created by mentorship, top talents are attracted and retained (Hammond, Bowen & Cattell, 2016; Rekha and Ganesh, 2019).

Ponce (2018) and Weimer (2021) claim that mentorship programs go beyond training new faculty to fix specific problems. The formation of the relationships that comes with mentorship allows the mentor to bond on different levels with the mentee. This ensures sharing of knowledge and transfer of experiences consciously and through imitation. Mentorship programs ensure that key elements of the profession which cannot be taught at training sections are impacted, and positive psychological effects such as wellbeing and self-esteem are enhanced. Many educational institutions, in their quest to support the development of their new faculty put in place structures that enable them in their career

development endeavours in all aspects of their work. Some institutional mentorship programs prescribe that only new faculty should be mentored in other to help them overcome the initial challenges that confront them (Waterbury, 2015).

Mentorship programs are also seen to support new faculty in their career growth. Rekha and Ganesh (2019), describe career growth functions as components in the mentorship relationship that are part of the mentee's professional career. The authors pointed that these functions enhance career development as a result of exposure, visibility, coaching, guidance, leadership, and difficult projects. Baumgartner (2020) also describes the degree of the psychosocial function of a mentor's counsel provision, acceptance, encouragement, guidance, and being a role model worthy of shadowing and emulating. Doran et al. (2018) found that through the provision of advocacy, feedback, assistance, relevant information, counselling, and guidance, many mentors ensure the psychological wellbeing of their mentees. Waterbury (2015) argued that mentorship is ideal for faculty members who are starting a new career or improving their psychological well-being. As noted by Anafarta and Apaydin (2016), many educational institutions view mentoring as an important tool to increase the research output of newly appointed lecturers, especially in the first five years of their appointment.

Notwithstanding the benefits of mentorship enumerated by most authors, the concept is not without challenges. One of such challenges is the demanding nature of the relationship which makes it time-consuming especially for busy senior faculty. Furthermore, the high bureaucratic and hierarchical nature of academic institutions renders accountability issues in mentorship assessment which eventually leads to unproductive mentorship activities that are often left unnoticed and attended to the detriment of the institution as a whole usually in the short to medium term (Arkorful & Abaidoo,2015). Grant et al., (2020) also noted that as more and more young faculties are engaged, new faculties are not able to be paired on a one-on-one mentee-mentor relationships or are they able to have proper mentoring experience. This can be detrimental to the young faculty who is trying to understand the demands of the profession.

## RESEARCH METHODS

### *Research Design*

The study was descriptive and cross-sectional in nature. The researcher described the state of affairs of the study population without manipulating or influencing the results. A cross-sectional study is a predictive study that describes the characteristics of a population at a point in time. Data collection and analysis were done at one time and inferences about the population were made. The strategy for data collection was a survey. This strategy was adopted because it allowed for the collection of a large amount of data from the study population. Cooper and Schindler (2006) suggested that surveys are good tools for obtaining information on a wide range of topics and are relatively inexpensive. It

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enables the gathering of descriptive data and covers a wide range of topics. Even though critics maintain that the method may lead to biased reporting and that the survey method may not provide adequate information on a context, Saunders et al. (2009) recommend this strategy because the method allows researchers to collect quantitative data which are analysed using inferential statistics.

***Target Population***

Target population of the study comprised of faculty members who were engaged in the last four years from six selected technical universities in Ghana. New faculty members are presumed to be lecturers with less than five years of experience. Mentorship policies are usually designed for faculty members with less than five years of experience. These faculty members are considered as young and have young families at the time of their appointments and therefore need professional support to balance between their family lives as well as their work responsibilities. According to Anafarta and Apaydin (2016), the first five years of new faculty's appointment serve as the cultivation stage where mentors ensure the career and psychosocial development of the new faculty member. Mentoring at this stage focus on empowering the new faculty in areas of competency, identity and professional role. Table I indicates the composition of the study population. These institutions were selected because of accessibility of data.

**Table I: Composition of the study population**

| **Technical University** | **No. of New Faculty** |
|---|---|
| Accra | 45 |
| Kumasi | 40 |
| Cape Coast | 28 |
| Takoradi | 38 |
| Tamale | 23 |
| Sunyani | 26 |
| **Total** | **200** |

Source: field data, (2022)

***Sample Size and Sampling Technique***

The study initially employed purposive sampling approach to select faculty members who have been engaged in the last four years in these six selected technical universities. After getting the 200 participants who qualified for the study, the researcher employed the census approach to include all the elements in the target population. The census approach was used because the study aimed to get the views of all the members in the population. Another reason for the use of the census approach was because the population was not large enough for some elements to be sampled. One benefit of the

approach was that it allowed the researcher to capture everybody's view and experiences within the population. The method has been criticised as not being appropriate for or applicable in social research because it is costly and time consuming. Nonetheless, Kothari (2011) suggests that the census method is applicable in research situations where the population is not large enough to be sampled, where there is enough time to collect data and where there is the need for high accuracy. Jupp (2006) also recommend the census approach in social research situations where the researcher wants to collect data from every member of the population being studied rather than choosing a sample.

Data collection was done through the survey methods using structured questionnaire. A research team was constituted, comprising of the principal investigator and two research assistants (undergraduate students who have completed their programmes and awaiting graduation) who assisted in the data collection. Data collection spanned a period of six weeks. A total of 169 new faculty responded to the instrument, yielding 85% response rate. Data was tidied, edited and coded for easy analysis. Data was analysed with descriptive statistics such as means and standard deviations, and inferential statistics such as simple linear regression. The SPSS version 26 software facilitated the analysis.

***Operationalisation and Measurement of Variables***

Variables included in the study were mentoring, teaching skills, research output, rapid promotion and community services. Mentoring was operationalised as a formal arrangement where a new faulty member is assigned to a senior member for the purpose of nurturing the new member for his or her social and professional development. The study operationalised teaching skills as the degree to which the new faculty is able to effectively convey and explain academic subject matter to students. Research output was operationalised as the extent or degree to which new faculty is able to publish research article in a referred journal. Further, the study operationalised rapid promotion, as being promoted within the first five years of the new faculty's engagement. Finally, community service was operationalised as the degree to which new faculty is able to take up other roles in the university and its environment other than teaching and research, for example, being external examiners, internal or external assessors, committee board membership and editorial board membership. All the variables were measured on a six-point scale.

***Instrumentation***

The survey instrument comprised of a Faculty Mentor Questionnaire (FMQ), which was adapted from the Centre for Performance at work in the United Kingdom. The questionnaire was modified to suit the context of technical universities in Ghana. It was designed to solicit information on respondents' demographic characteristics (age, gender, marital status, and family size), and items that represented new faculty professional development (teaching skills, research output, rapid promotion and community services). Items were measured on a six-point Likert scale, ranging from one (no

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agreement), two (least agreement), three (somewhat agreement), four (agreement), five (high agreement) to six (highest agreement). The reliability of the 35 items in the instrument was estimated using Cronbach's Alpha reliability co-efficient, with a score of 0.82.

***Ethical considerations***

The study attached great importance to quality assurance in the execution of this research from the start to the finish. The protocol for the study was subjected to critical review by the Department of Business Studies of the College of Distance Education on behalf of the Institutional Review Board, University of Cape Coast. The department granted ethical clearance when it was satisfied with the standards of the procedure. Issues relating to the ethical conduct of research such as informed consent, confidentiality, privacy and anonymity were upheld. All information regarding respondent's identity and personality was treated with utmost confidentiality and was used for the sole purpose of this research.

## RESULTS AND DISCUSSION

Descriptive statistics was employed to explore the contribution of mentoring to new faculty professional development. The first professional development factor analysed was teaching skills. Evidence from the literature suggest that, when new faculty members are mentored, they acquire enhanced teaching skills. The minimum teaching skills was one, while the maximum was six (Table II). The distribution of teaching skills was negatively skewed (-4.88), an indication that mentoring contributes to the enhancement of new faculty teaching skills, with a mean of 4.51. The median teaching skills score was 5.00 with a quartile deviation of 1. Even though the distribution was skewed, a sample of 169 is large enough for the assumption of normality to be ignored. The second factor examined was new faculty research output. Research output scores varied from a minimum of 1 to a maximum of 6. The median score was four (mean = 3.87, skewness = -0.71). Another variable that could indicate new faculty professional development is rapid promotion, the literature review revealed that, mentorship could lead to career development (rapid promotion) of new faculty. With a mean of 3.73 and a standard deviation of 1.404, the minimum and maximum score between 1 and 6, mentoring is believed to have contributed to new faculty rapid promotion. One of the duties of faculty members is the provision of community services. The study finally sought to test the contribution of mentoring to new faculty respond to community services, having a mean score of 3.51 and a standard deviation of 1.5, mentoring was seen to be an important element for community service of new faculty.

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**Table II: Descriptive Statistics of mentoring and new faculty professional development**

| Variable | Mean | Median | Skewness | Std. Deviation | Quartile Deviation | Min. | Max. |
|---|---|---|---|---|---|---|---|
| Teaching Skills | 4.52 | 5.00 | -4.88 | 1.224 | 1 | 1 | 6 |
| Research Output | 3.87 | 4.00 | -0.71 | 1.301 | 1 | 1 | 6 |
| Rapid Promotion | 3.73 | 3.00 | -1.54 | 1.404 | 1 | 1 | 6 |
| Community Services | 3.51 | 4.00 | -0.11 | 1.361 | 1.5 | 1 | 6 |

Source: Field data, (2022)

In order to determine the effect of mentoring on the four components of new faculty professional development (teaching skills, research output, rapid promotion and community service), a simple linear regression analysis was conducted and the coefficient tested. The model used the following statistical equation:

$\mathbf{Y = \beta_0 + \beta\ X + \varepsilon}$

Y = dependent variable (component of new faculty professional development);

$\beta_0$ = the constant or the intercept

$\beta$ = the regression coefficient

X = the independent variable (mentoring)

Preliminary analysis was conducted to ensure no violation of normality and linearity. The assumption of linearity was tested using the Pearson product moment correlation. As evident in Table III, all the components of new faculty professional development significantly and positively related with mentoring with Pearson correlation coefficients of 0.292 or more and a p-value of 0.000. This indicates that mentoring programmes geared towards new faculty is associated with improved teaching skills, research output, rapid promotion and community services.

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**Table III: Correlation between mentoring and the components of new faculty professional development**

| | | Good Teaching Skills | Research Output | Rapid Promotion | Community Services |
|---|---|---|---|---|---|
| Mentoring | R | . 478 | .335 | .318 | .292 |
| | P-value | .000 | .000 | .000 | .000 |
| | N | 169 | 169 | 169 | 169 |

Source: Field data, (2022)

To estimate the effect of mentoring on the four components of new faculty professional development, the simple linear regression model was employed. The regression model summary explained 22.8 percent of the variations in teaching skill and the overall effect was statistically significant (F = 49.941, p-value = 0.000). As depicted by the regression model (teaching skills = 25.444 + 0.195 mentoring) in Table VI, a unit increase in mentoring enhances new faculty teaching skills by 0.195 given a constant of 25.444. Generally, it was observed that mentoring significantly and positively affects new faculty teaching skills (t = 7.067, p-value = 0.000, confidence level = 249, .140). This discovery is similar to the finding of Williams et al, (2009) who espoused that an effective mentoring practice improves the professional skills of early faculty. The finding also corroborates the results of Weinberg and Lankau (2011).

**Table IV: Effect of Mentoring on new faculty teaching skills**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | p-value | 95% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | Lower | Upper |
| (Constant) | 25.444 | 1.455 | | 17.493 | .000 | 22.57 | 28.31 |
| Mentoring | .195 | .028 | .478 | 7.067 | .000 | .249 | .140 |

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a. Dependent Variable: New faculty teaching skills

Another new faculty development component analysed was their research output. Data from the study showed that mentoring accounted for about 11 percent of the changes in new faculty research output. With an F-statistic of 21.383 and a p-value of 0.000 the total variance explained was significant. The regression model (Research output = 26.736 + 0.163 mentoring) shows that mentoring positively affects new faculty research output. That is, increase in mentoring activities increases the research output of new faculty. With a t statistic of 4.624, a p-value of 0.000 and a confidence bounds that do not overlap zero (0.152, 0.061) the effect of mentoring on new faculty research output was significant (Table V). This finding corroborates the finding of Rekha and Ganesh (2019) and Ekpoh and Ukot (2019), who discovered that mentoring programmes in higher academic institutions contribute significantly to new faculty research output.

**Table V: Effect of mentorship on new faculty research output**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | p-value | 95% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | Lower | Upper |
| (Constant) | 26.736 | 1.214 | | 22.028 | .000 | 24.34 | 29.13 |
| Mentoring | .163 | .023 | .335 | 4.624 | .000 | .152 | .061 |

a. Dependent Variable: New faculty research output

From the regression model (Rapid promotion = 24.495 +0.217 mentoring), it could be seen that mentoring positively affects new faculty rapid promotion with a score of 24.495. Given a t - statistic of 8.516, a p-value of 0.000 and a confidence bounds not overlapping zero (0.267, -0.167) the effect of mentoring on new faculty rapid promotion was statistically significant (Table VI). This means that increases in mentoring activities and practices can enhance the rapid promotion of new faculty. This result is in agreement with the findings of Doran et al. (2018) and Dachner et al. (2021).

**Table VI: Effect of Mentoring on new faculty rapid promotion**

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | p-value | 95% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | Lower | Upper |
| (Constant) | 24.495 | 1.344 | | 18.223 | .000 | 21.84 | 27.14 |
| Mentoring | .217 | .025 | .317 | 8.516 | .000 | .267 | .167 |

a. Dependent Variable: New faculty rapid promotion

Finally, the effect of mentoring on new faculty community services was also tested. Evidence from

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the study showed that mentoring explains 8.5 percent of the variations in new faculty community services. The explanatory power, even though small, was found to be significant (F = 15.767, p-value = 0.000). The regression model (Community services = 35.686 +0.177 mentoring) showed that where there are mentoring practices, new faculty response to community services will improve (Table VII). It was also evident that mentoring positively affects new faculty response to community services. The effects of mentoring on new faculty community service was significant (t = 3.97, p-value = 0.000, confidence interval = 0.265, 0.089). This finding is also in agreement with the findings of Dachner et al. (2021).

**Table VII: Effect of Mentoring on new faculty community services**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | p-value | 95% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | Lower | Upper |
| (Constant) | 35.686 | 2.349 | | 15.190 | .000 | 31.04 | 40.32 |
| Mentoring | .177 | .045 | .292 | 3.970 | .000 | .265 | .089 |

a. Dependent Variable: New faculty community services

## CONCLUSION AND POLICY IMPLICATIONS

This paper examined the effect of mentoring practices on the professional development of new faculty in six selected technical universities in Ghana. Extant literature provides strong evidence of the importance of mentoring practices, especially for early faculty in academic institutions for their personal and professional development. Against this background, the study analysed four factors which are believed to affect the professional developmental of new faculty, namely; teaching skills, research output, rapid promotion and community services. The correlation analyses established a positive relationship between mentoring practices and new faculty's teaching skills, research output, rapid promotion and community services. Mentoring had a strong relationship with teaching skills, research output and rapid promotion, with community services having a weak relationship, even though the relationship was significant. The study further found that mentoring had positive and significantly effect on all the factors of new faculty professional development analysed. This study and its findings are consistent with Kram's mentor role theory. This finding is important for heads and managements of tertiary institutions around the globe for policy and decision making. In view of what literature has found and this study in particular, the researcher recommends that, mentorship and mentoring policies should be strongly enforced by Heads of Departments, Deans, Registrars and Vice Chancellors of tertiary institutions to enjoy the benefits of mentoring, to help develop the personal and professional skills of new faculty for their current and future job assignments.

## REFERENCES

Agalga, J., & Thompson, E. S. (2016). Mentoring as a Tool for Career and Human Resource Development: The Case of the University for Development Studies. *UDS International Journal of Development*, *3*(1), 33-50.

Agunloye, O. O. (2013). Impact of mentoring program on faculty performance in institutions of higher education: a developing country study. In *Active Citizenship by Knowledge Management & Innovation: Proceedings of the Management, Knowledge and Learning International Conference 2013*, 957-964.

Anafarta, A., & Apaydin, C. (2016). The Effect of Faculty Mentoring on Career Success and Career Satisfaction. *International Education Studies, (9)*6, 22-31.

Arkorful, V., & Abaidoo, N. (2015). The role of e-learning, advantages and disadvantages of its adoption in higher education. *International Journal of Instructional Technology and Distance Learning*, *12*(1), 29-42.

Baker, V. L. (2015). People strategy in human resources: Lessons for mentoring in higher education. *Mentoring & Tutoring: Partnership in Learning*, *23*(1), 6-18.

Baumgartner, C. M. (2020). Supporting beginning music teachers: The development of the Oklahoma Music Educators Association mentorship program. *Journal of Music Teacher Education*, *29*(3), 10-23.

Chang, H., Longman, K. A., & Franco, M. A. (2014). Leadership development through mentoring in higher education: A collaborative autoethnography of leaders of colour. *Mentoring & Tutoring: Partnership in Learning*, *22*(4), 373-389.

Chen, C., Liao, J., & Wen, P. (2014). Why does formal mentoring matter? The mediating role of psychological safety and the moderating role of power distance orientation in the Chinese context. *The International Journal of Human Resource Management*, *25*(8), 1112-1130.

Cherono, V., Towett, D. K., & Njeje, D. (2016). Influence of mentorship practices on employee performance in small manufacturing firms in Garissa County, Kenya. *European journal of business and management*, *8*(8), 151-160.

Cooper, D.R., Schindler, P.S. (2006) *Business Research Methods*. London: McGraw-Hill.

Dachner, A. M., Ellingson, J. E., Noe, R. A., & Saxton, B. M. (2021). The future of employee development. *Human Resource Management Review*, *31*(2), 100732.

Dankwa, J. A., & Dankwa, K. (2013). Mentoring in the University of Cape Coast: A Reality or a Fallacy. *British Journal of Physiology Research*, *1*(1), 165-236.

Doran, J. M., Galloway, M. P., Ponce, A. N., & Kaslow, N. J. (2018). Leadership mentoring: a survey of early career psychologist leaders. *Mentoring & Tutoring: Partnership in Learning*, *26*(2), 165-182.

Dwomoh, G. & Luguterah, A.W. (2020). Knowledge and Skills Gap Analysis of Technical Universities in Ghana. *Journal of Studies in Social Science, 19(*1), 1-25.

Ekpoh, U. I., & Ukot, S. I. (2019). Mentoring Practices and Lecturer's Teaching Effectiveness in Universities. *Journal of Education and Human Development*, *8*(4), 131-139.

Grant, M. A., Bloom, G. A., & Lefebvre, J. S. (2020). Lessons learned: Coaches' perceptions of a pilot e-mentoring program. International Sport Coaching Journal, 7(1), 22-30.

Hammond, S., Bowen, P., & Cattell, K. (2016, September). The roadside work-seeker phenomenon in the South African informal construction sector. In *Proceedings of the 32nd Annual ARCOM Conference*, 5-7.

Jupp, V. (2006). *The Sage Dictionary of Social Research Methods*. California: SAGE.

Kearney, L. K., Smith, C., Carroll, D., Burk, J. P., Cohen, J. L., & Henderson, K. (2018). Veterans' Health Administration's (VHA) National Mental Health Leadership Mentoring Program: A pilot evaluation. *Training and Education in Professional Psychology*, *12*(1), 29.

Kolade, O. G. (2015). Mentoring as a competency tool for the development of the university teaching staff-A case study of Adekunle Ajasin University Akungba Akoko. *International Journal of Academic Research in Business and Social Sciences*, *5*(6), 277-288.

Kothari, C.R. (2011). *Research Methodology, Methods and Techniques.* (2nd. Ed.). New Delhi: New Age International Publishers.

Kutsyuruba, B., & Treguna, L. (2014). Curbing early-career teacher attrition: A pan-Canadian document analysis of teacher induction and mentorship programs. *Canadian Journal of Educational Administration and Policy*, (161).

Lunsford, L. G., Baker, V., Griffin, K. A., & Johnson, W. B. (2013). Mentoring: A typology of costs for higher education faculty. *Mentoring & Tutoring: Partnership in Learning*, *21*(2), 126-149.

Naris, S. N., & Ukpere, W. I. (2010). Mentoring programmes for academic staff at the Polytechnic of Namibia. *African Journal of Business Management, 4*(3), 350-356.

Rekha, K. N., & Ganesh, M. P. (2019). Factors influencing mentors' learning from mentoring relationships: insights from a serial mediation study in India. *International Journal of Training and Development*, *23*(3), 221-239.

Rosemary, M., Ekechukwu, O., & Horsfall, M. N. (2015). Academic mentoring in higher education: A strategy to quality assurance in teacher education in Nigeria. *European Journal of Research and Reflection in Educational Sciences Vol*, *3*(2).

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business_Students* (5thed.). London: Pitman Publication.

Schwerdtle, P., Morphet, J., & Hall, H. (2017). A scoping review of mentorship of health personnel to improve the quality of health care in low and middle-income countries. *Globalization and Health*, *13*(1), 1-8.

Siengthai, S., Pila-Ngarm, P., & Sorakraikitikul, M. (2020). How Mentors and Protégés Perceive and Practice mentoring in Thailand. In *Mentorship-driven Talent Management*. Emerald

Publishing Limited.

Sulemana, M. (2019). Mentoring In Public Universities in Ghana: Assessment of Academic Staff Mentoring and its Contribution to Staff Development in The University for Development Studies (Doctoral dissertation).

Waterbury, T. (2015). Learning from the pioneers: A multiple-case analysis of implementing Lean in higher education. *International Journal of Quality & Reliability Management*.

Weimer, K. R. (2021). Mentor Identification, Selection, Preparation, and Development: A Literature Review. *Update: Applications of Research in Music Education*, *39*(3), 20-28.

Weinberg, F. J., & Lankau, M. J. (2011). Formal mentoring programs: A mentor-centric and longitudinal analysis. *Journal of Management*, *37*(6), 1527-1557.

Williams, E. A., Scandura, T. A., & Gavin, M. (2009). Understanding team-level career mentoring by leaders and its effects on individual team-source learning: The effects of intra-group processes. *Human Relations*, *62*(11), 1635-1666.

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