

*Conceptual Paper*

## **Analysis of E-Mentoring Platform for Future Leaders' Development**

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**Abstract:** Future leaders need to be developed via a variety of techniques. Some government agencies or corporate companies have established and implemented a conventional mentoring programme to prepare a future leader for top-level management. A mentoring programme may increase productivity and occupational satisfaction based on the most recent research. Over time, it can result in the proteges of future leaders. Strong interactions among the mentor and the protege are characteristic of mentoring. Recently, a mentor and protege mutual connection via modern technology-mediated simultaneous learning has emerged as the current strategy for advancing virtual teams and leadership development inside the organisation. By analysing some of the tools, criteria, approaches, and processes of the mentoring platform using technology used by some organisations today in developing an effective future leader, this conceptual paper intends to establish a significant analysis of the review of related literature research on the subject. It does this through a technology-mediated approach and a new resilient and competitive leadership development management.

**Keywords:** Mentoring, e-mentoring, technology, leadership and future leaders.

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### **Introduction**

Mentorship programmes are often founded in learning centres where participants get one-on-one education asynchronously. In traditional mentoring relationships, proteges learn relationship (how their job connects to others) and interpersonal (listening, problem-solving, communicating, and building connections) skills (Lankau & Scandura, 2002). Mentorship can promote development (Taherian & Shekarchian, 2008). Mentored individuals may be more motivated by their work and experience new, more innovative opportunities, which benefits an organisation, reduces costs, and develops future leaders. Every organisation must implement a mentoring platform to develop future leaders for a strong and sustainable organisation. Top-level management officers must remember the need for sufficient supervision and organised training for low and medium-level personnel to develop new leaders who will soon replace them.

The advantages of mentoring an individual's instructional achievement, professional aspirations, and personal improvement are extensively acknowledged in future leaders' development (Baroudi & David, 2020). Hence, several elements are vital for valuable mentoring connections: the convenience and recurrence of interaction and communication. Technological assistance and, specifically, types of technology-mediated, which include e-mail, social media, chat groups, and virtual meetings, provide a massive capacity for empowering the mentoring approach (Edwards et al., 2021). However, more understanding must be provided on how technology can be included in the mentoring procedure to develop potential future leaders (Fusarelli et al., 2018).

Technology-mediated mentoring may give chances for leadership development via e-learning, e-coaching, or e-mentoring (Allan, 2012). Digital-mediated learning, training, and development are accessible 'anytime, anywhere.' In line with a review of the research, the findings reveal the pros and cons of e-mentoring platforms for future leader development. Mentoring is also a professional development and some career growth training (Allan, 2012). Mentorship, whether official or informal, may span months or years. Assisting newcomers to an

organisation or function, employees with particular jobs or assignments, or as part of an experienced management mentorship and coaching programme.

Notwithstanding, the e-mentoring platform is not always good without its specific problems. For instance, good utilises of online e-mentoring provide numerous demanding situations. The utilisation cost is one problem frequently mentioned in literary works. Hansman (2002a) then identified numerous cost-related financial and time issues. A cautious evaluation of the advantages and problems of e-mentoring from a particular perspective needs to be known before the system can be appropriately validated and implemented.

Other e-mentoring issues may also be related to the accessibility issue. Many academics and experts have identified the competence problem for increased accessibility for mentors and proteges via the technological platform. Nonetheless, the convenience of technology as a communication tool might be essential. As per Guy (2002), the technological gap in the social context continues to be a gap in the working settings for the mentor-protégé relationship process. Hill et al. (2003) noted that one of the significant challenges to using online technology in the mentoring process is a lack of information literacy skills; some people might need sufficient competencies in information literacy for the e-mentoring method to work for them. In the long term, competent and successful e-mentoring methods are required to develop future leaders.

E-mentoring has several challenges, including the need for in-person interaction between mentor and protégé. The use of electronic equipment may make communication difficult, leading to a significant probability of misunderstanding in a virtual environment, as was discovered by academics who investigated virtual learning (Hill, 2002). Most of the time, e-mentoring leads to more careful instruction via online contact before establishing the mentor-protégé relationship (Guy, 2002).

Undeniably, the privacy issue in a virtual world or lack of security is another limitation of e-mentoring implementation. Unlike traditional mentoring, when conversations and interactions ‘disappear’ once they have taken place, e-mentoring continues long after the first meeting (except tape-recorded). E-mentoring through e-mail, media-based, or news forums might frequently be standard recorded (Kirk & Olinger, 2003). The mentors and proteges ought to bear in mind that this issue also might want to understand in applying the equipment to get the guidance they need while decreasing the risks of using the technology (Hansman, 2002a).

Besides, training is a far more significant issue related to many factors of the mentoring procedure. Numerous pieces of literature have been written in guides to facilitate the mentoring process (Brown, 2001). Current studies are carrying inquiry into several the presumptions traditionally related to mentoring; for example, the parental function of a mentor towards protégé and attempt to inspire more excellent inclusive method onto the procedure, once each the mentor and protégé can gain an advantage through learning collectively.

Locating a suitable approach to preserve the mutual connection is another challenge related to e-mentoring (Brown, 2001). From in-person mentoring, maintaining touch is vital at the start and all across the mentoring process. There is an extra demanding situation with e-mentoring on maintaining contact. An e-mail text, media text or news forum display may be more excellent without difficulty disregarded than a person standing within the doorway. Providing strategies and incentives for persevering with the mentor-protégé relationships is crucial. Hence, this study aims to examine some literature studies and current issues that discuss the role of e-mentoring mechanisms in developing future leaders for an organisation.

## **Method**

This study utilised document analysis to investigate the e-mentoring platform to develop future leaders. Due to the controlled and practical nature of documents, document analysis is a useful and efficient technique for data collection. During the research process, practising viewing and evaluating documents often is common.

## **Results and Discussion**

### **1. Mentoring**

The researchers have employed a variety of approaches to explain mentoring, as per Bozeman and Feeney (2007). However, they frequently stress that it entails the casual sharing of knowledge, human capital, and emotional support that the beneficiary receives to advance their profession, skill set, or career progression. As per Bozeman and Feeney (2007), mentoring encompasses informal interactions between two groups: a mentor group with more excellent critical knowledge, awareness, or organisational experience and a protégé group with much less

expertise. The critical distinctions between mentoring and training are that mentoring often has a more informal tone, employs a one-on-one approach, and could provide professional and emotional support.

From Adams and Crews (2004) and Hansman (2002b), the career development of employees is the main benefit of enforcing any mentoring method. While from Single and Single (2005), e-mentoring tools, like traditional mentoring, have been developed to provide early support, which may help new hires more easily integrate into the new culture of an organisation. According to empirical research, mentoring provides a number of professional advantages, along with the growth of professionalism (Headlam-Wells et al., 2005), better personal communication skills (Adams & Crews, 2004), and better-written communication skills (Brown & Dexter, 2002) all of which are crucial for an organisation's long-term development of future leaders.

Mentoring has grown increasingly critical in organisations since people have often proven to be unpaid workers who devote their time to their jobs rather than their employers (Bierema & Hill, 2005). A significant portion of earlier findings has concentrated on the value of mentoring for salary increases, chances of promotions, work performance, job satisfaction, professional autonomy, and improvement of leadership qualities (Ensher & Murphy, 2011). The organisational outcomes may have advanced through mentoring, which includes employee retention, communication processes, and organisational culture (Ensher & Murphy, 2011). Mentoring also includes job satisfaction and work dedication to an organisation (Ensher & Murphy, 2011).

Chandler et al. (2011) found that although thorough research on the benefits of mentoring, mentoring strategies are still mostly unexplored. Research on the mentoring process often emphasizes career-focused activities and psychosocial behaviours. Mentorship scales, for instance, have concentrated on professional tasks performed by mentors, such as counselling, covering the protege, performing obligations, and exposing the protege to critical work. Scales indicate how well a protege can recognise a mentor as a friend, a counsellor, a good example, and a role model concerning psychosocial movements (Chao et al., 1992). Those actions and functions often go together. However, they also make clear a wide range of standards for maintaining mentoring relationships.

The goal of mentoring, according to definitions, is to mediate the development or facilitation of a helping relationship with a significant number of different people. This idea stems primarily from the social exchange theory, which sees the occurrence, at times, a swap of elements based on the relationship between mentors and proteges (such as help, information, etc.) (Raabe & Beehr, 2003). As per Moodie (2005), several viewpoints have shown that mentoring relationships are essential for boosting young people's self-confidence. Mentoring relationships for youth should provide practical aid throughout the vocational training process, which may help increase novitiate completion rates (Dowling et al., 2005).

There may not be a clear definition of mentoring in the literature that can satisfy the rigorous settlement requirements (MacCallum & Beltman, 1999). The term 'mentoring' is used by Pawson (2004, p. 1) to describe a variety of acts, like 'helping, coaching, tutoring, counselling, sponsoring, sharing experience, and mutual learning.' As per Henry (2006), mentoring is often seen as a circumstance that evolves into a strong 'relationship' rather than as something a mentor "done" to a protege. As per MacCallum and Beltman (1999, p. 9), 'mentoring is about connections', and the impact of mentoring relies on the effectiveness of the interactions between mentor and protege (Rhodes, 2002).

There may be a widespread trend within the literature to conceptualise mentoring as guiding a more youthful or much less skilled individual with the aid of an older and mature person. This connection is probably recognised in the conventional or 'traditional' perspective of mentoring (MacCallum & Beltman, 1999) as well characterised as both hierarchical and deficit-based, which assumes that the mentor has a few elements consisting of age, experience, capabilities, the financial or social advantage in which the protege inadequacy. Deficit-based mentoring applications have accomplished form of a high level of reputation and also function significantly throughout many specific aspects, from schools to workplaces.

## 2. E-Mentoring

When in-person connection may not be possible, as per O'Neill et al. (1996), e-mentoring refers to using email or technology meeting formats to enhance a mentoring relationship and training. In addition, Single and Muller (2001) termed e-mentoring as a device interaction involving a higher experienced mentor and a lesser experienced protege to assist the protege in becoming a successful professional. Later, this distinguishment based on e-

mentoring takes place in an official application where learning and training can be made for mentors, and the results are assessed.

Multiple terms, including telementoring, cybermentoring, digital mentoring, and virtual mentoring, all refer to what we now call "e-mentoring." In line with Adams and Crews (2004), telementoring can include more extraordinarily skilled people sharing their professionalism with a new practitioner or lesser professionalism which is proteges in assisting the protege in acquiring a role and or advantages access into the mentor's world in the future. Via the usage of email, online, social media and meeting equipment, those digital methods can emerge as essential belongings in reaching this intention. E-mentoring is still pretty recent but is not well-researched (Headlam-Wells, 2004).

Mentors are commonly at higher levels in their profession and instruct a protege frequently within an initial level (Baugh & Scandura, 1999). Then, Single and Muller (2001) described e-mentoring as the subsequent connections that are set up among a more extraordinary experienced person (mentor) and fewer professional or inexperienced person (protege); broadly speaking, the usage of digital communications, and that is supposed to expand and develop the capabilities, understanding, self-belief, and cultural knowledge of the protege to assist them to be successful, at the same time as additionally supporting in the development of the mentor.

With mixed mentoring, mentors and proteges may integrate in-person and online interactions (email, social media, etc.) for direct and indirect communication (Murphy, 2011). Bang and Luft (2013) identified four mixed models in which individuals engage in in-person interactions (such as lunch conferences, focus group discussions, or technology training classes) and virtual reality interactions (such as virtual human conferences in virtual life, internet contextual content exchanges, and live streaming video) to increase the understanding, competencies, and capabilities of newbie basic-level technology users.

E-mentoring may occur via various channels, including e-mail, phone calls, in-person meetings, and other kinds of communication. Many in-house mentorship programmes include e-mail support. E-mail, chat rooms, and online meetings, like Skype, Webex, or other professional mentoring services with excellent data security, may be used for e-mentoring. Technology that allows online connection enables busy managers and leaders to function as mentors while working full-time and travelling the world. Technology also promotes mentor-protege interaction in e-mentoring. E-mentoring might as well could improve occupational, psychosocial, and remodelling abilities. Advice and guidance may be discussed online from an occupational perspective. Psychosocial perspectives include online discussions about life that benefit both mentor and protege. Digital role modelling may be done via personal blogs, social media, and digital forums for friends.

Virtual digital learning technology relies heavily on management structure knowledge. Web 2.0 software and equipment may let mentors and proteges connect easily. As per Harris and Rea (2009), Web 2.0 includes an increase in user-produced content, information and content sharing, participatory effort, modern approaches to people's engagement with internet-formed programmes, and the utilisation of the internet as a socialisation mechanism in creating, modifying, and understanding content. Web 2.0 technologies arose from the expansion of other technologies, such as Wikipedia, which allows anyone to edit content with up-to-date facts; blogs, which allow people to participate in question-and-answer forums; and podcasts, which allow people to download media files using RSS feeds, including tunes and audiobooks (e.g., YouTube). Social media networks like Facebook, WhatsApp, and Twitter allow users to engage without geographical boundaries.

The types of learning structures that could be employed to achieve e-mentoring successfully are distinct components for assessment. Mechanical tools, particularly forms of computer communication like e-mail, chat rooms, social media, and virtual conferencing, have the potential to enhance the e-mentoring method. Indeed, even though such hardware already exists and might improve e-mentoring, those who lack the necessary inventive skills or technology to participate in an e-mentoring setting seem indifferent to such hardware. The computerised isolator is described as a domestic computing niche among white, wealthy, and racial or economic minorities, as well as the poorest people. Notwithstanding innovation being helpfully accessible, there are, in any case, a vast number of individuals who cannot secure a computer, much less get to e-mentoring could occur.

E-mentoring innovation acknowledges the lack of a linguistic body. Hamilton and Scandura (2002) argued that language comprehension is critical in computerised encounters since tone and body language are missing. The absence of in-person interaction may emphasise compatibility over control. Using webcams or emoticons, mentors and protege may improve their connection. Emoticons with motions and happy smiles may explain questionable signals, making people doubt sarcasm's authenticity. When listening to an attestation, trust the

sincerity of irony in the voice. Without paralinguistic clues in an e-mail, it may not be easy to discern humour (Kruger et al., 2005). How something is expressed might affect its effectiveness, leading to trust problems and communication misunderstandings in a digital environment.

### 3. Leadership

Diverse definitions and views of leadership have been featured in various publications such as mythology, stories, religious texts, notable literature, and social sciences literature (Bass & Bass, 2008). Fleishman et al. (1991) found 65 frameworks for categorising leadership concepts in their review of 33 articles encompassing almost 50 years (1940-1986) in psychology, management, and military studies. In their argument of these challenging leadership views, the authors recognised key trends and resources of variety among those category structures, which may come from concerns with varied theoretical frameworks and research approaches. Furthermore, the authors emphasised that they may have overlooked other category structures in the extensive literature, which has only kept expanding since their study. In the most recent literature on leadership principles and activities, Northouse (2010) highlighted four elements significant to leadership excellence:

- Leadership is a procedure that entails the prevalence of a bi-directional activity among leaders. These individuals have interaction with leaders and followers, the ones in the direction in whom leadership is directed.
- Influence is an important precondition for the existence of leadership.
- Leadership occurs in a context where a leader influences a group of others who share a common reason.
- Leadership involves an interest in the pursuit of mutual goals.

Northouse (2010) termed leadership as encouraging a group to accomplish a shared goal. An opposite to the trait perspective of leadership, which makes a speciality of inborn traits that make an effective leader, the procedure perspective importantly displays the notions that (a) any person can reveal leadership behaviours to various degrees concerning others and (b) that such behaviours may be learned (Northouse, 2010). In particular, in the context of the counselling profession; leadership, as outlined by Sweeney (2012):

*“Those actions by individuals in professional counselling that contribute to the realisation of our individual and collective capacity to serve others competently, ethically, and justly as helping professionals. This leadership can be found in all settings and at all levels from local through international service to others needing and desiring our assistance.”*

(Sweeney, 2012, p. 5)

This specific definition of leadership was selected in light of Bass and Bass (2008) suggestion for scholars to choose a definition that must align with the methodological and significant elements of leadership in which one is interested. Sweeney's (2012) definition surmises that leadership may be learned; is rooted in a preference for serving others; happens in the personal and relational stages; and creates change for the advantage of customers, the career, and broader communities.

### 4. Future Leaders' Development

Many organisations rely on a traditional written candidate leader evaluation followed by an interview with an oral assessment panel to choose the best future leaders for the organisation. This approach usually includes minimal evaluation of the candidate's readiness or attitude toward management. Promotional tests typically focus on rules and techniques, legal standards, and management protocols rather than supervisory or self-management skills that they will require in the real-world job setting they will be working in shortly. Given that a manager will meet with their departmental units at least once per week, if not daily, many organisations offer no real training or testing in meeting administration. Most managers or directors will have a set timetable in the basket. Some organisations may not provide special training or testing on communicating effectively in writing, assigning roles, or managing activities using this strategy. Many managers will instead be required to advise, reprimand, or instruct subordinates. However, many organisations lack formal training or testing in this area, although staff development is an important element of a manager's job. Alternatively, the traditional evaluation approach is fundamentally characterised by who passes a standard written exam, largely of items they already need to

understand as an officer, followed by a subjective interview. During the interviews, managers focus on what they need to hear while candidates list their capabilities.

New managers must attend management training a year after being promoted. Even if preparation is crucial, it has nothing to do with the prepared decision technique that proves a new manager or employer's suitability. For instance, public sector employees must evaluate how to extend their promotions using the fundamental knowledge, skills, and capabilities identified as preferred by future managers. Assessment centres have long been able to predict long-term success in agency and high-level jobs. Evaluation centres help determine future leadership skills. Using inclusive assessments and a leadership enhancement technique. Training on leadership problems and psychometric disobedience may give the applicant and the organisation a clearer view of what the candidate can or cannot achieve and where his or her strengths and weaknesses lie. From a different standpoint, changing from traditional to technology training or mentorship is vital to create more good future leaders.

### 5. Mentoring Process in The Context of Technology Integration

Swan and Dixon (2006) mentioned that mentoring had been discovered to triumph over a number of the regular obstacles to technology homogenising. Besides, Franklin et al. (2001) discovered that workers who had discovered to combine technology with a mentoring process gained advantages without having difficulty in overcoming obstacles which consisting of locating a long time to integrate technology, a long time to get to know how to troubleshoot issues with technology in mentoring and getting a long time to know how to combine technology into an actual environmental workplace. For instance, Polselli (2002), on the other hand, discovered, based on his research of 139 teachers who conducted mentoring assistance, stated they gained enhancements in comfort zones when using technology in work applications.

E-mentoring is not always the same as conventional mentoring concerning setting up and preserving a connection. Human resource development (HRD) experts may want to consider numerous problems when performing an e-mentoring application. These comprise seeing mentoring as a deep-rooted professional advancement component, preparing and creating mentors and proteges, coping with the strategy, helping a mixed culture bunch of labourers, and picking up an understanding. E-mentoring is increasingly considered a vital component of e-learning and lifetime instruction in organisations, contributing to that reason (Hansman, 2002a). Learning is becoming more computerised in today's high-tech, globalising view of people. E-mentoring holds an exceptional potential for a low-cost, highly effective, and globally applicable aspect of career advancement that validates a variety of underutilised workplace circumstances.

Organisations that want to launch an e-mentoring initiative may need to offer training for mentors and proteges and a means of communication. Acknowledging work-in-progress may be a crucial assurance for HRD when introducing formal e-mentoring platforms. For instance, Kasprisin et al. (2003) using a control research group experimental design, randomly assigned half of the group to e-mentoring. Undergraduate e-mentors on MentorNet completed case-based tasks. The other group had non-compulsory preparation. The whole training group e-mails their e-mentors more often, leading the authors to suggest that its effects have been applied to relationship training.

Training has to be indeed taken into consideration in imposing e-mentoring. However, HRD experts need to not forget about more systemic and structural elements which can affect e-mentoring, consisting of the culture, the structure, assistance in the mentoring program implementation, and conceivable outcomes for the e-mentoring to influence proteges' careers development. In a few other observations, Salmon (2000) has proposed a universally identified as five-level of e-mentoring demonstration. Level 1 is an accentuation on getting to the mentor and inspiration to participate. Level 2 accents on cultivating online socialisation, whereas Level 3 is related to online socialisation through data trade-off. Level 4 incorporates information creation in which considerations are defined, shared, and adjusted. While level 5 is created in which the protege may challenge the mentor, as they were able to test a modern understanding instead of seeking from the mentor.

Although other approaches may be used, the mentoring approach described in Salmon's (2000) literature seems to be the most promising one. Moreover, this model indicates a principal improvement as much as development, even though an inaccurate belief regarding mentoring is that development starts simultaneously with mutual connections. Every organisation should recognise this developmental procedure and offer some systematic layout to assist it. The steps may also want to be undertaken to control the e-mentoring procedure and make certain such connections practical and durable. Growing connections may be hard in any circumstance.

However, the difficulties seem to be increasing as digital links proliferate. As per Purcell (2004), an encouragement for improving the effectiveness of e-mentoring is to start by establishing mentoring relationships over the phone or in-person to develop a firm basis. The components and ambitions of the relationships should be discussed between the mentor and protege. Each party must ensure communication problems are found and removed as e-mentoring develops. To forge relationships, both the mentor and the protege must depend on a shared obligation, and the protege must be prepared to commit to their physical well-being and personal development. Conflicting expectations regarding return time and participation, for instance, became the main challenge in the success of the application when it was seen that online mentoring between instructors and students and fear of relying on specialists occurred (Harris, 1996).

E-mentoring has the opportunity to better assist multicultural personnel via offering access to mentoring that could, in any other case, not exist for females, individuals' skin colour, and diverse minorities. E-mentoring may prevent poor connections and discomfort in new mentorships (Kasprisin et al., 2003). As opposed to that, an e-mentoring platform might be able to stand the connectivity advantages of the internet in offering good mentoring opportunities, which might accelerate the creation of connections among individuals of various backgrounds (Kasprisin et al., 2003). In the end, e-mentoring is capable of constructing, capturing, and sharing an understanding of the world of expertise society. Developing and disseminating understanding could be a foundation of the learning organisation, and e-mentoring gives some sensible and less expensive approaches to conducting those actions.

#### 6. E-Mentoring Process Based on Case Study Of 'Women ICT Literacy and Career Path Development Via Online Services' from South Korea

As per Kang et al. (2012), the Ministry of Gender Equality and Family in South Korea has employed online mentoring projects, such as WomenNet, since 2002 to expand ICT empowerment, career orientation, and leadership development among underprivileged women. Since 2004, Korea Advanced Institute of Women in Science, Engineering, and Technology (KAI-WISET), a technology and internet-based mentoring programme have assisted in advancing female engineers, scientists, entrepreneurs, and leaders. Since 2008, Korea National Open University (KNOU) and Hanyang Cyber University (HYCU) have supported students using online e-mentoring platforms to reduce undergraduate college students' dropout rate and increase employability after graduation. These individuals are referred to as the next generation of prospective future leaders.

For the specific case study of this research, from the studies encountered by mentoring managers in the KAI-WISET changed the cycle by grouping a few levels and including the preparation levels (Kang et al., 2012). Table 1 illustrates the four steps of online mentoring: preparation, matching, mentoring, and ending a connection. Members of a mentoring application are recruited from an initial level, inside the preparation level. Anyone who would rather be a mentor or a protege. An interested and eligible candidate for a mentoring application can try it. The interested participant members are then decided on and will be given important notice if they successfully become members of the respective e-mentoring programs.

Second, the matching level may be completed in record time. In any situation, the efficacy of mentoring is often dependent on matching a protege with a suitable mentor. The remark, "you should never begin mentoring someone if you lack the skills to guide your protege effectively," emphasises the importance of flawlessly partnering on a mentoring pick (Pieper, 2004). Throughout this step, proteges explore potential mentors in their area of specialisation and try to get a particular mentor to help them. The mentor must then determine whether or not to pursue the appeal. To previous research, as per Allen et al. (2006), it is critical for the mentoring program's effectiveness that participants play an active role within the wonderfully coordinated control. If a protege cannot identify a suitable mentor, digital and manual coordination via a digital information framework might have been helpful. (Jin & Park, 2008).

Third, processing mentoring action occurs as part of the mentor role. This could be an excessively detailed plan for the programme. As mentoring programmes gain traction, it is becoming more important to provide participants with either an offline or online focus. Getting off the right foot is much easier for students guided by an experienced mentor. In addition, it is crucial to highlight the mentoring approach of coordinated mentor and protege by signing a mentoring agreement. Consent from the mentor and protege is required for a viable

mentoring programme. They pick the kind and scope of their mentoring relationship, relying on mentoring expertise to develop trustworthiness and maximise outcomes. An internet mentoring programme should provide a one-on-one chat space where the mentor and the protege may work through several challenges.

For the final level, ending the relationships, individuals distribute a report showing the advance of the mentoring exercises. At long last, a mentoring manager assesses the mentoring program. Researching is taken into consideration before completing the mentoring program. They are also crucial since they offer essential information to determine the program's outcomes and accumulate comments for a record of the evaluated results, which can assist the following mentoring program in the future (Kweon et al., 2010).

Table 1. Main features of each level of e-mentoring programs

Levels	Features	Offline/Online
Preparing	Recruiting participants	Both
	Applying mentoring program	Online
	Selecting participants and giving notice	Offline
Matching	Searching mentor for proteges and making a request	Online
	Accepting a member as a protege	Online
	Automatic matching	Online
	Matching by mentoring coordinator	Both
Be mentoring	Orientation for mentors and proteges	Both
	Setting a mentoring agreement	Both
	Communicating	Both
	Providing information	Online
Ending relationships	Conducting report	Online
	Evaluation	Online

Source: Kang et al. (2012)

Table 1 indicates the vital function of every level within the mentoring program. In this study, since the researcher can cope with a mentoring platform with assistance from internet mentoring, categorising the specific features via either offline, online, or two is necessary. Despite e-mentoring may overcome distance and time, it is still challenging to create a genuine connection among a mentor and a protege. The mentoring platform's success is determined by how effectively the mentor and protege can discover points of agreement and communication on a specific issue and maintain a mutual connection after the mentoring session is completed (Sproull & Keisler, 1986). Because of this, a systematic procedure is required to facilitate the e-mentoring platform for leadership development in the future in particular. a

## 7. Significance Of E-Mentoring

There are numerous benefits related to e-mentoring. Possibly one of the predominant apparent advantages of the e-mentoring platform can arise whenever and wherever (Kirk & Olinger, 2003). In other words, the possibility of minimising time and place (for example: geographical) constraints give some of the numerous benefits that can be achieved. In line with Guy (2002), the protege might have some specific questions at the end of the day. Instead of holding up the question to be addressed the next following time in-person meeting with a mentor in some distant place, the protege may use a social media (for example, WhatsApp, Facebook Messenger and others) site to post a query or send an email or ask the question on an internet bulletin board. With today's technology, the mentor may respond to a particular question whenever it is convenient for them to do so.

They were intently related to them whenever and wherever the benefit is that e-mentoring can makes a persevered professional improvement more extraordinary with ease to be had and, in some examples, feasible (Boyd & Jackson, 2004). Continuous leadership and career development through e-mentoring can allow peak performance no matter the level of one's profession (Sevilla & Wells, 1999). This can add more value to both parties using technology from this angle. Mentors do not just provide vital learning and guidance, but they can also teach each other with the protege, such as learning to use the new technology, which may just be starting to utilise the tools.



Furthermore, conventional in-person mentoring relationships may boost a few capabilities, which seem to gain for the new mechanism of e-mentoring usage. Improved writing abilities are one aspect of skill development usually recognised in real working environments (see Brown & Dexter, 2002; Fodeman, 2002, for more detail). Rea (2001) also noted that e-mentoring might help enhance basic communication skills. Because communication is typically expressed in text, it is even more important to know what is said and how it is likely to be understood. This may help to overcome misinterpretation and misunderstanding in a physical conversation. Finally, e-mentoring may help to increase collaboration (Fodeman, 2002). Teamwork may be improved in terms of time and location. This method of improving teamwork: is the capacity to involve those who may not have been included before (for instance, one team member might be in Canada at the same time as some others may be in New Zealand and yet others in Malaysia).

Another benefit of using e-mentoring is increased mentors' accessibility to proteges. Accordingly, online technology can allow a solid mutual connection among mentors and proteges no matter their races, genders, physical capabilities, and different personal settings. This can elevate equalitarianism which can interrupt the partitions around sociocultural barriers, growing to get admission for all to be included within the mentoring system (Hansman, 2002c).

E-mentoring grasps the capability to rethink a mentor from a conventional mentoring, more astute specialist to an individual who can offer help in a setting in which age and long involvement might not be straight absent clear to the protege. Usually, an advantage is that an individual with more youthful people might also have a different experience in a particular aspect. However, this could stamp down due to their ages. Additionally, e-mentoring can also move the mentor's understanding base or create more well-educated diversity among both parties. Johnson-Bailey and Cervero (2002) found it challenging to identify the proteges. Mentors and protege may be able to "understand" one another in the future (Hansman, 2002c).

While a mentor-protege relationship is conventionally a one-on-one direct basis connection, the procedure of e-mentoring is still able to assist expand the perception of a learning group into the leadership within the working environment. Elevated admission and simplicity related to e-mentoring could make the process extra effortlessly engaged through many networks as a consequence of fortifying all studying (Riel & Fulton, 2001).

## Conclusion

Mentoring helps develop future leaders. We cannot ignore technology's influence in determining our destiny as a society. Technology has entered the 21<sup>st</sup> century, and organisations must boost its utilisation to encourage innovation and growth in the workforce. E-mentoring may be a revolutionary tool for synchronous and asynchronous knowledge transmission via e-mail, social media, live-streaming video sessions, and other digital methods. Realistic e-mentoring may aid social media users. E-mentoring improved scientific management awareness. E-mentoring may help increase knowledge transmission, particularly for young proteges. Digital technologies nowadays can effectively delegate on development of those employed in more modern and interesting approaches. The potentialities of e-mentoring are vivid, but it may be within its limitations. An extension of comprehensive studies is needed if we wish to completely apprehend the opportunities (and downfalls) related to e-mentoring. Typically, the literature on e-mentoring displays the most effective exploratory undertakings into this, a primary driving force for a career and reasonable expectancies for future leadership development among the young generation today. Nonetheless, plenty needs to be done to ascertain the one element of the digital medium that precludes and cultivates a proper mentoring mutual connection.

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## References

- Adams, G., & Crews, B. T. (2004). Tele mentoring: A viable tool. *Journal of Applied Research for Business Instruction*, 2(3), 1-5.
- Allan, B. (2012). Does E-Mentoring Offer New Opportunities for Management and Leadership Development? *Singapore Management Review*. 34(1). Singapore Institute of Management.

- Allen, T. D., Eby, L. T., & Lentz, E. (2006). Mentorship behaviors and mentorship quality associated with formal mentoring programs: Closing the gap between research and practice. *Journal of Applied Psychology, 91*(3), 567-578.
- Bang, E., & Luft, J. A. (2013). Secondary science teachers' use of technology in the classroom during their first 5 years. *Journal of Digital Learning in Teacher Education, 29*(4), 118-126.
- Barker, P., Monks, K., & Buckley, F. (1999). The role of mentoring in the career progression of chartered accountants. *The British Accounting Review, 31*(3), 297-312.
- Baroudi, S., & David, S. A. (2020). Nurturing female leadership skills through peer mentoring role: A study among undergraduate students in the United Arab Emirates. *Higher Education Quarterly, 74*(4), 458-474.
- Bass, B. M., & Bass, R. (2009). *The Bass handbook of leadership: Theory, research, and managerial applications*. Simon and Schuster.
- Baugh, G. S., & Scandura, T. A. (1999). The effective of multiple mentors on protégé attitudes toward the working setting. *Journal of Social Behavior & Personality, 14*, 503-522.
- Bierema, L. L., & Hill, J. R. (2005). Virtual mentoring and HRD. *Advances in Developing Human Resources, 7*(4), 556-568.
- Boyd, A. M., & Jackson, M. L. (2004). An effective model for rapid skills acquisition through a simulation based integrated learning environment. *Journal of Educational Computing Research, 30*(1-2), 1-21.
- Bozeman, B., & Feeney, M. K. (2007). Toward a useful theory of mentoring a conceptual analysis and critique. *Administration and Society, 39*(6), 719-739.
- Brown, B. L. (2001). *Mentoring and work-based learning. Trends and Issues Alert, 29*. Columbus, OH: ERIC.
- Brown, R., & Dexter, S. (2002). E-mentors: Connecting caring adults and kids through e-mail. *TechTrends, 46*(6), 60-63.
- Chandler, D. E., Kram, K. E., & Yip, J. (2011). An ecological systems perspective on mentoring at work: A review and future prospects. *The Academy of Management Annals, 5*(1), 519-570.
- Chao, G. T., Walz, P., & Gardner, P. D. (1992). Formal and informal mentorships: A comparison on mentoring functions and contrast with nonmentored counterparts. *Personnel Psychology, 45*(3), 619-636.
- Dowling, N., Clarke, D., Memery, L. & Corney, T. (2005). Australian apprentices and gambling. *Youth Studies Australia, 24*(3), 17-23.
- Edwards, C., Gregory, L., & Hardie, L. (2021). Setting up a Pilot Peer Mentoring Programme in the Online Environment. *Journal of Rights and Justice, 2*, 7-17.
- Ensher, E. A., & Murphy, S. E. (2011). The mentoring connections challenges scale: The impact of mentoring stage, type, and gender. *Journal of Vocational Behavior, 79*(1), 253-266.
- Fleishman, E. A., Mumford, M. D., Zaccaro, S. J., Levin, K. Y., Korotkin, A. L., & Hein, M. B. (1991). Taxonomic efforts in the description of leader behaviour: A synthesis and functional interpretation. *Leadership Quarterly, 2*(4), 245-287. [https://doi.org/10.1016/1048-9843\(91\)90016-](https://doi.org/10.1016/1048-9843(91)90016-)
- Fodeman, D. (2002). Telementoring. *Technology and Learning, 23*(4), 28-30.
- Franklin, T., Turner, S., Kariuki, M., & Duran, M. (2001). Mentoring overcomes barriers to technology integration. *Journal of Computing in Teacher Education, 18*(1), 26-31.
- Fusarelli, B. C., Fusarelli, L. D., & Riddick, F. (2018). Planning for the future: Leadership development and succession planning in education. *Journal of Research on Leadership Education, 13*(3), 286-313.
- Guy, T. C. (2002). Telementoring: Sharing mentoring connections in the 21<sup>st</sup> century. In C. A. Hansman (Eds.), *Critical perspectives on mentoring: Trends and issues* (pp. 27-35). Columbus, OH: ERIC.
- Hamilton, A. B., Scandura, A. T. (2002). Implications for organisational learning and development in a wired world. *Organisational Dynamics, 31*(4), 388-402.
- Hansman, C. A. (2002a). Mentoring as continuing professional education. *Adult Learning, 13*(1), 7-8.
- Hansman, C. A. (2002b). *Critical perspectives on mentoring: Trends and issues*. Columbus, OH: ERIC.
- Hansman, C. A. (2002c). Diversity and power in mentoring connections. In C. A. Hansman (Eds.), *Critical perspectives on mentoring: Trends and issues* (pp. 39-48). Columbus, OH: ERIC.
- Harris, J., with O'Bryan, E., & Rotenberg, L. (1996). Practical lessons in telementoring. *Learning and Leading with Technology, 24*(2), 53-57.
- Harris, L. A., & Rea, A. (2009). Web 2.0 and virtual world technologies: A growing impact on IS education. *Journal of Information Systems Education, 20*(2), 137-145.

- Headlam-Wells, J. (2004). Mentoring for aspiring women managers. *Gender in Management*, 19(4), 212-218.
- Headlam-Wells, J., Gosland, J., & Craig, J. (2005). There's magic in the web: E-mentoring for women's career development. *Career Development International*, 10(6/7), 444-459.
- Henry, N. (2006). *Mentoring myths and tips*, The Resource Center. <http://nationalserviceresources.org/mentoring-myths>
- Hill, J. R. (2002). Strategies and techniques for community building in Web-based learning environments. *Journal of Computing in Higher Education*, 14(1), 67-86.
- Hill, J. R., Wiley, D., Nelson, L. M., & Han, S. (2003). Exploring research on Internet based learning: From infrastructure to interactions. In D. H. Jonassen (Eds.), *Handbook of Research on Educational Communications and Technology* (2nd ed., pp. 433 – 460). Mahwah, NJ: Lawrence Erlbaum.
- Jin, H. L., & Park, C. J. (2008). Personalised Mentor/Mentee Recommendation Algorithms for Matching in e-Mentoring Systems. *The Journal of Korean association of computer education*, 11(1), 11-21.
- Johnson-Bailey, J., & Cervero, R. M. (2002). *Cross-cultural mentoring as a context for learning*. *New Directions for Adult and Continuing Education*. 96, 15-26. San Francisco: Jossey-Bass.
- Kang, M., Yoo, Y. R., & Park, Y. (2012). Analyzing online mentoring process and facilitation strategies. *Procedia-Social and Behavioral Sciences*, 46, 5158-5162.
- Kasprisin, C. A., Single, P. B., Single, R. M., & Muller, C. B. (2003). Building a better bridge: Testing e-training to improve e-mentoring programmes in higher education. *Mentoring and Tutoring*, 11(1), 67-78.
- Kirk, J. J., & Olinger, J. (2003). *From traditional to virtual mentoring*. Washington, D.C: ERIC.
- Kruger, J., Epley, N., Parker, J., & Ng, Z. (2005). Egocentrism over e-mail: Can we communicate as well as think? *Journal of Personality and Social Psychology*, 89(6), 925-936.
- Kweon, J. H., Son, M. Y., & Kim, H. H. (2010). *Development of Monitoring and Operating Strategy for On/Offline Mentoring*. Institute of Distance Education of Korea National Open University.
- Lankau, M. J., & Scandura, T. A. (2002). An investigation of personal learning in mentoring connections: Content, antecedents, and consequences. *Academy of Management Journal*, 45, 779–790.
- MacCallum, J., & Beltman, S. (1999). *International year of older persons mentoring research project*, Centre for Curriculum and Professional Development. Murdoch University, Perth.
- Moodie, M. (2005). *Building an evidence base to practice*. Big Brothers Big Sisters Melbourne, Richmond.
- Murphy, W. M. (2011). From e-mentoring to blended mentoring: Increasing students' developmental initiation and mentors' satisfaction. *Academy of Management Learning and Education*, 10(4), 606- 622.
- Northouse, P. G. (2010). *Leadership: Theory and practice* (5th ed.). Thousand Oaks, CA: Sage.
- O'Neill, D. K., Wagner, R., & Gomez, L. M. (1996). Online mentors: Experimenting in science class. *Educational Leadership*, 54(3), 39–42.
- Pawson, R. (2004). *Mentoring connections: An explanatory review*. ESRC UK Centre for Evidence Based Policy and Practice, United Kingdom.
- Pieper, S. K. (2004). The Mentoring Cycle: A Six-Phase Process for Success. *Healthcare Executive*, 19(6), 16-18.
- Poliselli, R. (2002). Combining web-based training and mentorship to improve technology integration in the K-12 classroom. *Journal of Technology and Teacher Education*, 10(2), 247–272.
- Purcell, K. (2004). Making e-mentoring more effective. *American Journal of Health System Pharmacists*, 61, 284-286.
- Raabe, B., & Beehr, T. A. (2003). Mentoring versus supervisor and co-worker connections: Differences in perceptions and impact. *Journal of Organisational Behavior*, 24(3), 271-293.
- Rhodes, J. (2002). *New directions for youth development*. Jossey Bass, California.
- Riel, M., & Fulton, K. (2001). The role of technology in supporting learning communities. *Phi Delta Kappan*, 82, 518-523.
- Salmon, G. (2000). *E-moderating: The key to teaching and learning online*. London: Kogan Page.
- Sevilla, C., & Wells, T. D. (1999). Six wins to foster peak performance. *Performance Improvement*, 38(9), 8-12.
- Single, P. B., & Muller, C. B. (2001). When email and mentoring unite: The implementation of a nationwide electronic mentoring program. In L. Stromei (Eds.), *Implementing successful coaching and mentoring programs* (pp. 107–122). Cambridge, MA: American Society for Training & Development.

- Single, P. B., & Single, R. M. (2005). E-mentoring for social equality: Review of research to inform program development. *Mentoring & Tutoring: Partnership in Learning*, 13(2), 301-320.
- Sproull, L., & Kiesler, S. (1986). Reducing social contact cues: Electronic mail in organisational communication. *Management Science*, 17, 1492- 1512.
- Swan, B., & Dixon, J. (2006). The effects of mentor-supported technology professional development on middle school mathematics teachers' attitudes and practice. *Contemporary Issues in Technology and Teacher Education*, 6(1), 67–86.
- Sweeney, T. J. (2012). Leadership for the counselling profession. In C. Y. Chang, C. A. Barrio Minton, A. L. Dixon, J. E. Myers, & T. J. Sweeney (Eds.), *Professional counseling excellence through leadership and advocacy* (pp. 3-20). New York: Routledge.
- Taherian, K., & Shekarchian, M. (2008). Mentoring for doctors. Do its benefits outweigh its disadvantages? *Medical Teacher*, 30(4), 95-99.
- Thibaut, J. W., & Kelly, H. H. (1959). *The social psychology of groups*. Wiley, New York.