

The Role of the Supervisor on Developing PhD Students' Skills

Amjad Almusaed

Jonkoping University, Sweden, amjad.al-musaed@ju.se

Asaad Almssad

Karlstad University, Sweden

Abstract: Essentially, supervision is the act of looking over the work of another person who absences full knowledge of what they are doing, or the concept at hand. The problem of developing PhD students research skills in institutes has become one of the most critical issues related to research institutes, where interest in the scientist's personality increases, it is noted that it is the individual possessing the basics and skills of a research nature that is capable of self-realization, the creation of new technologies, the transformation of social reality. Supervisory modality, function, and approaches are interrelated to the responsibilities of a supervisor. It can be divided into four sets: those related to the progress of the candidate, mentoring, coaching in the study subject, study methodology, and how to write the thesis and sponsorship of the student's involvement in academic or regular exercise. Respectable supervisory applies aid students to achieve their potential and add to the University's research outline. A good supervisor cannot be a scientific adviser on topics on which he does not have in-depth specialized knowledge. It is possible to find an explanation for the fact that the supervisor leads PhD students in various scientific specialties. The aim of this study is to investigate the supervisor's part in doctoral students working practice.

Keywords: Supervisor, student's skills, research activities, doctoral education, supervision quality

Introduction

The problem of developing students' skills in educational institutes has become one of the most urgent missions of research institutes around the world, where Supervision is the act of overseeing the work done by subordinates whose level of knowledge and technical abilities are considered immeasurable to that of his superior (Orellana et al., 2016). It is the act of looking over the work of another person who absences full knowledge of what they are doing, or the concept at hand. PhD supervision is not only intellectually demanding, but also important and complex relationship (Prazeres, 2017). The supervision of PhD student often comes as a challenge to both individuals, PhD student and the supervisor. PhD supervisors are expected to fulfill many functions, teacher, mentor and a patron. All these functions require different skills at different levels of a PhD. In fact, it is an emotional process, with many expectations from both sides. Often students are faced with conflicts and are forced to learn how to handle emotional moods of supervisor (Johansson et al., 2014). In an ideal world, supervision should be balanced between the guidance and independence of each student. However, often the supervision comes far from this optimum and becomes overwhelming for a student.

The problem of developing PhD students research skills in institutes has become one of the most critical issues related to research institutes, where interest in the scientist's personality increases, it is noted that it is the individual possessing the basics and skills of a research nature that is capable of self-realization, the creation of new technologies, the transformation of social reality. Supervisory styles, roles, and approaches relate to the responsibilities of a supervisor. It can be divided into four sets: those related to the progress of the candidate, mentoring, coaching on the research topic, research methodology, and how to write the dissertation and sponsorship of the student's participation in academic or professional practice (Orellana et al., 2016). Respectable supervisory applies aid students to achieve their potential and add to the University's research outline (see Figure 1). At many universities, the reports of a supervisory relationship are missing almost entirely to the pleasure of individual research students and supervisors. Although this approach typically works fit, it irregularly proves inadequate. The highest academic title of professor is the academic title in any research institute, where

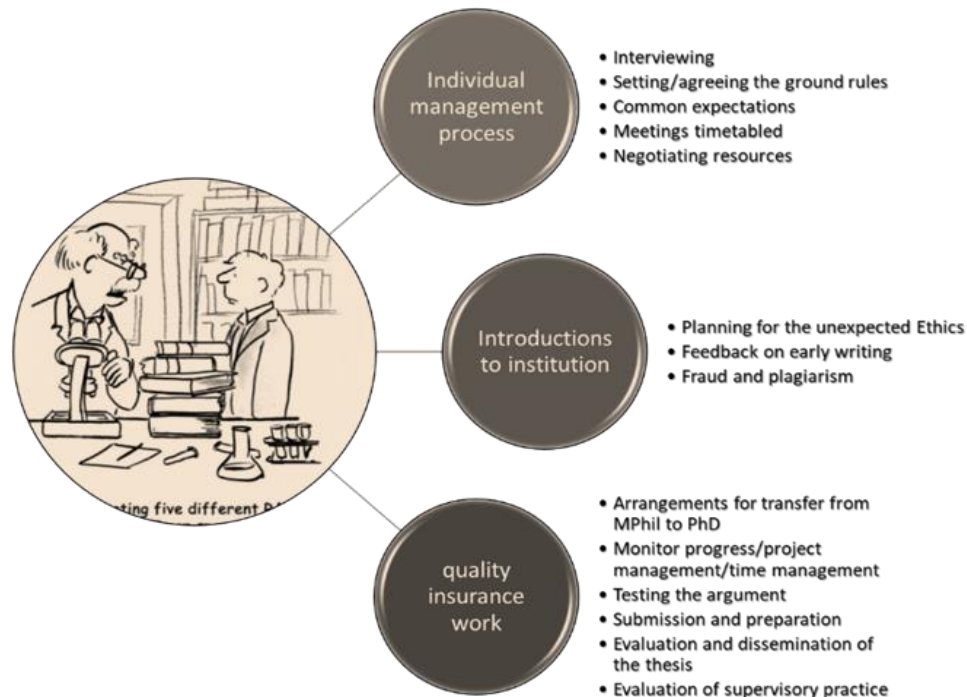


Figure 1. Shows the Supervisory Functions with Students

Pearson & Kayrooz (2004) believed that student supervision is a facilitative process needing encouragement and test. It means providing educational charges and occupations, which include: going forward with respect to the candidature, mentoring, coaching the research project and sponsoring student involvement in academic performance. The doctoral supervisor can be a mentor in two directions in this situation, being responsible both for doctoral students and for overseeing probationary staff acting as a co-supervisor (Code of Practice for Research Degrees 2000) (Lee, 2007). The academic title of a professor in a specialty may be awarded to doctors of science who have trained a lot of students as scientific leaders or scientific consultants, who have been awarded scientific degrees. In terms of scientific institutions, this is not so easy to achieve because many of them do not have state quotas for full-time postgraduate training, and for those who do prepare highly qualified specialists, the allowance for graduate students is small. Nevertheless, these incentives for working with graduate students and doctoral students are not in the first place. The title of professor in the scientific institute can be awarded to doctors of science, if, fulfilling the requirements, they prepared, as supervisors or scientific consultants, as a rule, at least two students who were awarded academic degrees. A good supervisor has to be,

- A talented scientist who creates ideas
- Able to achieve intense, inspiring and highly productive work of students
- He needs intuition to help determine what is essential and what is not in the team's practice

As the work plan for the thesis is completed, it controls the timeframe, the results of scientific research, identifies existing errors and shortcomings, helps to summarize practical results and theoretical conclusions, helps in designing the style and composition of the dissertation, gives recommendations on how to correct deficiencies and prepare materials for defense. The Doctor of Philosophy PhD education is a research training which aims to prepare the doctoral student to become an independent researcher who can make significant contributions to academia and/or industry. A large part of the training is focused on the development and improvement of project leadership skills including planning and problem-solving. Together with the supervising team and a representative of the department, the doctoral candidate is responsible for the agreement on an Individual Study Plan (ISP). The ISP is updated once a year, or more if required, and contains a realistic overview of agreements on the project's scope, responsibilities including supervision, courses, publications, and departmental work as well as measures to improve the doctoral student's education (i.e., feedback). The ISP needs to promote the fulfillment of the learning outcomes of the PhD-education as well as to clarify the rights and obligations of the doctoral student, supervisors and department. The doctoral student, together with the supervising team, has the responsibility to finish the project within the given time. Every PhD supervisor is distinctive and every PhD candidate as well. Consequently, correlations between a supervisor and a PhD candidate are crowded with idiosyncrasies and peculiarities (Ahmed et al., 2010).

The Problem Description

Having an excellent supervisor(s) with extraordinary knowledge in the field of research is one of the most critical factors. Many PhD students feel difficult with this new study type and manner, for them it represents a big subject area is not a meal reservation at a restaurant, or making a phone call and cancels it. The study in PhD is based on a contract whose violation morally disqualifies the person who commits it. With a PhD, the study involves originality, honor. Many students think that the supervisor takes a great effort in creating good research and a competent researcher, he takes the most deal of responsibility to conduct the supervision, where his job is not just a position that solely assigns tasks. The supervisor's responsibility is to enforce safe study process practices and procedures; he must take immediate steps to correct a failure situation. Everything must be clear and systematic. If a hazard is identified, the supervisor must act.

The Study Aims

The study aims to create a good understanding of supervisor role in the development of PhD students skills, where the supervisor's activity is significant in his ability to reveal the research potential of PhD students so that their action would not only be of a formal (i.e., purely didactic, opportunistic) nature but would have an outlet to the creative level. Every supervisor is interested in creating his research place area by preparing the right PhD holders.

PhD Student and Supervisor in an Inter-Reciprocity Action

Today the research activities are paying much attention, which gathers dozens of like-minded people. A PhD student can have all this only if he knows why he is studying the research problem; the PhD student has to be sure of himself; he must be open to challenges and be prepared to deal with them as the project demands, where the process of the doctoral education process follows a standard way (see Figure 2).



Figure 2. The PhD Research Project Activates and Development Process

The most serious attention should be paid to the choice of the research topic. It is vital to take into account the requirement of the PhD researcher as it is almost impossible to undertake the work that is imposed. In supervising process, the interaction between all doctoral educational factors must be involved in balancing form (see Figure3) where the process of assignment supervisors of PhD students, supervisors and students require to feel that they have selections or at least the aptitude to say 'no' to suggest arrangements. It is required to make this recommendation because students who felt they had choices made the best progression and were gratified. Scientific supervisors usually do not spare their free time to help their ward. There is also a kind of statistic that tells how many precincts completed their work under his auspices. The supervisor is working on his dissertation

on his topic, formulates a plan with which the student will prepare to defend his work. Together with his ward, the supervisor develops a study schedule. In general, it plays a huge role in the work of the dissertation. The supervisor is obliged to write his authoritative review of students' work, where he must provide information on the admission or non-admission to protection. Inadequate supervision can lead to a significant impact on the students involved, affecting both the quality of their research and their motivation. (Norhasni, Aminuddin & Abdul, 2009). A few students had two active supervisors, either as part of their formal supervisory arrangement or informally. These students made good progress with their theses and were invariably satisfied with their supervision (Ives & Rowley, 2005).

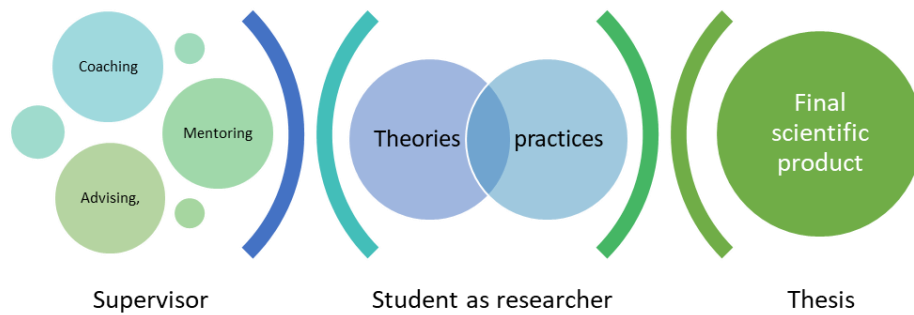


Figure 3. Supervision Process and Interaction Factors of a Doctoral Education

A research plan, including student participation, should be recognized upon enrollment. PhD Students shall be conscious of both the arrangement and broad timelines that their PhD project requires. (Ives & Rowley, 2005). For a PhD student, the value of a supervisor is the ability to receive advice and recommendations and continuously. A PhD student should, using the opportunity available to him, "exploit" the methodical erudition, knowledge, and experience of his supervisor, and not hope that he will pull him out to defend his dissertation. The relationship between PhD students and their supervisors should be confidential. However, often they end up independent of each other. The reason is complicated structures. The PhD student's supervisor plays a serious role in doctoral education, and 'good' doctoral supervision is vital to fruitful research and education plans (Prazeres, 2017). The study underlines the links between the quality of doctoral supervision and student progression as well as attrition rates and completion rates have reputational and financial implications for universities in an increasingly competitive higher-education marketplace (Ives & Rowley, 2005). In most universities, the reports of a supervisory relationship are missing almost entirely to the pleasure of individual research students and supervisors, where the institution and student environments play an important role in creating a successes research project (see Figure 4).

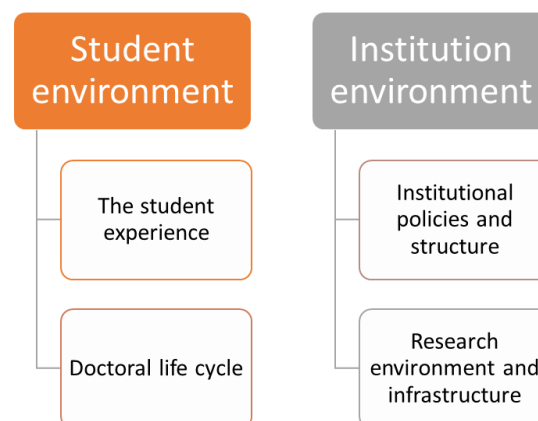


Figure 4. The Environments of Doctoral Education Components (Bates et al., 2011)

As well as the factors that mark the achievement of the program, these weaknesses have to be taken in high attention in supervised practice. In a study made by Geoff M. Gurr; "Negotiating the "Rackety Bridge — a Dynamic Model for Aligning Supervisory Style with Research Student Development" shows that supervising in form and process can be "active" or "passive," and it can be "direct" or "indirect" state (Gurr, 2001). It affects straight-on student output and behaviors (see Figure 5).

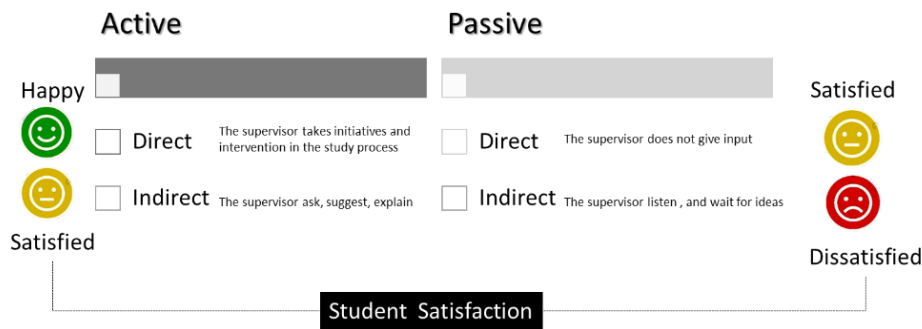


Figure 5. Arrangement of Supervisory Style and Student Independence Adapted from Gurr (2001)

A PhD student must have skills to comprehend how to prepare a work plan for research, including the stages of analysis, assessment of time costs and the choice of sources of information. Some academic supervisors may avoid the difficulty of dealing with the ambiguous demands placed upon them by focusing on one role only. This tactic can reduce their effectiveness if the individual is not adept at switching from one compartment to another as situations demand because unique approaches can manifest themselves swiftly (Zehir, Sehitoglu, & Erdogan, 2012). Based on a review of the literature of graduate student supervision indicates, that no perfect formula for the supervisor-student relationship; multiple factors involved, such as the personality of the persons involved, methods in knowledge acquisitions.

The Negative Aspects in Supervision Process

Supervision has to take his role in supervision process where he needs to create a constructive relationship with PhD students. In many situations, this relation can create a negative form, where the supervisor doesn't take his objective role; in this situation the supervision can take three forms as follows:

Abusive Supervision

The supervisor who expresses abusive style is notoriously rude to the student, crushing her/his ideas, blaming students for their own failure and mistakes. It is behavior which is expressed by continuous hostile behavior of supervisor versus PhD student. Abusive supervision results in dysfunctional consequences, including low job satisfaction, conflicts with friends and family or severe psychological stress including depression (Tepper, 2000). Or it can even lead to unethical acts highlighting the relation between elevated anxiety and unethical behavior (Kouchaki, 2015).

Ghost Supervisor

It is an opposite of the previous type. It also appears as more common one and can also occur when a PhD supervisor has many tasks to fulfill or too many students to supervise (Almusaed, 2018; Bazrafkan et al., 2016). The "ghost supervisor" is an invisible one, very rarely responding to emails, somebody who can be seen just seldom. For students who need more engagement and support, this type of supervision can turn into a nightmare, where student should grow into independent researcher and should be able to find solutions of problems alone. However, there should always be a balance between constantly seeking advice of supervisor for every small problem and being left alone without any support at all (Johnson & Frank, 1997). Although for some PhD students who work independently, this type of supervision may actually appear as a satisfactory model. However, lack of sufficient supervision is usually one of the main obstacles and reasons for delayed PhD.

Controlling Supervision

In quite a contrary to the "ghost supervisor" is over controlling supervisor, called also a micro manager who awaits update on any, even the smallest problem. Micromanaging is more likely to occur in science (Sapienza &

Lombardino, 2006). Here, the controlling supervisor does not allow the PhD student to make any research choice on their own (Gunnarsson, Jonasson, Billhult, 2013) "they infantilize me and I can do nothing without their prior consent". No matter if it comes to the selection of the topic of next paper or methodology for experiments. PhD student has also no choices if it comes to the management of her/his project. Micromanagement is one of the worst deficiencies which supervisor can have, because it doesn't leave any room for development and creative thinking of the PhD student. It facilitates guided dependence instead of scientific creativity (Lee, 2010) (see Figure 6), whereas to become a successful researcher the skill of critical-solving problem is necessary. Moreover, the micromanaging supervisor often enforces own ideas over ideas of a student. It often happens during the process of writing the manuscript. The controlling supervisor not only gives advice on the improvement of the draft, but also makes substantial changes to the manuscript. The supervisor rewrites the whole paper until the work is presented with his own words, imposing own ideas.

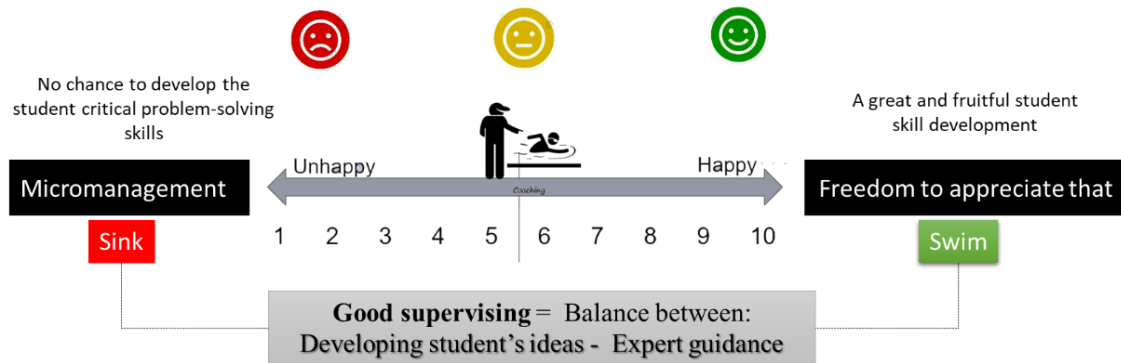


Figure 6. Direction-self-direction Scale of Scientific Creativity (Lee, 2010)

Such supervision is highly discouraged for students and can even turn down their love and passion for science. The role of a supervisor is to give the student freedom to explore, but at the same time gently guide away in case of substantial off track (Lee, Dennis, & Campbell, 2007), not to treat students as a labor for their own agendas. In an investigation made by Evans, T. M., L. Et al. "Evidence of a mental health crisis in graduate education" (Evans et al., 2018) shows that graduate students are more than six-time as likely to experience depression and anxiety as compared to the general populations (see Figure 7).

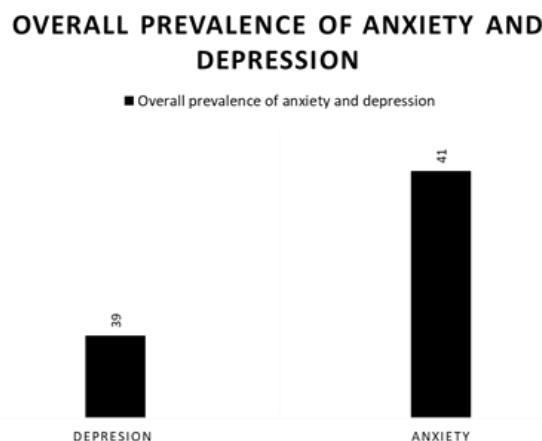


Figure 7. The Overall Prevalence of Anxiety and Depression Adapted from Evans et al. (2018)

The Research Project and Supervision, Evaluation

PhD supervision is not only intellectually demanding, but also important and complex relationship (Norhasni, Aminuddin & Abdul, 2009). The supervision of PhD student often comes as a challenge to both individuals, PhD student and the supervisor. PhD supervisors are expected to fulfil many functions, teacher, mentor and a patron. All these functions require different skills at different levels of a PhD. In fact, it is an emotional process,

with many expectations from both sides. Often students are faced with conflicts and are forced to learn how to handle emotional moods of supervisor (Amy et al., 2013).

There have been various attempts to define and measure research supervision, quality, the list below is indicative but by no means exhaustive. For the present purpose, it is useful to work with the traditional model focusing on the supervisor-student dyad as where the supervision happens. This interpersonal relationship between supervisor and PhD-student is crucial for a positive experience of research supervision. For example, Lee (2008) proposes a five concepts framework of research supervision, which should address functional aspects of project management (essentially leadership skills), enculturation of the student to the discipline, two aspects of student autonomy (critical thinking and emancipation) and relationship development between supervisor and student. Halse & Malfroy identify five facets that can be subdivided into two emergent properties characteristic of successful doctoral supervision (formation of a supervisor-student learning alliance devoted to the accomplishment of the PhD project, and enculturation of discipline-specific habits of mind) and the transmission of three types of expertise (scholarly, technical, and contextual) from supervisor to student (Christine & Janne, 2010). There is some correspondence between the two frameworks (e.g., acculturation occurs in both of them), but they also remain notable differences: Halse & Malfroy's emphasis on expertise remains strangely absent in Lee's treatise, while Lee's aspect of autonomy does not get explicit attention in Halse & Malfroy's taxonomy.

What do students expect of their Supervisor?

Students expect their supervisors to have the knowledge and talent to supervise in a specific part of investigation but also poverty them to be rational, serious, helpful of their effort in good and bad times, where they should performance as mentors and that a mentoring relationship requires reciprocal respect based on high academic values, similar interests and regular interaction. With respect to the characteristics of a perfect supervisory connection, whether they were recognized impulsively by the interviewee or at the interviewer's appeal, it can be inferred that as recommended by Gurr (2001), a supervisor might adopt diverse styles in concordances with the stage of the research or according to the student's requirements. Especially among students, "accessibility, friendliness, empathy" as well as "direction" or "expertise in the field" was considered a desirable feature of supervisors. A Good PhD-supervision is considered essential in both trainings of excellent PhD-students as well as promoting high-quality research However, there is a global trend that researchers are expected to dedicate more time for both teaching and research (Christine & Janne, 2010). That it is more pressure to produce high-quality research (Deuchar, 2008).

The Primary Role of the Supervisor

The role of the supervisor in the preparation of doctoral dissertations is well known. However, its implementation is a rather complicated process. It required establishing specific rules for scientific and organizational activity. The supervisor has to take the primary responsibility for:

- Considerable respect to the PhD student views from the moment of acquaintance to the defense of the thesis.
- Providing all kinds of assistance in the deep understanding of the topic of dissertation research.
- Labor on a jointly defined plan, which should be as detailed as possible and specified in time, and which contributes to the discipline, self-organization, as well as supervisor and his ward.
- Current (out of regulation) working relationship, where the initiative is more for a graduate student, doctoral student.
- Practical assistance in the formulation of provisions and conclusions in the scientific presentation of the fact (document) and its understanding.
- Developing a PhD student in the ability to design the regulated apparatus, respectful attitude properly
- Establishing an equal partnership with his student
- Advising a graduate student in choosing the most appropriate topic
- Does not consider himself a co-author of the thesis, limiting him to encourage and recommendations?
- Continuity of supervision is essential about thesis completion times and satisfaction with supervision and can be interrupted by the student and supervisory issues. Student issues include ill health and personal problems.

The principal phase of supervision is concerned with the procedure of assuring that the student makes worthy participation toward completion. The supervisor may understand themselves as being like a family doctor, he can, for example, offer his student with precise knowledge; he can be a gatekeeper to much more knowledge resources, professional views, and networks. The supervisor can select which gates to open, principally in the primary periods of the researcher’s life. Within this understanding, therefore, there is also an understanding of the influence of the supervisor in its widest sense. Not only is the researcher ‘present’ in this model, but the supervisor is also ‘present’ as well (Vilkinas, 2007). The supervisors can be classified in many categories according to the interacting with the students. According to a study made by Ahmed A. Et al, “Effective PhD Supervision”; (Ahmed et al., 2010) they classified six categories. They can be as a; Delegator, friend, expert guiding, coach a quality control, and editor; (see Figure 8):

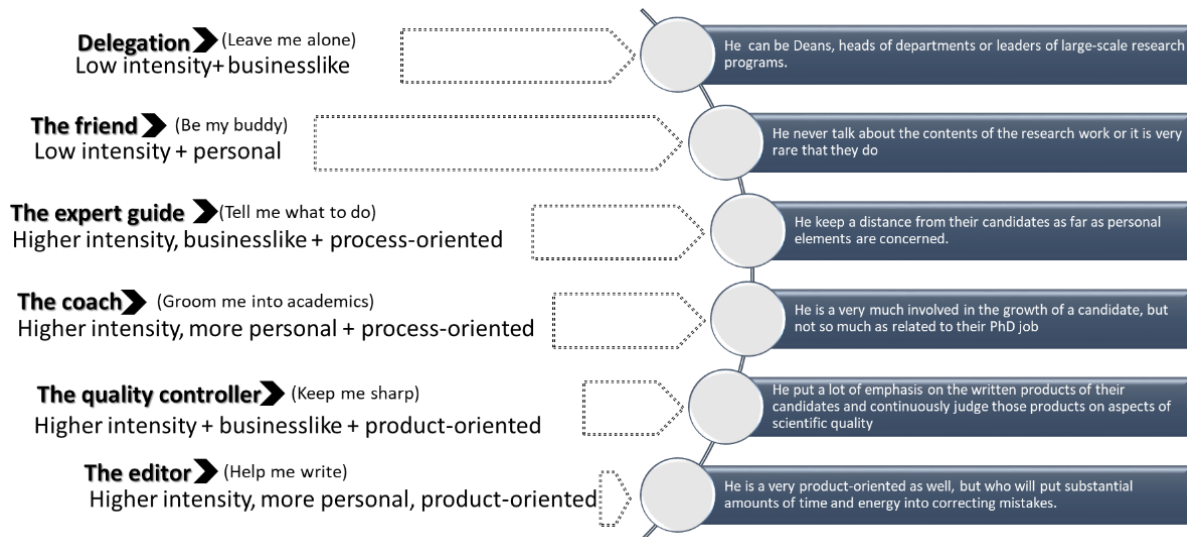


Figure 8. Shows the Supervisors Types, adapted from Ahmed et al. (2010)

Many researches show that the relationship between supervisor and student has either positive or negative effect on the whole process of acquiring PhD title. In fact, failure or success of the project is largely determined by good supervision (Van de Schoot et al., 2013). A vital aspect of the active supervision of PhD research is a supervisor- PhD student interaction, where it can affect directly to the characteristics and requirements of students and official circumstances as well as the abilities, approaches, and roles of supervisors and their supervisory styles (Orellana et al., 2016). Supervising is a performance of guiding, observing or administration a mission to make sure, that the process is completed adequately. Supervision as a process is defined in many diverse manners; however, a supervisor at all times has an impact. Supervising does not need the skill to impact, only the capability to delegate. The supervisor helps his student, among other things, in drawing up a work plan and a timetable for working on her dissertation. It helps a novice researcher to master the methodology of researching topics, problems, phenomena. The supervisor has to move out research and increase activities and be an experienced individual who is well knowledgeable in his area of expertise for which the thesis is being written (Connell, 1985).

The supervisor must have in-depth scientific expertise in his specialty; have extensive experience in systematic work, its organization. Of course, a supervisor cannot know the methodical problem investigated by a PhD student in subtleties, but he must understand and imagine the ways of scientific research. A supervisor should be an example for his PhD students not only in their area of research, but also in the private and public life of his student. A student needs a dissertation, and a supervisor should help in every way, be an adviser when they need it. Therefore, the objective order was as follows. A student gives a sketch of thoughts, a part of a paragraph, a thesis. At the initial stage, after clarifying the topic, together with the graduate student draws up a work plan, develops recommendations on the use of literature. The PhD students need to get help directly from their supervisor, sometimes urgently in some weaknesses of the doctoral process (Orellana et al., 2016). The following can be identified as the main weaknesses of doctoral programs based on traditional models.

- Many students do not complete their required program.
- Supervisors sometimes do not know if additional training and support are required to ensure completion of the program
- Syllables tend to present a program emphasizing skills with little of use to their students

- The teaching progression involved in the acquisition of knowledge and research competencies tends to be weak.

One of the main requirements for a supervisor appointed to supervise a PhD student in the preparation of his thesis is the presence of his Doctor of Philosophy degree in the relevant field. The style and methods of work of a supervisor and his student can be very different. A scientist cannot be a supervisor on topics on which he does not have in-depth specialist knowledge. It is possible to catch a clarification for the fact that individual scientists lead PhD students in various analytical specialties (Lee, 2017).

Supervisor and Development of Student's Skills Way

The problem of developing research skills in academic areas has become one of the most urgent in the actual form of universities (Moss, 2018). Development of research skills, in general, is related to the development of a practical reading of research topics, where the supervisors also developed their own rules for the management and conduct of educational research. Works that help to see, discover and develop in the student the ability to do this kind of activity (McKay et al., 2008). Supervisors and students need to feel that they have choices or at least the ability to say 'no' to suggest arrangements. The primary function of supervisions of all types is the leadership, plus the encouragement and recognition of leadership in other people. Good supervisors look to have many of the same abilities of good lecturers and good therapists. They are empathic, genuine, open, and flexible, where good supervisors have a sense of humor which helps both the supervisor and supervise get through rough spots in their work together, and achieve a healthy perspective on their work (Löfström & Pyhältö, 2014). The Student's skill occupations in research institutions can take action from passive state "thinking" to active state "putting into practice," as it is presented in Figure 9.

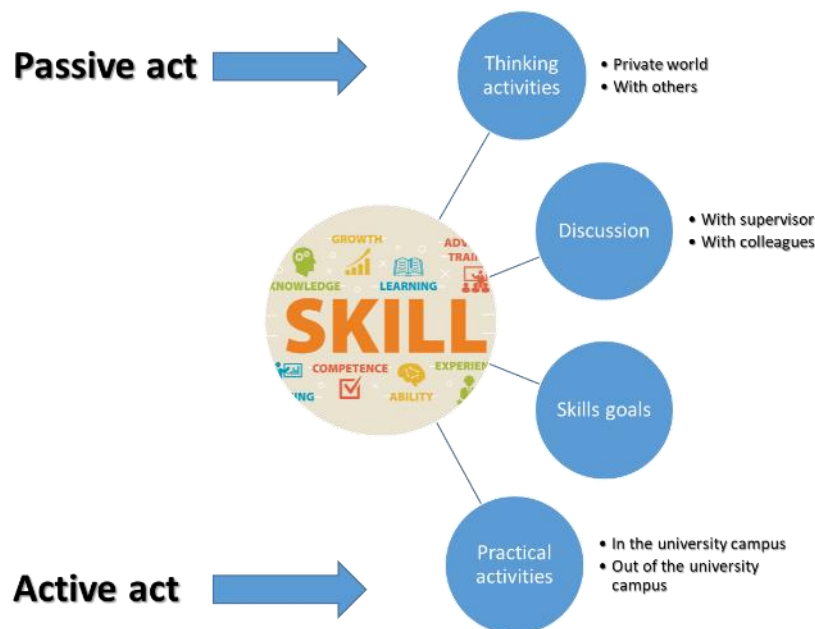


Figure 9. Student's Skills Activities in Research Institutions

One of the most interesting aspects of the supervisory relationship is the autonomy and independence of the student in the process. Another is the assessment made of this aspect by both supervisors and students, based on their experience of the supervisory relationship, where the supervisor has to Involve efficiently the students in scientific research zone by:

1. The supervisor needs to know some basic facts about the student's personal life. Not in order to start amateur therapy sessions, but to know what to do if there is a crisis, or a need to apply for a suspension of candidature, a scholarship renewal or an extension of time.
2. The supervisor has to help the students to develop their communication skills, which include an ability to both listen and make comments in an open, objective and constructive way
3. The supervisor has to help his student overcome their fear of a new type of activity. The fact is that in order to conduct a study, motivation and focus on obtaining a specific result are needed. All this can be

- with the student only if he knows why he is studying this problem, confident in himself, not afraid of difficulties.
4. Positive interpersonal working relationships have been associated with student satisfaction with their supervisor and also effective progression through the PhD (Ives, G. & Rowley, 2005).
 5. Create the student interested in scientific and research activities, the most serious attention should be paid to the choice of the research topic. It is very important to take into account the interests of the young researcher. It is impossible to effectively perform work that is imposed, boring and uninteresting
 6. Create ability to choose the topic which must be correctly formulated. As practice shows, the topic is better to choose a specific, preferably narrow, poorly understood. In this case, it is imperative to provide for a “field for independent activity”. Research is considered work, which contains not only a review of the literature on this issue, but also obtained its own facts, information, and evidence.
 7. There should be two active supervisors as part of the formal supervisory arrangements. It is imperative that all three meet together at least every 3 months and that both supervisors receive written work. The advantages of this procedure are that the student can be provided with a match in all three areas and a second person to turn to when one supervisor is unavailable. It is also advisable that the student and the main supervisor can establish a constructive interpersonal working relationship requirement
 8. A real supervisor is able not only to give valuable guidance, but also to accomplish a lot himself, for example, to quickly type in or edit an article on a computer. And of course, the doctor of science is more suitable for the role of a supervisor than the candidate of science
 9. The supervisor may be able to short-circuit problems that would take the student a lot of time and trouble: finding research money, getting access to equipment and transport, getting a subsidy to go to a conference, finding space to work in and furniture to put it in, and so forth.
 10. The supervisor has to help his student in positive feeling, where the student should feel the leader’s deep interest in the results of his work. Years of experience allow us to argue that a teacher formally related to the management of scientific work, passively expecting a student to independently deeply research the topic and make a conclusion, does not get the desired result
 11. The supervisor has to be at different times both a follower and an opponent of the student’s output, and sometimes both.
 12. Help student to be structured, where the success of scientific work is clear planning of the stages of its implementation. This allows you to avoid rushing, the confusion, which affect the quality of the research. The plan helps the student to find, process the primary sources on the topic. It is very important to teach the student the correct and competent execution of the work. As you know, it is built not arbitrarily, but in a certain structure, which is generally accepted for scientific works. This is the sixth condition for the success of the research. Serious preparation of the report and presentation for it is also required. The report reflects the main points of the scientific work; it should clearly state the goal, objectives, hypothesis and conclusion. It is necessary to emphasize the practical significance of the results. The presentation usually complements the report, illustrates it. Slides can contain definitions, theses, diagrams, diagrams, but, as you know, they should not duplicate the text of the report.
 13. Training the students to be productive and correct thinking, where It is very important to teach the young researcher to present the material correctly, to be well-versed in the topic, to stay confident during the speech, not to be afraid of questions from the jury and listeners, and to express his opinion boldly.

Conclusion

The supervision process is a multifaceted teaching charge, demanding a guarantee of time and energy by both supervisor and student, where the supervisor is responsible for the quality of the research. A real supervisor is able not only to give valuable guidance, but also to accomplish a lot himself. The supervisor must have in-depth systematic knowledge in his research field; have extensive experience in methodical work, and the university. The thesis is a kind of mirror not only of a PhD student but also of his supervisor, where the supervisor is fully responsible both for the level of theoretical training of the graduate student and the timeliness of the dissertation and for its content.

The supervisor is also representing the first listener; with whom the student can rehearse the process of protecting the student work. On examination of the student’s work, the mentor is obliged to direct the student in the right area should the student veer off. As a student understands, a supervisor is an authoritative person who will take a student under his wing. The onus lies with the student not to let him down. Therefore, the choice of

the supervisor is not an easy task, and it is worth taking it seriously and responsibly, since not only writing a good-quality dissertation but also its successful defense depends on its solution. Practice shows that the overwhelming majority of problems with the preparation of the thesis are connected precisely with scientific leadership.

References

- Ahmed A. Wadee, M. K., Ton D., & Driekie H. (2010). *Effective PhD Supervision – Chapter Five – The Relationship between PhD Candidate and Supervisor*, Rozenberg Publishers, Amsterdam Netherlands;
- Almusaed, A. (2018), *Sustainable Buildings - Interaction Between a Holistic Conceptual Act and Materials Properties*, 2018, INTECH Publisher
- Amy, R. Overton, B. A., & Lowry, A. C. (2013) *Conflict Management: Difficult Conversations with Difficult People*, *Clin Colon Rectal Surg.*, 2013 Dec; 26(4): 259–264., doi: 10.1055/s-0033-1356728
- Bates I., Phillips R., Martin-Peprah R., Kibiki G., Gaye, O., Phiri, K., et al. (2011). *Assessing and Strengthening African Universities' Capacity for Doctoral Programmes*. *PLoS Med* 8(9): e1001068.
- Bazrafkan, L., N. Shokrpour, A. Yousefi, & N. Yamani. (2016). *Management of stress and anxiety among phd students during thesis writing: a qualitative study*. *The health care manager* 35: 231-240.
- Deuchar, R. (2008). *Facilitator, director or critical friend? contradiction and congruence in doctoral supervision styles*, *Teaching in Higher Education*, 13:4, 489-500
- Evans, T. M., Bira, L., Gastelum, J. B., Weiss, L. T., & Vanderford, N. L. (2018). *Evidence for a mental health crisis in graduate education*. *Nature Biotechnology*, 36(3), 282.
- Gunnarsson, R., G. Jonasson, and A. Billhult. (2013). *The experience of disagreement between students and supervisors in PhD education: a qualitative study*. *BMC medical education* 13: 134.
- Gurr, G. M. (2001). *Negotiating the "Rackety Bridge" — a Dynamic Model for Aligning Supervisory Style with Research Student Development*, *Higher Education Research & Development*, 20:1, 81-92
- Halse, C. & Malfroy, J. (2010). *Rethorizing doctoral supervision as professional work*, *Studies in Higher Education*, 35:1, 79-92
- Ives, G. & Rowley, G. (2005). *Supervisor selection or allocation and continuity of supervision: Ph.D. students' progress and outcomes*, *Studies in Higher Education Journal* Vol. 30, No. 5, October 2005, pp. 535–555,
- Johansson, T., G. Wisker, S. Claesson, O. Strandler, & Saalman, E. (2014). *PhD. Supervision as an Emotional Process-Critical Situations and Emotional Boundary Work*. *Pertanika Journal of Social Sciences & Humanities* 22.
- Johnson, W. & Frank P. (1997). *Joining Together: Group Theory and Group Skills*. Boston: Allyn and Bacon.
- Sapienza, A.M. and Lombardino, J.G. (2006), “Recognizing, appreciating and capturing the tacit knowledge of R&D scientists”, *Drug Development Research*, Vol. 57, pp. 51-7.).
- Kouchaki, M. (2015). *Professionalism and moral behavior*. *Business & Society* 54: 376-385.
- Lee, A. (2008); *How are doctoral students? Concepts of doctoral research supervision; Studies in Higher education*, 33(3), 267-81
- Lee, A. (2010). *Mentoring in microbiology: tips and traps for PhD supervisors*. *Microbiology Australia* 31: 9-13.
- Lee, A. M. (2007). *Developing effective supervisors: Concepts of research supervision*, *South African Journal of Higher Education*, SAJHE 21 (4) 2007 pp 680-69
- Lee, A., C. Dennis, & P. Campbell. (2007). *Nature's guide for mentors*. *Nature* 447: 791.
- Levecque, K., F. Anseel, A. De Beuckelaer, J. Van der Heyden, and L. Gisle. 2017. *Work organization and mental health problems in PhD students*. *Research Policy* 46: 868-879.
- Lee, M. (2007). *Developing effective supervisors: Concepts of research supervision*, *South African Journal of Higher Education*, SAJHE 21 (4) 2007 pp 680-69
- Löfström, E., and K. Pyhältö. (2014). *Ethical issues in doctoral supervision: The perspectives of PhD students in the natural and behavioral sciences*. *Ethics & Behavior* 24: 195-214.
- McKay, R., Arnold, D. H., Fratzi, J., & Thomas, R. (2008). *Workplace bullying in academia: A Canadian study*. *Employee responsibilities and rights Journal*, 20(2), 77-100.
- Moss, S. (2018). *Research is set up for bullies to thrive*. 2018. *Nature* 560, 529
- Norhasni Z. A., Aminuddin H., Abdul R. A. (2009). *Research Student Supervision: An Approach to Good Supervisory Practice*, *The Open Education Journal*, 2009, 2, 11-16.
- Orellana, M. L., Darder, A., Pérez, A., & Salinas, J. (2016). *Improving doctoral success by matching Ph.D. students with supervisors*. *International Journal of Doctoral Studies*, 11, 87-103.
- Prazeres (2017). *PhD supervisor-student relationship*. *Journal of Advances in Medical Education & Professionalism J Adv Med Educ Prof*. 2017; 5(3):213.

- Connell, R. W. (1985). how to supervise a Ph.D., Sociology Macquarie University
- Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of management journal* 43: 178- 190.
- Van de Schoot et al. (2013). What took them so long? Explaining PHD delays among doctoral candidates. *PLoS One*, 8(7), e68839. Doi:10.1371/journal.
- Vilkinas, T. (2007). An Exploratory Study of the Supervision of Ph.D./Research Students' Theses, *Innov High Educ* (2008) 32:297–31, Springer Science + Business Media, LLC 2007
- Zehir, C., Sehitoglu, Y., & Erdogan, E. (2012). The Effect of Leadership and Supervisory Commitment to Organizational Performance, *Procedia - Social and Behavioral Sciences* 58 (2012) 207 – 21).