

Improving Mentoring Programs of Construction Graduates in South Africa

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SUMMARY

The construction industry is a major contributor to the economy of any country, including South Africa. As a result, the industry has to keep up with producing the required quality that can be achieved through continuous transfer of knowledge from experienced mentors to fresh graduate mentees. In view of this, there is a need to ensure continuous improvement in mentoring relationship, this study therefore examines the necessary measures for fostering and improving good mentoring relationship among mentoring participants for the continuous relevance and optimum performance of the industry. Existing and relevance literature materials in the areas of mentoring and improvement measures were reviewed and several variables were highlighted. These were further evaluated to arrive at thirteen major improvement measures that are peculiar to the construction industry in the study area, which were subjected to further mathematical analysis. Closed-ended questionnaire of various check boxes were designed as research instrument for the study and 60 of them were administered on construction professionals from contracting and consulting sectors of the construction industry for balanced opinion. The professionals include architects, project managers, construction managers, engineers and quantity surveyors. Data gathered from the retrieved and completed 51 questionnaires were analysed using mean item score (MIS) and standard deviation (SD) methods. The analysis revealed that the need to define roles and responsibilities of mentoring participants as well as increase in quality of education and time spent on mentoring programs are the major improvement measures for effective mentoring relationships. The findings of this study is useful not only for mentors and mentees but also for management of consulting and contracting organisations in the construction industry in their quest for enhancing productivity of their workforce for subsequent performance of the organisations.

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1. INTRODUCTION

The According to Ortiz, Castells & Sonnemann (2009) the main purpose of the construction industry is to elevate the social, economic and environmental indicators of sustainability. This basically means that the main purpose of the construction industry is to improve the quality of life for people by helping them to leave in a healthy environment where there is socialization and economic growth. The development investment in infrastructure conference DII (2015) noted that construction companies in South-Africa have been producing poor quality of works and low productivity which affects the economy. Skills shortage in the construction has been termed as one of the major setbacks of the construction industry. According to Dainty et al (2005) the construction skills shortage has a negative impact on the construction industry. This impacts affects the construction industry's performance and future developments of the construction industry.

According to Zhang et al (2016), mentoring programs can be described as a process of taking care of new graduates in their respective fields while growing them personally and professionally. Zhang et al (2016) further states that that this process can only be undertaken by a person who is more skilled and experienced in acting as the motivator, teacher, role model and a friend to the graduate. Mentoring programs can be summarized as being a process which is implemented by many construction firms to empower the careers of new construction graduates including both professional and personal growth. The findings by the study of Underhill (2006) titled 'the effectiveness of mentoring programs in corporate setting' agrees with the above statement as they revealed that mentoring programs plays a vital role in enhancing the careers of new graduates.

Construction education and training authority (CETA) was formed in 2000 during the announcement of skills development within the construction industry. Ceta was formed to initiate or monitor any skills development program initiated within the construction industry. It is also formed to make sure that the quality of any skills development programs meets up with the quality council for trades and occupations standards. In summary Ceta monitors mentoring programs implemented in the construction to make sure that they produce the required objectives. Some of the current mentoring programs include Sakhisizwe contractors training and Sizani training programs. Nkomo and Thwala (2014) also outlined Eskom construction trade skills development program and Vuk'uphile learnership program as some of the essential mentoring programs. According to Ritchie (2002) the government and other construction firms utilize mentoring programs which are used to train construction graduates. Many construction graduates participate in mentoring programs but don't acquire the required

skills for them to start their careers even after completing the duration of this mentoring programs. According to McCormick (2014) many construction graduates completes their training under mentoring programs but they still need a lot of training even after completing mentoring programs. This study therefore examining various ways of improving mentoring programs for construction graduates with a view to improving them for better performance.

2. MEASURES FOR IMPROVING MENTORING OF GRADUATES

The construction industry is one of the sectors which contributes to the South African economy. It is very vital for this sector to be effective but like other sectors the construction industry needs resources in order to be effective for the economy. One of the main important resource is the personnel. The kind of personnel that is needed needs to have the required skills to be able to perform the correct construction practices. Without this skills the construction industry will not be effective and this will affect the economy. Poulsen(2006) stated that mentoring programs are the only solution in making sure that new graduates are able to be competent in the industry.

Many mentoring programs don't produce the main objectives that were set when they were implemented. This is mainly caused by not following procedures of implementing mentoring programs and some don't produce the required objectives because the principles of assessing the effectivity of mentoring programs is not followed. Poulsen (2006) noted that one of the main problems of implementing a successful mentoring is having both the mentor and the graduate having different interest or assumptions of the program. According to Rhodes (2006), mentoring programs fail because the people who implement the programs fail to match the correct Mentor with the correct graduate. Furthermore Rhodes (2006) outlined that mentoring programs are dysfunctional because they are not being implemented to suite the set objectives.

The measures for improving mentoring relationship of construction graduates include the following: E-mentoring; enhancing good relationship among participants; good behavior of mentor; good quality of communication; understanding of the mentee; determining mentoring program structure; internal check on programs; measuring program success using a scale; introduction of guest speakers; mentoring training; providing motivation for participants; interview with program participants; motivating the mentors; measuring program performance; and conducting surveys among others (Wang, Tomlinson and Noe, 2010; Wolfe 2011; Hishinuma, Horiuchi and Yanai, 2016; . The important ones are hereby explained.

2.1 E-Mentoring

E-mentoring is the relationship between the mentor that has experience and the graduate with less experience. The communication of this kind of mentoring program is mainly based on the usage of a computer, phone or any electronic technology information and the goal of the relationship is to develop the career of the graduate Bierem and Merriam (2002).E-mentoring

will be very vital for both the graduate and the mentor. Previous studies showed that many mentors experienced a challenge in performing their duties of being mentors simply because they don't have enough time. According to Single and Single (2005) E-mentoring is an alternative method of face to face mentoring as it will facilitates the expansion of mentoring opportunities for all graduates including those who are far from where the programs are being implemented.

Single and Single (2005) further stated that the benefits of mentoring programs are mutual to those of face to face mentoring programs, the benefits include organizational connections, career development for construction graduates. Mentoring programs will serve as the substitute for face to face mentoring programs which have mentors who don't have enough time to spend on mentoring programs. According to Wolfe (2011), E-mentoring makes it possible for the mentor to overcome the constraints of having time limitations and the distance between the two parties which might hinder the objectives of the mentoring programs. According to Bierema and Merriam (2002) many construction graduates have limited access to mentoring programs due geographical barriers between them and the places where mentoring programs were implemented. In summary E-mentoring can be used where the mentor does not have enough time for the program, in addition the mentor can just give the graduates tasks to complete on site with other employees and then submit their tasks to mentor using the email.

2.2 Enhancing good relationship among participants

The relationship between the mentor and the graduate is very vital for mentoring programs. This is the core point of mentoring programs as both the parties need to share the same interest on the programs. According to Holley and Caldwell (2012) many graduates and mentors don't finish the duration of the programs because their relationship is not concrete. It is very vital for both the mentor and the graduate to have common grounds in terms of sharing ideas to avoid dysfunctional relationships which might cause either one to pull out of the program. The program facilitators should encourage good relationship between the mentor and the graduate. Many formal mentoring relationships might consist of mentor graduate pairing which might not work, but the program facilitators should encourage a good relation to avoid future problems during the process of the mentoring program. According to Scandura (1998) many mentoring relationships end up in trouble because of the differences between the mentor and the graduate. Poulsen (2013) suggests that the first step in making sure that the organization gets the mentor that will produce the required outcomes is to focus on showing the mentor how he is going to experience learning opportunities from the program. This will interest the mentor and make him to be the correct candidate to take over as the programs mentor who will connect with the graduates. Poulsen (2013) further suggests that if the organization has the opportunity to decide if the program is good for the graduate they can use the opportunity to motivate the graduate to be goal driven and this will make the graduate to be in a good relationship with the mentor.

As above mentioned that for the program to work the main important part is for the graduate and the mentor to have common goal and interest. Having common goals and interest will provide a stable relationship between the two parties, and this will lead them in sharing common ideas. According to Sanfey et al (2013) a mentoring relationship must begin with the two parties having common goals and interest .furthermore Sanfey et al (2013) noted that the graduates must be clear and sure about their goals as they are new in the industry. According to Rhodes (2006) positive impacts of mentoring programs are derived from the support and role modelling coming from the mentor.

2.3 Quality of communication

The communication between the mentor and the graduate is very vital for the graduate. The interaction between the mentor and the graduate must consists of the graduate's work-related goals and some personal problems if the graduate is experiencing such. According to Holley (2012) the graduate must use the time he spends with the mentor effectively in order to ask unclear questions and discuss some problems with the mentor. Lyons and Oppler (2004) states that the frequency of meeting between the mentor and the graduate is crucial for developing the graduate's career. Wanberg (2007) states that self-disclosure by the graduate is the most important process within the mentoring relationship and is vital for career development including good communication between the two parties. Dainty (2005) further states that self-disclosure should be bigger than that of the mentor.

2.4 Understanding of the mentee

As we previously discussed the importance of mentoring relationship, the relationship is vital in making sure that the outcomes of the programs are those that were stated during the development of the program. Safney et al (2013) stated that the first step in developing a mentoring relationship is that both the mentor and the graduate should have common goals. The organization implementing the mentoring program should understand the goals of each and every participant in the program. This will help the organization to be able to pair the mentors and the graduates available. Pairing the mentor and the graduate with the same goals will enhance the mentoring relationship between the two parties. Ofelia and Olivero (2014) suggested that the organization implementing the mentoring program should take necessary steps to understand the participants and check if they have the common goals in terms of the program

2.5 Determining Mentoring Program Structure

According to McCormick (2014)) most of mentoring programs must run for close to 12 months. The program, structure can be determined by the organizations culture and the metrics that flow from the programs objectives set in the previous stage. Establishing the duration of a program helps the participants to focus on the goals of the program. The structuring of a program can be formal if the culture of the organization is formal, but if the

organization is not formal they won't be any need for the program to be formal but certain rules must be set for the programs. McCormick citing Kessler (2010).systems should then be developed to be used to check if the programs goals are met in the future and lastly necessary people with adequate skills to help the program to meet its implemented goals must be organized

2.6 Internal check on programs

A mentoring program which can run for a certain period usually the maximum period is 12 months.it is sometimes possible that the participants can deviate during from the original stated goals every time they meet. Mentoring relationships also consists of personal problems interactions which might be the main factor in driving both the parties away from the original goals. Ofelia and Olivero (2014) state that mentoring programs goals and objectives can change during interactions of the mentor and the graduate. Ofelia and Olivero (2014) further stated that it is very important to keep on rechecking if the participants are still focusing on the same goals of the programs. According to Hudson et al (2013) citing (Harris & Jones, 2010), a professional learning community is a group of professionals who are well organized and they bring change and improvements in the mentoring programs that are falling out of their objectives and goals. It was further state dthat the main function of this group is to Re-organize the mentoring programs to advance the organization.

2.7 Mentoring Training

According to Poulsen (2006) seminars and workshops should be used to introduce the participants and train the participants in terms of what is expected from them. Poulsen further states that this training will help in developing a common platform for the program and also help create better results together avoiding any misunderstandings. Many organizations appoints employees with high experience in their organizations. Mentoring new employees will require certain skills from the employee appointed as the mentor. According to Rowley (1999) one of the most important qualities the mentor must have is to be fully committed to the graduate, he must be there all the time to be able to help them with their problems. Rowley (1999) further states that mentors must have good communication skills to be able to progress the programs in more effective way. Allen et al (2006) states that training a mentor will have a huge positive impact on the programs .They further state that the training helps in developing interpersonal relationships and the level of communication. According to Sarri (2011)) to make mentoring program work, Training should be given to the participants particularly to the mentor. The role of the mentor is to help early stage employees develop in their careers. Sarri (2011) further states that for mentors to achieve this role they need formal preparation, training and continued support in order for them to be able to tackle their complex roles

2.8 Motivating the mentors

According to Harrison (2011) motivation regarding mentoring programs is about building the relationship among the participants in the program. Harrison further states that one cannot just motivate the participants, but must first understand or know what motivates them. Many people think that money motivates everyone in the organization but Harrison (2011) is against that as she states that many people can be motivated in different ways for example there are some people who can be motivated by just making their roles in the programs to be interesting. This can be done by expanding the roles of each individual to a more challenging role rather than having to do one task everyday

Previous studies show that being a mentor comes with certain factors which needs to be met by any individual willing to act as the mentor to graduates participating in mentoring programs. Among this factors are the time that will be required from the mentor including commitment towards the programs. Such factors tend to demotivate individuals from entering in mentoring programs to act as mentors for the graduates participating in the programs. According to Allen (2003) because of the considerate amount of time and commitment required from mentors many individuals are not motivated to enter into the programs to act as mentors and this can be a huge barrier in implementing a successful mentoring program. Mentors are motivated by curtain outcomes and personal interest during the progress of the programs. According to Allen (2003) there are two factors which motivates mentors. The first one is the desire that mentors have in helping others and lastly is the desire to increase personal learning and to feel gratification. Judging from the above many mentors are motivated by the positive outcomes of the programs as they progress and they can also be motivated by being assured that they will also learn from the programs

2.9 Measuring program performance

According to Mueller and judge (2008) the performance of a mentoring program can be measured using a variety of measures of the program ,this include using measurements based on objective measures, outcome measures of performance and perceived competence of the protégé, Furthermore the most important impacts that the evaluators used to measure the performance of the program are promotions of the graduate, The salary increase that the graduates receive, job satisfaction including career satisfaction within the graduates. Positive results from measuring this factors constitutes that the program is performing well but negative results suggests that the program is not doing well and adjustments in the program are required to make the program to perform to the required level

2.10 Conducting surveys

According to Ortiz et al (2009) survey is described as a method that is used for collecting information from a sample of individuals. It is the opposite of census were the overall population is used to gather information. The sample size of gathering the information regarding mentoring programs varies as the size depends on the statistical quality needed for the findings. In most cases if the sample selected is seen as the portion that can reflect the characteristics or ideas of the overall population the sample is adequate enough to gather information regarding the overall population. The data supplied by the respondents regarding

mentoring programs is kept confidential with respect to the surveys 'codes of ethics Ortiz et al (2009). Gibb (1994) states that surveys helps to identify whether the expected benefits of mentoring are linked to archiving the objectives of the broader initiative, for example the sample selected can be given a list of expected benefits of the program and be asked to indicate the ones that they have realized

3. RESEARCH METHODOLOGY

Survey design was adopted for collection of data from respondents within the Gauteng province of South Africa. The province was selected because it has a high number of completed and on-going construction projects, government sectors and establishments as well as many construction companies which recruits new graduates and adopt mentoring programs. The targeted groups of respondents are construction professionals from the contracting and consulting sectors of the construction industry. They include engineers, architects, project managers, construction managers and quantity surveyors that have been involved in mentoring programs in the industry.

Using purposive sampling, the following conditions were adopted in the selection of respondents and subsequent distribution of questionnaire: minimum of 5 years experience in their field; qualified member of their professional bodies; knowledge of mentoring programs, and must have participated in mentoring programs at one time or the other. Questionnaires were then designed to solicit information from 60 individuals that meet the set criteria. The questionnaire were accompanied with a cover letter explaining the purpose of the study and soliciting their cooperation in providing needed information. They were also informed that their participation is voluntary and they can withdraw from participating at any time. The main questionnaire is designed in two sections with the first section soliciting information regarding their general information while the second aspect collect information regarding the main objective of the study which is to evaluate various measures for improving motoring programs of construction graduates. 5-point Likert scale in which 1= strongly disagree (SD); 2= Disagree (D); 3= Neutral (N); 4= Agree (A) and 5= Strongly Agree (SA) was adopted in evaluating the improvement measures. Out of the retrieved 53 questionnaires, 2 were not completely filled and were therefore unfit for further analysis. The data obtained from the remaining 51 questionnaires were analysed using mean item score (MIS) and standard deviation (SD) to determine the level of importance and rank of the identified improvement measures. The internal level of consistency of the collected data was evaluated using Cronbach's alpha and the obtained value of 0.707 indicate that there is correlation among the scores.

4. FINDINGS AND DISCUSSION

4.1 Background Information

Of the 51 respondents, 22 are female while 29 are male with an average of about 12 years of experience in the construction industry. It was ensured that all the participants are members of their professional registration bodies and have participated in mentoring programs. About 45% (23 respondents) are from contracting firms while the remaining are engaged in consultancy services in the industry. Among them are architects, project managers, construction managers, engineers and quantity surveyors representing 20%, 18%, 14%, 25% and 23% respectively.

4.2 Measures for Improving Mentoring Programs

Table 1 shows the respondents' ranking of Measures to improve mentoring programs for construction graduates in the Gauteng Province, South Africa. The table shows that the following measures to improve mentoring programs for construction graduates fell within the agree and strongly agree Likert scale showing that the respondents were in common agreement with the secondary data as it revealed that they are the main important measures of improving mentoring programs. It reveals that Clearly define roles and responsibilities for each participant was ranked the first with a mean item score (MIS) of 4.65 and standard deviation (SD) = 0.594; increase quality of education and time spent on the programs was ranked the second with a MIS of 4.57 and SD = 0.500; training the mentor was ranked the third with a MIS of 4.51 and SD = 0.703; interim check-ups on the program goals and introducing guest speaker from the industry were both ranked the fourth with MIS of 4.45, SD = 0.610 and MIS of 4.45 and SD = 0.832 respectively; clearly determine the program structure was ranked the fifth with a MIS of 4.41 and SD = 0.606; developing a scale measure for the progress of the program and define & understand the graduates participating in the program were both ranked the sixth with MIS of 4.39, SD = 0.666 and MIS of 4.39 and SD = 0.635 respectively; develop trust among the participants was ranked seventh with a MIS of 4.25 and SD = 0.627; establish short and long term goals for the participants was ranked eighth with a MIS of 4.22 and SD = 0.783; mentor must display good characteristics satisfaction was ranked ninth with a MIS of 4.41 and SD = 0.775; enhance the relationship among the participants was ranked tenth with a MIS of 4.04 and SD = 0.848.

Further the table showed that the following measurement of improving mentoring programs for construction graduates was between the neutral and agree Likert scale showing that the respondents were likely to agree with the literature as it revealed that it is also the main important measure of improving mentoring programs E-mentoring introduction was ranked the eleventh with a MIS of 3.47 and SD = 0.924. Findings by Wolfe (2011) agree with the above findings as they stated that many graduates agreed that introducing guest speakers from the construction industry will enhance their learning as the speaker will bring more perspective of the industry, furthermore Hemphill and Hemphill (2007) agree with the above

findings as they noted that introducing guest speakers can increase the involvement of the graduates in the programs as the speakers will be adding interest, experience and expertise in the graduates field. The findings further agree with the study of McCormick (2014) which states that structuring of the mentoring programs helps the participants to be able to focus on the main goals of the programs. Hishinuma, Horiuchi and Yanai (2016) agrees with this finding as it was noted that a measurement scale can be used to measure the overall progress of the program, however the above findings are not in common agreement with the study of Single and Mueller (2003) as they stated that e-mentoring is one of the most important measures that can be used to upgrade previous mentoring programs as it will not take much of the mentors complex time

Table 1: Measures for Improving Mentoring Programs

Variables	SD	MIS	R
Clearly Define Roles and responsibilities for each participant	0.594	4.65	1
Increase quality of education and time spent on the programs	0.500	4.57	2
Training the mentor	0.703	4.51	3
Interim check-ups on the program goals	0.610	4.45	4
Introducing guest speaker from the industry	0.832	4.45	4
Clearly Determine the program structure	0.606	4.41	5
Developing a scale measure for the progress of the program	0.666	4.39	6
Define and understand the graduates participating in the program	0.635	4.39	6
Develop Trust among the participants	0.627	4.25	7
Establish short and long term goals for the participants	0.783	4.22	8
Mentor must display good characteristics	0.775	4.14	9
Enhance the relationship among the participants	0.848	4.04	10
E-mentoring introduction	0.924	3.47	11

SD = Standard deviation; MIS = Mean item score; R = Rank

5. CONCLUSION AND RECOMMENDATIONS

The findings and literature of this study revealed that the main measures that can be used to improve mentoring programs include: to clearly define the roles and responsibilities of each participant which will help to avoid conflicts during the progress of mentoring programs. Further the findings and literature revealed that the other main measure to improve mentoring programs is to increase the quality of communication and time spent on the programs as this will help both the graduate and the mentor to interact well to avoid conflicts and the mentor will have more time to show the graduate all that is necessary to learn. In addition the findings and literature revealed that the other main measure to improve mentoring programs is to train the mentors which will enhance the skill of mentors in order for them to perform the correct functions of being a mentor. The implications of this study based on the findings of this objective are that the government and construction firms will train experienced employees how to be mentors first or employ qualified mentors rather than just using people with experience in the construction industry lacking the qualities of being mentors.

It is therefore recommended that the construction firms and the government must use mentors who are qualified or train any employee chosen to be the mentor how to perform the duties of being a mentor. Lastly Mentoring programs evaluators should bring innovation in structuring mentoring programs to make them interesting rather than to follow one structure every time, for example introducing awarding hardworking graduates every month during the progress of the programs. More so, further study should be conducted to assess the challenges of E mentoring programs compared to face to face mentoring programs in the construction industry.

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