

# **Determining The Benefits Of The Engineering Mentoring Programmes For Graduates**

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## **Abstract**

Engineering graduates' inability to apply theoretical knowledge in practice has become a challenge during the graduates' transition into the industry. Engineering graduates require the competence to apply theoretical knowledge. Through experiential learning, and with the assistance of a senior and/or experienced professional acting as mentors, this is achievable. This study explores the perspectives of academic and industry professionals with an engineering, construction and academic background on what benefits mentoring provide in getting the engineering graduates to build the relevant practical skills. A qualitative research approach using semi-structured interviews was conducted with participants. The study findings based on the analysis of data collected shows that through mentoring graduates accelerate career development, experiential learning, and skills development. Mentoring can foster the acquisition of the practical skills required for the engineering graduates to be attracted, integrated and established in the industry. Graduates also become aware of the significance of mentoring in exposing them to experiential learning and professional development. They are therefore better informed to participate in mentoring. Organisations and employers therefore become more encouraged to support mentoring programmes in generating competent human capitals.

## **Keywords**

Engineering graduates, experiential learning, mentoring, engineering professionals.

## **1. Introduction**

One of the increasingly important ways that graduates attain competency and the ability to establish a successful career path in the industry is experiential learning, that is, the acquisition of practical skills and access to relevant experience. Lack of experience or practical skills has been associated with the issue of engineering graduates' inability to enter the workplace and industry (Du Toit & Roodt, 2008; ECSA, 2012; SAICE, 2006; Sandelands & Hall, 2009). The engineering and construction industry in general assesses graduates based on their practical skills background for their attraction and retention in the industry (Custovic, 2015; Locurcio & Mitvalsky, 2002). As a result, it is important for engineering graduates to access opportunities that will support their ability to acquire experiential knowledge.

Previous attempts focused on addressing graduate engineers' lack of experience or practical skills through skills development programmes, job shadowing, holiday placements and other initiatives is not always successful (ECSA, 2012; Mateus, Allen-Ile & Iwu, 2014; Sandelands & Hall, 2009). Similarly, numerous researches have been conducted on the lack of skills among engineering graduates and how it affects their attraction into the workplace or industry (Chetty, Bird & Lawless, 2016; Du Toit & Roodt, 2008; Mateus, Allen-Ile & Iwu, 2014; Sandelands & Hall, 2009). Of utmost importance is that industry requires the continuous availability of experienced engineering professionals to take up professional responsibilities (Du Toit & Roodt 2008; ECSA, 2012).

Presently existing literature relates to the importance of mentoring and how mentoring approach is vital in developing practical skills, building and facilitation of knowledge base of an individual based on experiential learning (Akili, 2014; Custovic, 2015; Marsh, 2017; Mavuso, 2007; Vesilind, 2001). Marsh (2017) stated that the

only resolution to the issue of knowledge crisis is through a system of mentoring. According to Custovic (2015), adequate mentoring is an essential part in the development of the engineering graduate and in the process of mounting the professional or the corporate ladder into establishing an excellent career. This study therefore revisits mentoring by exploring the benefits it provides with regards to developing young graduates professionally.

Knowledge about the benefits of mentoring will become a valuable resource for the professional and personal development of the engineering graduates, hence the focus of this study on mentoring. With the outcome of the study, the engineering graduates will be able to explore the benefits mentoring provides in getting them acquainted with the industry's complexities and in accessing the practical skills needed for attraction and establishment in the industry.

This paper reviews literature on mentoring and the benefits mentoring provides in supporting the graduates' ability to access experiential knowledge that will advance the cause of getting attracted and retained in the industry. This study therefore explores mentoring as a means of addressing this shortcoming. The research methodology applied in this study, the research findings, discussion, recommendations and conclusion support the outcome of the research.

## **2. Literature Review**

### **2.1 Engineering profession**

Engineering graduates with their educational background lacks the required practical skills for their attraction and integration into the industry (Mateus, Allen-Ile & Iwu, 2014; Pauw, Oosthuizen & van der Westhuizen, 2006; Pierrakos et al, 2009). Meanwhile, South African engineering graduates are not adequately prepared for the industry's complexities and are with limited or no industry experience (Mateus, Allen-Ile & Iwu, 2014; PPS, 2015). Conversely, competent engineering professionals are needed for the development of the industry and the nation (CIDB, 2007; Daniels, 2007). The acquisition of practical skills is therefore vital in the development and establishment of the engineering graduates for the industry (Pauw, Oosthuizen & van der Westhuizen, 2006). According to ECSA (2012), these graduates will have to go through a professional journey to becoming competent engineering professionals.

### **2.2 Mentoring**

The foremost form of personal, professional and learning development was found in the mentoring relationship developed between a mentor and a mentee (Bierema & Merriam, 2002). Individuals involved in this relationship have become more skilled and successful in their profession thus highlighting the importance of mentoring (Baldwin & Hemingway, 2010; Bierema & Merriam, 2002; Wedin, 2003). Practical skills, according to Marra & Pangborn (2001), characterises the human capitals of the future. Fast-tracking the acquisition of the engineering graduates' practical skills can be achieved through mentoring (Baldwin & Hemingway, 2010; Bloomberg, 2014; Frankson, 2015; Locurcio & Mitvalsky, 2002). An avenue for experience sharing and knowledge transfer from senior engineering professionals to engineering graduates can be created and accelerated through a mentoring system (Akili, 2014; Bloomberg, 2014; Marsh, 2017). Given that experience sharing and knowledge transfer can be achieved through mentoring (Akili, 2014; Dolenc, 2013; Locurcio & Mitvalsky, 2002; Mavuso, 2007) the senior engineering professionals should mentor young engineers (Akili, 2014; Marra & Pangborn, 2001; PPS, 2015).

According to existing literature, mentoring approach assists individuals (as mentees) with personal and professional development while gathering the needed knowledge and experience in the process (Akili, 2014; Bierema & Merriam, 2002; Dolenc, 2013; Locurcio & Mitvalsky, 2002; Marra & Pangborn, 2001; Marsh, 2017). Similarly, certain organisations use mentoring as a means of bridging the skills gap that exists between academic learning and the practical skills needed by engineering students or graduates to transition into the industry (Akili, 2017; Baldwin & Hemingway, 2010; Marsh, 2017).

### **2.3 Benefits of mentoring**

Through mentoring, the student or graduates' ability to develop professionally while acquiring the relevant practical skills is also enhanced (Akili, 2014; Bierema & Merriam, 2002; Fruchter & Lewis, 2003; Wedin, 2003). Marsh

(2017) established that mentoring promotes individual commitment to support knowledge transfer and experience sharing between the senior engineering professionals (mentors) and the engineering graduates or young engineers (mentees). Akili (2014) described the benefits of a mentoring in the following statement:

*“Through mentoring, we help students discover themselves and their potential, show them how to apply their skills and special aptitudes, and guide them in defining and pursuing their own career goals. In turn, mentoring helps mentors discover new things about themselves. They will learn just how valuable their knowledge, experience, and expertise are to their mentees.”*

According to Akili (2014), the most practicable way of ensuring that senior professionals’ intellect is tapped and enhanced to the advantage of the engineering students, graduates and the industry is through mentoring. The ability to access the relevant experience to achieve career success and excel in the industry can be achieved through mentoring. Similarly, advancing to managerial positions according to Wedin (2003) requires different skills that can also be achieved through the presence of a strong mentor.

Mentoring is an avenue through which students can be easily exposed to opportunities that will bring about the act of practical application of theoretical learning and the ability to apply academic learning in engineering practice (Akili, 2014; Fruchter & Lewis, 2003; Marra & Pangborn, 2001). An Individual’s successful career development in the workplace is hinge on the premise of being mentored (Holland, Major & Orvis, 2012). Table 1 summarises the benefits of mentoring according to literature and as evident in organisations, employees, academic environment, individuals, mentees and mentors.

Table 1. Mentoring benefits summary

<b>Organisation Benefits</b>	<b>Employee Benefits</b>	<b>Academic Benefits</b>	<b>Individual Benefits</b>	<b>Mentor and Mentee Benefits</b>
Employee induction and retention (Wedin, 2003)	Learning and career development (Wedin, 2003)	Communication skills (Akili, 2014; Fruchter & Lewis, 2003; Wedin, 2003)	Ability to mirror the characteristics of another individual with expertise (Bierema & Merriam, 2002)	Skills acquisition opportunity (Locurcio & Mitvalsky, 2002)
Human capitals channel (Marsh, 2017)	Knowledge and experience acquisition (Marsh, 2017; Wedin, 2003)	Experiential learning (Akili, 2014; Wedin, 2003)	Competent individual (Wedin, 2003)	Communication and leadership skills development (Hudson, 2013)
Graduate induction (Akili, 2014; Marsh, 2017)	Development and advancement (Wedin, 2003)	Personal and professional development (Akili, 2014).	Successful career development (Wedin, 2003)	Professional career development (Akili, 2014; Fruchter & Lewis, 2003)
Reverse mentoring (Akili, 2014; Fruchter & Lewis, 2003)	Organisational fit - (Wedin, 2003)	Encourages interactive communication with industry experts (Fruchter & Lewis, 2003)	Experience sharing and Knowledge transfer (Wedin, 2003)	Experience sharing and knowledge transfer (Bloomberg, 2014).
Intra-organisation development (Marsh, 2017)	Experiential learning (Akili, 2014; Fruchter & Lewis, 2003; Marra & Pangborn, 2001)	Research and academic support (Hudson, 2013)		Exposes mentee to industry operations (Bloomberg, 2014).

### 3. Research Methodology

Given that this study is exploratory in nature, methodology using a qualitative approach with the aid of interviews as data collection instrument was utilized. The intent is to gather the perspectives of professionals in terms of mentoring (Creswell, 2007). A semi-structured interview with open-ended questions was directed at seven purposefully recruited participants from the engineering, construction and academic industry with knowledge and experience in mentoring to gain their insight into the benefits mentoring provides (Rudestam, & Newton, 2001).

#### 3.1 Data collection process

According to Creswell (2007), when using a phenomenological research approach for qualitative study, five (5) to twenty-five (25) participants are regarded as a sufficient sample size while Dukes (1984) suggested between three (3) to ten (10) subjects. Based on this premise, the sample size for this study consisted of seven (7) well-experienced professionals from the engineering, construction and academic environment who included chief executive, managing director, an academic consultant, professor of education, associate professor, business development director and senior manager from the environment under study.

Further, according to Creswell (2007), participants for a phenomenological study should be those who have experienced or have had experience in the phenomenon being studied. All participants were purposefully selected through the purposive and snowball sampling method, (Creswell, 2007) based on their background experience in mentoring and commitment to mentoring programmes. The selected participants were professionals who meet the conditions of the study in terms of providing credible information needed to meet the study objectives. The sample size is based on the overall number of prospective participants identified.

#### 3.2 Participants

A semi-structured interview with open-ended questions was directed at seven purposefully recruited participants from the engineering, construction and academic industry with knowledge and experience in mentoring to gain their insight into the benefits mentoring provides (Rudestam, & Newton, 2001). The Participants' profiles are depicted in Table 2 and a brief description of their background follows thereafter.

Table 2: Participants' profile

Participant	Organisation	Role	Experience in mentoring
1	Professional body	Chief Executive	Yes
2	Engineering	Managing Director	Yes
3	Academic	Academic consultant	Yes
4	Academic	Professor of education	Yes
5	Academic	Associate professor	Familiar with mentoring
6	Engineering & Construction	Business Development Director	Yes
7	Academic	Senior Manager	Yes

- Participant 1 works as a Chief Executive in a professional organisation who oversees strategies, marketing and communications with members who come from a variety of segments of the engineering, the construction and academic institutions.
- Participant 2 is a managing director who designs, develops, manages and implements mentoring programmes for the engineering industry and governments within Africa and beyond.
- Participant 3 is retired, however, are involved in various contracts in a higher institution of learning. Prior to retirement, she was the executive director of a division of academic development and support, and is currently running a mentoring programme for academic staff.
- Participant 4 is a professor of education, who designed mentoring courses and also a researcher of mentoring interactions in the higher institution of learning who mentors postgraduate students.
- Participant 5 is an associate professor (Industrial psychologist) who is familiar with a mentoring process and was willing to contribute to the research.
- Participant 6 is the lead facilitator and project director with an organisation whose focus is on a formal and structured mentoring approach both nationally and internationally.

- Participant 7 is a senior manager for learning and development at a higher institution of learning with the human resources department.

### 3.3 Data analysis process

The data gathered from the interviews were transcribed verbatim and analysed through a process described by Green et al (2007). This process involved coding the data, creating categories and identifying themes (Figure 1).

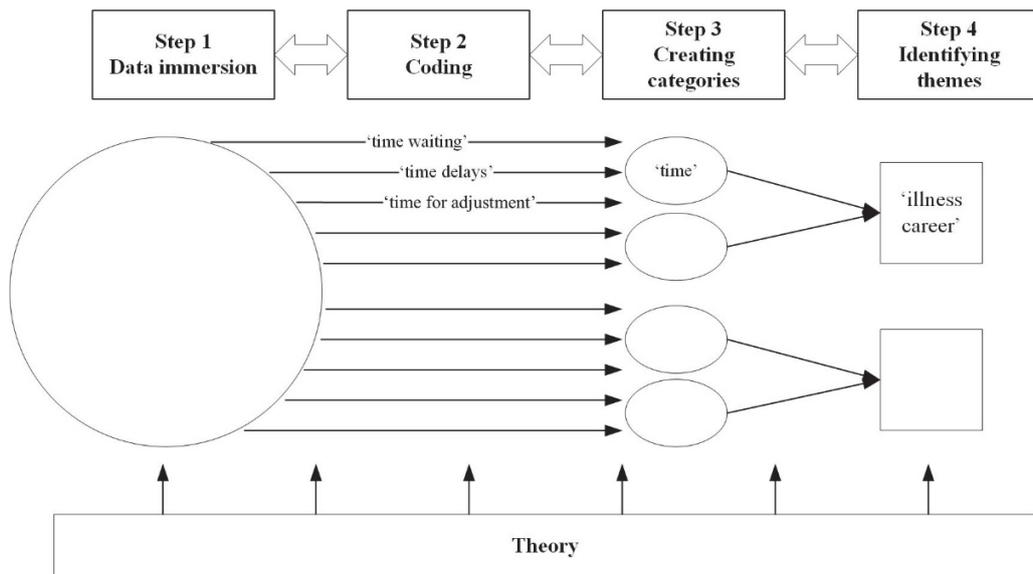


Figure 1. Steps of data analysis (Green et al, 2007)

The coding of data using the text was aligned in terms of the benefits of mentoring per category as defined in literature. Coding generated from the text with regards to the benefits of mentoring is displayed in Figure 2. Subsequently, through the created categories, themes were identified.

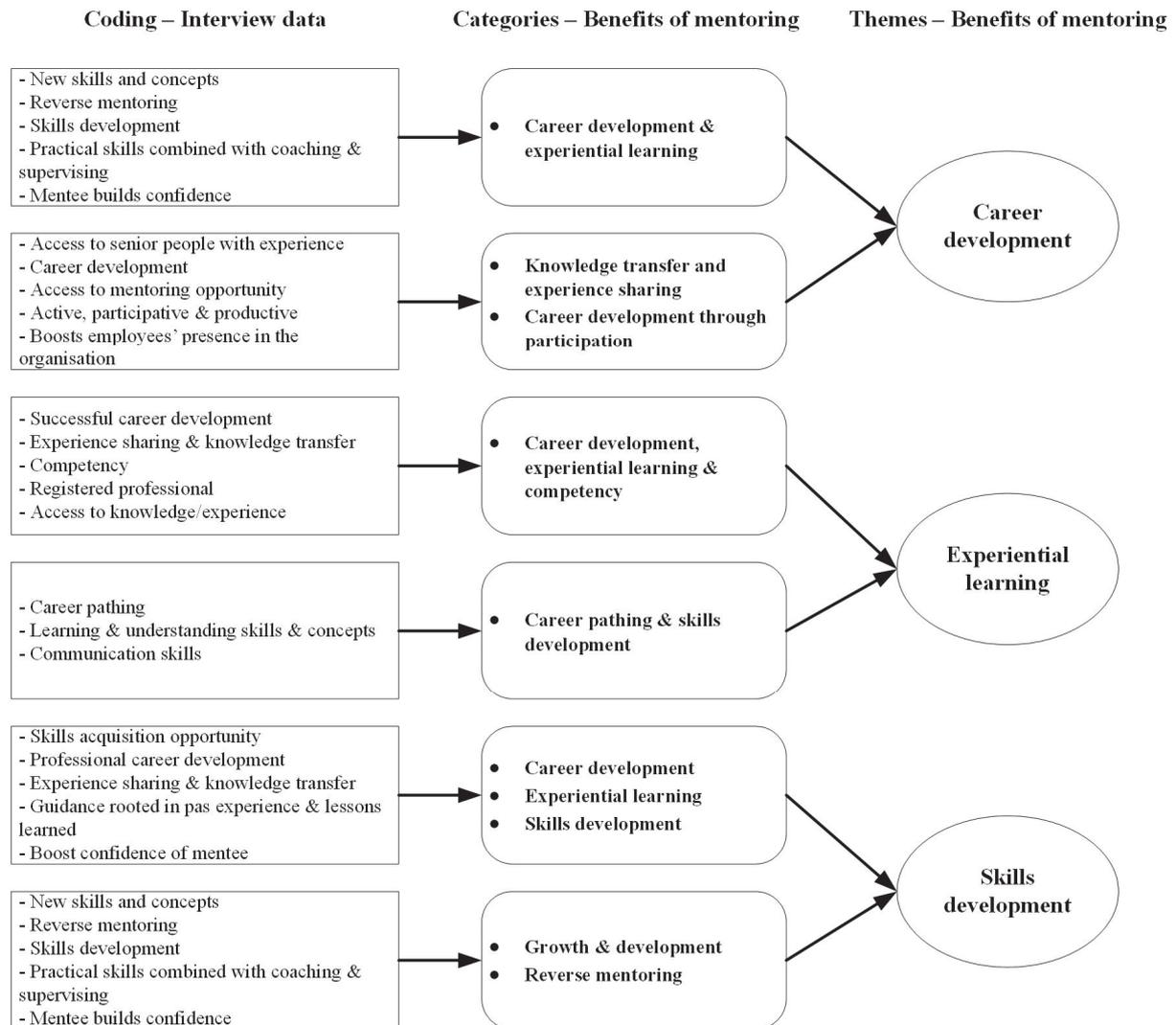


Figure 2. Findings – Benefits of mentoring

The data was coded using the text that were read in portions to align with the benefits of mentoring categories as defined in literature as interview questions was also structured to align with these categories. Examples of themes identification are presented in Table 3.

Table 3: Examples of categories creation & themes identification from text

Statement	Themes
“Mentoring is all about experiential learning. So it’s the complete opposite to university, and then it’s full of theory. It’s how do I make this practical? It’s how do I apply this in this situation?”	<ul style="list-style-type: none"> <li>• Experiential learning</li> <li>• Converting theoretical content into practical context.</li> <li>• Practical application</li> </ul>
“Being able to apply that theory into the workplace “	<ul style="list-style-type: none"> <li>• Experiential learning</li> </ul>
“Mentor assists the mentee to access opportunities to get practical skills or experiential knowledge to become well-experienced”	<ul style="list-style-type: none"> <li>• Training &amp; skills development</li> <li>• Experiential learning</li> </ul>
“Assists with learning new skills, learning new concepts and understanding skills”	<ul style="list-style-type: none"> <li>• Learning skills and concepts</li> <li>• Skills development</li> </ul>
“And it’s about tapping into the wisdom of those who have done it. You could have a mentor that you can say, “just tell me about the business”; you could be my business mentor. How does business	<ul style="list-style-type: none"> <li>• Experiential learning</li> <li>• Personal &amp; Professional development</li> <li>• Career development</li> </ul>

work? Or you could just have a life skills mentor. How do I cope with this soft skills business? How do I cope with people who are difficult to deal with; who are rude, who are impatient, how do I deal with that?"	<ul style="list-style-type: none"> <li>• Skills development</li> </ul>
"Need to plan work to take candidates towards the goal of becoming competent" "It helps with equipping the senior students in various ways to move beyond the university into the industry"	<ul style="list-style-type: none"> <li>• Career development</li> <li>• Career pathing</li> </ul>
"It will help an individual to be guided in the right direction/to receive guidance and directions with dreams and aspirations" "to get the knowledge that experienced people are willing to share (ability to get the knowledge that experienced people are willing to share)"	<ul style="list-style-type: none"> <li>• Career development</li> <li>• Experiential learning</li> <li>• Experience sharing and knowledge transfer</li> </ul>

The main themes identified explain participants' perspectives on what benefits mentoring provide as the findings of the study. In the next section, the findings of the study are presented.

## 4. Findings

The findings in this study are based on the analysis of the data gathered from the semi-structured interviews and are described in terms of the three main themes identified; (i) career development, (ii) experiential learning and (iii) skills development. These three main themes identified as illustrated in Figure 2 explain and show the participants' perspectives on what benefits mentoring provide.

### 4.1 Career development

An individual can be assisted through the process of identifying and developing a career path in a mentoring relationship or through a structured mentoring programme. This is supported by means of a statement made by a participant: "So I think the value of mentoring is firstly...we want to develop into young responsible people and ultimately you want to become a responsible young person. So, mentoring is about identifying your skills, your talents, through the eyes of other people, so that you can become a responsible citizen. That's the whole point for me about mentoring".

It is noted that all participants emphasises the importance of career development through mentoring with statements such as, (i) looking at career trajectory, (ii) to encourage participants to participate with their mentors to set up a career development plan, (iii) career development output in terms of promotion. The importance thereof is summarised by Participant 3 who stated that: "What do you have to do? What do you achieve? How you can set yourself up so that in three years' time you will be ready to apply?"

Also participant 5 stated that: (i) "They can get the feel of what is needed in the real world and that exposure could assist them in preparing themselves better", This view is supported by Participant 4 who stated that "Learning and improved work performance, also maybe career development"; "And you've got somebody there who promotes you and you begin to build a presence in the organisation. If you've got a mentor, makes an enormous difference. Suddenly people know who you are. You are not just a graduate who come in and, you've got a mentor, you've got a voice, you're put in situation to learn things. Additionally, Participant 6 emphasised; "That's the role of a mentor. It's very big".

Employee's career is significantly impacted in a positive way and developed while being a part of a mentoring programme that encourages teamwork in an organisation. This is supported by Participant 7 who expressed, "So if you want your, for instance, new people to become engaged in what is happening via a mentor maybe giving them a project or whatever the case might be, they can become engaged in what's happening, and how they can contribute, and that contribution is very important...So from that perspective, definitely you can use mentoring to help people engage. Participant 7 added, "You become engaged; you become part of the staff. You become not just a number but an active, participative, productive person."

## **4.2 Experiential learning**

Experiential learning is vital to developing of the young graduates. The ability to apply practical skills or be engaged in the workplace is also very crucial. Acknowledging this as a lived experience. Participant 7 stated that, "It's a safe environment where you can learn and apply. And secondly you bridge so many issues, problems with a mentor that you don't have to go through yourself..." Participant 1 added, "You gather wisdom from senior people. You don't have to make the mistakes they have made".

Participant 4 expressed, "So mentoring happens, you know, it brings learning, good mentoring, and you are helping the mentee to climb the mountain...You do that, you mentor because you want somebody to climb the mountain". This support the fact that experiential learning is the key to developing the needed skills necessary for the young graduates to be engaged in the workplace.

Mentoring programme organised in the workplace grants the senior people opportunity to share experience and transfer knowledge to younger people and in the process, the employee benefits. Participant 1 stated, "So the biggest benefit of mentoring, a lot of people may tell you, yeah, you know, you need senior people, you need somebody who's been through the experience and so on, no, you're going to use that to get to where you need to be." Participant 5 believes that through mentoring young graduates will be able to access the experience and expertise experiences professionals are willing to share with this statement, "I think to get the knowledge that experienced people are willing to share".

## **4.3 Skills development**

The essence of skills development is workplace performance and every skills opportunity available to the students or young graduates in the form of employability, skills, technical or discipline specific skills will provide the young graduates with the required work performance ability. Participant 4 believed that young graduate will learn from the mentor the skills and concepts require for the industry, "Learning new skills or learning new concepts, you know if you don't know something and the mentor can explain then you can learn something new, so especially concepts, understanding skills."

Participant 7 shared above statement and highlighting that the impact of mentoring in her live experience and in this scenario wherein a mentee could develop new skill in the process of learning from a mentor. Participant 7 also expresses that, "I had a mentee that said he can't speak up before people; he doesn't know how to do that. So, I matched him with a lecturer that's doing that for...I mean, that's his life. And the benefit, it was just amazing. Because this...the mentee was a clerk or an administrative person. So, to become fluent and have the self-confidence in front of people was amazing".

Added to the above statements - Participant 1 added, "Your mentor is your maestro. He's giving you gain new knowledge and better ways and lots of wisdom. So, you progress. You are teaching it. The more you teach it, the more you mentor on that aspect, the more knowledgeable you become.

Mentor and mentee are exposed to opportunities for growth and development, personally and professionally, positively impacting one another. Every participant in the mentoring relationship has an impactful experience that will bring about growth and development. Participant 6 stated, "Where all mentors-mentees come together for collaborative mentoring sessions, and this is very important because particularly for the young graduate or mentee, he/she has the opportunity to engage with, ask questions of other mentors and build relationships with other mentors. So, the mentee can have a one-to-one mentor but also got one-to-many mentors."

Throughout the interview process, majority of the participants maintained an explicit awareness of the significance of mentoring. Participants continually restated their experiences and perception of mentoring as an avenue for reverse mentoring where mentors of older generation also benefit from the relationship with statement such as, "Mentors have the practical knowledge to share with mentees, so also the mentee can teach the mentors skill on how to use new technology where the mentors struggles or are facing challenges, because technology is evolving and the younger generations are fast learners when it comes to that...in terms of technology or other aspects that the younger generation are exposed to and are equally good at" (Interview: Participant 6).

## **5. Discussion**

The themes representing the benefits mentoring provides are discussed in this section. These themes are career development, experiential learning, and skills development.

### **5.1 Career development**

Participants expressed that with the presence of a mentor in the life of a graduate, the mentor is able to identify competences that the graduate is unaware he/she possesses and guide accordingly to enable the graduate develop a successful career. This finding concurs with Holland, Major & Orvis (2012) who stated that an Individual's career development and success has been linked with the existence of a mentor in the individual's professional journey. Akili (2014) noted that through mentoring, students or young graduates are assisted and guided on how to define and pursue their career goals while Randall Wedin (2003) ascertained that mentoring will create opportunities for career development and success. The findings from this study indicated that participants believed that mentoring will assist the young graduate to define the path to navigate to achieve career goals in becoming a competent, responsible and reliable professional.

This finding on the benefits of mentoring where it is stated that the engineering and construction industry are utilising mentoring in the professional development of graduates and young engineers are also in line with findings of previous research (Baldwin & Hemingway, 2010; Locurcio & Mitvalsky, 2002; Marsh, 2017; Sandelands, Hall & Sandelands, 2009). Custovic (2015) described mentoring as an opportunity for the engineering graduates to develop a successful career.

### **5.2 Experiential learning**

Participants believed that one of the most significant benefits that mentoring provides is experiential learning. Participants believed that mentoring present graduates with opportunities of learning beyond the theory taught at school and the ability to put theory into actual practice. This finding correlates with existing literature on how mentoring presents young graduates with ability and opportunities to apply theoretical knowledge in actual practice (Akili, 2014; Fruchter & Lewis, 2003; Marsh, 2017; Wedin, 2003; Vesilind, 2001).

Akili (2014) and Marsh (2017) established that through mentoring young graduates can tap into the experience and knowledge bank of senior professionals and in the process, acquire the needed experience to advance professionally. The findings from this study indicated that the participants acknowledge that with mentoring in place, graduates can access or be exposed to experiential learning.

The participants involved in this study mentioned that graduates need an individual who can share experiences and wisdom during their interaction together. Many participants felt that a mentor has the practical knowledge to share with the mentee. This perception is supported by Marsh (2017), who established that mentoring encourages individual commitment to support knowledge transfer and experience sharing between the senior engineering professionals (mentors) and the engineering graduates (mentees)

### **5.3 Skills development**

Another significant mentoring benefit is the ability of graduates to develop the soft skills required for the industry while participating in mentoring. Participants believed that most graduates in their early years of career development always seems lost and in most cases, struggles to fit in an organisation or the institution as they lack the proficiency to apply these soft skills. Participants are of the views that with a mentoring opportunity or exposure to mentoring, graduates can transform this inability by learning and developing skills through a mentor in a mentoring relationship. This finding is consistent with existing literature that stated that the ability to develop effective communication, interaction and interpersonal skills can be achieved through mentoring (Akili, 2014; Fruchter & Lewis, 2003; Wedin, 2003).

Three of the participants are of the views that multiple mentors are very crucial in the life of the graduates because mentors will identify mentee's area of strength in terms of soft skills and guide them accordingly, and by learning new skills, learning new concepts and understanding skills, graduate's benefits from mentoring. Literature established that organisations uses mentoring or mentoring programme as a means of bridging the skills gap that exists between academic learning and the practical skills required by graduates to transition into the industry (Akili, 2017; Baldwin & Hemingway, 2010; Marsh, 2017).

In contrast, a participant felt that mentors will only be alerted to the need for students or graduates to develop these skills but that it is the student or graduate's responsibility to develop and practice the skills. Two of the participants also expressed that a lot of these skills should instead be accommodated within the study programmes or should be part of professional training.

## **6. Conclusion**

Mentoring has been established from literature to be beneficial in the area of experiential learning and practical skills acquisition. Most specifically, mentoring has been associated with career, academic, and personal development. Through mentoring, the engineering graduates have access to opportunities to acquire the needed practical skills and gather the knowledge necessary for the industry. Thus, engineering graduates are encouraged to access mentoring as senior professionals share experience and transfer knowledge to assist them in acquiring the needed practical skills.

Participants in this study gave the benefits that mentoring provides as; career development, experiential learning, and skills development. It is clear from the findings and literature reviewed that the impact of mentoring on graduates' professional and personal development can be quite significant. This study details the benefits associated with mentoring. The perspectives shared by the participants suggest that mentoring will have a significant impact on graduates' personal and professional development with resulting effects for experiential learning. The literature on mentoring is increasingly demonstrating that mentoring has significant benefits including its impact in experiential learning. Students and young graduates are the future generation of professional engineers and they depend on the senior professionals to access relevant experience.

The senior engineering professionals have a part to play in getting the students and young graduates competent. The senior engineering professionals should therefore be accessible and be willing to share experience and transfer knowledge to the younger generation. Mentoring assists students and graduates to have access to experiential learning and practical skills acquisition. A carefully organised mentoring experience or opportunity can significantly impact their experience in project based learning. Overall, the recognition and practice of mentoring in this crucial environment shows how vast and how beneficial it is.

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