The Successful Graduate Students' Research Supervision Pedagogy

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Abstract
To make up the successful graduate students' supervision, pedagogical practices are presented in this research. Upon reviewing the existing research works in the same research area, together with the tested four hypotheses for this research, the analyzed raw data was collected by a questionnaire that was answered by ninety qualified respondents. Those hypotheses are: (i) the supervisor's expertise in the research domain has a lot to do with the successful graduate students' research; (ii) the regular supervisory research meeting positively contributes to the successful graduate students supervision pedagogy (GSSP); (iii) the feedback on the work in progress has a positive relationship with successful GSSP; (iv) graduate students' research supervisor's advice and morale positively contribute to the successful graduate research students' supervision pedagogy. On the 35 Likert-types statistically scaled queries, we used the Pearson correlation and multiple regression analysis to test the relationship between variables of this study. In results, the highest correlation of 0.78 is found between the expertise of supervisors in the subject (EIS) and the regular group meeting (RGM): two of the designed statistical model's parameters. The universality of the truth might depend on the research disciplines, location, motivation, and system, but this research results in the successful graduate student supervision process that is based on regular research meeting favoring the interactive learning environments where the expertise of supervisors governs. In case of the distance learning, the supervised research work's report is preferably done on computer-mediated communication systems; based on which, together with the intelligent tutoring systems, plagiarism will certainly be avoided.

Keywords: Graduate Students Supervision Pedagogy (GSSP), Interactive Learning Environments, Computer-Based Tutoring, Cross-Cultural Projects

Introduction

In this manuscript, the focus in on graduate student research supervision, which must be done following some pedagogical approaches; by defining pedagogy as the practice of teaching. Supervision and mentorship can be used interchangeably in this manuscript.

The hands-on pedagogy develops more trust and guarantees direct supervisors supporting hands to their research students. The hands-off pedagogy leads to a slow and even a non-completion status for the supervisees. According to Sinclair (2004, p. 26), the supports by supervisors are limited during the hands-off supervision pedagogy, and in that case candidates are always unwilling to approach theirs supervisors and this is often practiced in the social sciences, humanities and arts where the laboratory and workshop works can be replaced by software and simulation works done on computers. When hands-off pedagogy is practiced in the natural sciences and Engineering (without any idea of computer-mediated communication as well as the intelligent tutoring systems), supervisors are unwilling to co-publish with their students because they are not only unsure of the papers quality but also fear unethical behavior of parasitism.

The graduate students' research supervision process is the guiding of research students' activities, aiming at the successful completion. This is often based on relationship and trust between the supervisors and supervisees (Halse & Malfroy, 2010; Maor & Currie, 2017, p.14). The graduate students' research supervision has been mentioned as a research process of training a supervisee to be independent (Lee, 2008, p. 7). In any case, there must be a considerable amount of research works that were previously done by the supervisors themselves with the same functional approach and in same field as the research students.

Graduate students' research education is evaluated with a very big contribution to raise up good educators for the next generation (Kumar & Lee, 2011, p.22).

Regarding the supervisors and PhD students who are under a multicultural environment and sometimes working on the cross-cultural projects, according to Mcleod (2009), the research evaluated how cultural issues are handled while supervising academic research works under multicultural environment's relationship between the supervisory team and the research students. The collected data was analyzed using a phenomenological framework, where the recorded interviews were coded and put in different themes based on the experiences of the participants. The themes explained how cultural issues are solved during supervision process; the included are the setting of discussions among multicultural research members as well as the interaction between students of different academic levels. The interviewees also described the positive and negative issues in multicultural PhD supervision environment as well as their impact on relationship between the supervisors and Graduate Research students. The negative findings were the withdrawal of PhD students, the decreasing mutual confidence, and the lack of growth in competence and research abilities. The positive issues include self-confidence and success in individual research. For further information about the joint process of the Graduate Students' Research journey between the students and the entire supervisory team, more documentation can be made (Brew, 2003; Kobayashi, Grout, & Rump, 2013; Kumar & Lee, 2011; Lee, 2007).

In case of conflicts, the university will act as mediator between the supervisees and the supervisors and a research institution plays a crucial role in solving conflicts which might

obstruct the successful Graduate Students' Research supervision tasks (Nellis, Hawkins, Redico, & Way, 2011).

Supervisors must abide by the existing institution's regulations which would be surely in place. It is observed that the concept of Graduate Students' Research supervision is a universal procedure (Reguero, Carvajal, & Valverde, 2017) and supervisors normally learn as well (Halse, 2011, p. 3-4).

Supervisors need to listen to their research students' original ideas, and then the guidance switch would be accordingly tuned. The supervision situation worsens if the student isn't inquisitive at all, that's the self-centered students (Almeida-Souza & Baets, 2012).

Besides, the core idea to mentorship is based on a developed relationship, and some of the core functions of being a good mentor are, but not limited to: (i) the primary personal relationship between the mentor and the research students; (ii) providing emotional, psychological and moral supports; (iii) directly helping the research students' mind towards their future careers; (iv) being their role model on showing the way; (v) developing trust, confidence and mutual respect between the student and mentor.

According to Wadee et al (2011, p. 46), the research is referred to as an act of "finding out what wasn't known before." Nonetheless, the research is, by definition, a process of collecting and analyzing the information to enrich the societal understanding of a certain topic. It generally involves the problem statement and the data collection to answer the posed problems (Creswell, 2008).

The high quality is needed in the tasks of postgraduate research supervision at all the concerned levels: individual, school and institutional (Garvis & Pendergast, 2012; Nulty, Kiley, & Meyers, 2016). The emphasized factors that influence the GSSP are based on skills of both the supervisees and the supervisors (Odena & Burgess, 2017).

Therefore, the research question in the present work is: "what would a successful graduate student supervision pedagogical approach be, and how would the poor graduate student supervision pedagogy be measured?"

The specific objective of this research is "to study the relationship between supervisor and graduate research students which can lead to the success."

Relying on the experience of the authors together with different ideas from the interviews with experts in the domain, the research objective is set along with four specific hypotheses which are expected to be scientifically proven by the data and results. The research hypotheses are:

- The supervisor's expertise in the research domain has a positive relationship wit successful GSSP.
- The regular supervisory research meeting positively contributes to the successful GSSP.
- The feedback on the work in progress has a positive relationship with successful GSSP.
- The graduate students' research supervisor's advice and moral positively contribute to the successful graduate research students' supervision pedagogy.

This research is neither limited to regions nor any research disciplines (science, engineering, etc.), its scope is on the GSSP.

The remaining part of this research work is organized into the materials and methods which constitute a 2nd section where the conceptual research framework is designed, and the model formulated on basis of four hypotheses. The 3rd section presents the obtained results and the discussion based on those results; finally, the conclusion, the acknowledgments, and the list of references.

Materials and Methods

The research framework, as a set of interconnected entities built from the initially set objectives and principles, is designed under this section. Goals are normally identified along with objectives, which clearly put up the research concepts that help to achieve the initially set objectives. Learned from Williams (2015) and Smyth (2003), the descriptive and correlation-based research approach is applied on the questionnaire's data; the main ideas are summarized by the conceptual flowchart in Figure 1.

The inputs to the research theme were utilized as the parameters to design the research questionnaire and to formulate the research model.

The parameters and inputs to the questionnaire were formulated from opinions in the interview with experts as well as the ideas from some previous research works (Askew, Dixon, Mccormick, Callaghan, & Wang, 2016; Maor & Currie, 2017; Sinclair, 2004). Different pedagogical issues as well as the interactive learning environments experienced by this manuscript's authors played a vital role to design the conceptual research method's framework as well as the inherent model.

There are many factors that influence relationship in the academic research environment, such as mutual interests, previous experience, prior knowledge at the research onset, the supervisor's roles, and supervisory styles. The effective and successful supervision of graduate students' research during the training stage is judged from multiple factors and processes that do not only involve the relationship, but also the research equipment as well as the research institution's rules and regulations to supervise (Askew et al., 2016; Orellana, Darder, Pérez, & Salinas, 2016).

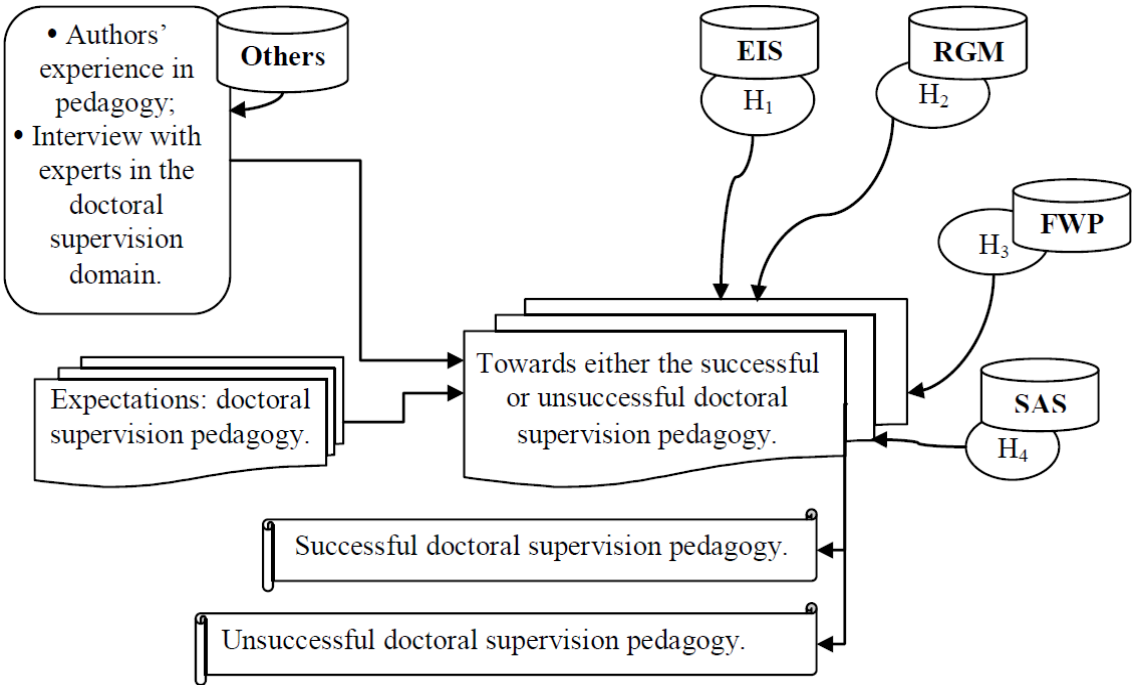

Figure 1: The conceptual research method's framework

A case of a single supervision session in comparison with a team of multiple supervisors from the faculty of life science was studied for relationship (Kobayashi, Grout, & Rump, 2013). They found out that opportunities were developed through the diverging voices of the supervisors.

In the current research, the designed questionnaire contains the total of 35 queries built on the 5-point Likert scaled responses. The study was conducted on basis of the convenience sampling method. For the distributed questionnaires, ninety (90) copies were returned in total. Respondents were from the five authors' host universities and research institutions, who have PhD or who are PhD Students.

The preponderance of previously published research papers is acknowledgeable; however, personal approval, based on individual authors' experience in the domain, significantly contributed to this research. Particularly, in terms of the eminence of the provided information, both qualitative and quantitative research methods are used, but qualitative methods are the most applicable to the studies emphasizing the relationship between the studied subjects. Thus, the study questionnaire's queries were based on the research objectives and hypotheses.

The questionnaire, as the main research tool, is subdivided into two main sections: the first section is compulsorily inquiring about the personal data of the respondents, targeting to know the respondents' age range, the education level, and the academic position. The personal information helped the research to judge on and accommodate the respondents' additional comments and opinions. The questionnaire's second section was oriented to the main queries organized into 4 sub-sections, which have been made the inputs to the research model. Under the four sub-sections, the queries aimed at testing the expertise of supervisors in the research subject and testing the admission time. They also tested the regular research group meeting, the feedback (and pressure) on research work in progress, and supervisor' advice and support.

Besides, the model has been designed and utilized on the data to generate the results. The four parameters which were considered as hypotheses as well as the inputs to the research model, are explained as follows:

- The first hypothesis (H_1): the expertise of supervisors in the research subject (EIS), to test the graduate students' admission process.
- The second hypothesis (H_2): the regular research group meeting (RGM) is set to test the progress of supervision and the contribution of both supervisor and student.
- The third hypothesis (H_3): the feedback on the research work progress (FWP), to test the pressure impact as well as the hands off/on pedagogy.
- The fourth hypothesis (H_4): the Supervisor's advice and support (SAS), to test the running time of the GSSP.

The mediating variables that had been identified during the interview with experts are the trust, respect, timing, and investment. It is worth stating that the research method's framework, in Figure 1, was designed based on the authors' experience of being supervised and performing the supervision duties. The experts' opinions given during the interview as well as the literature review's ideas contributed to shape the research methodology too.

The Model Formulation

The regression model, Y, is a function of hypotheses X_i, and coefficients, β_i, with i=0, 1, 2… such that:

$$Y = \beta_0 + X_1\beta_1 + X_2\beta_2 + X_3\beta_3 + X_4\beta_4 + \varepsilon$$

or

$$ESP = \beta_0 + \beta_1 EIS + \beta_2 RGM + \beta_3 FWP + \beta_4 SAS + \varepsilon \quad \ldots\ldots\ldots\ldots\ldots (1)$$

Y = ESP, the Expectation for the GSSP, varying from -1 to 1 when it comes to correlations matrix.

- EIS, the expertise of supervisors in subject.
- RGM, the regular group meeting.
- FWP, the feedback on the work progress.
- SAS, the supervisor's advice and support; ε is the error term.

For the test, the null hypothesis is H_0 such that:

$$H_0 = \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0 \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Alternative hypotheses are $H_{1,2,3,4}$ and $\beta_{1,2,3,4}$ such that:

$$H_{1,2,3,4} \neq 0 \text{ and } \beta_{1,2,3,4} \neq 0 \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Any two of them are at least significant, as the overall model's significance is tested via F-test $F(m_1, m_2)$, such that:

$$F(m_1, m_2) = \frac{V_1 / M_1}{V_2 / M_2} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (4)$$

- V_1 , the variation summation due to explanatory variable.
- V_2 , the summation of non-explained variation (squared residuals).
- M_1, the degrees of freedom of K explanatory variables (K-1).
- M_2, the residual degrees of freedom (N-K).

The information in the questionnaire was then edited (or rearranged) following the variables of the designed model, coded and tabulated by using SPSS (version 21), so as to generate the necessary results. Looking at Table 1, the R square evaluated to 0.796 units, which is greater than 0.70, explains the good fitting of the data with the designed model.

Table 1: The Model in Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.892[a]	0.796	0.723	0.41175

'a' stands for predictors: (Constant), EIS, RGM, FWP, AS

Analysis of the Research Data

To generate the research results in the purposed line of research and to test the hypotheses, the analysis of data was carried out by SPSS, a software tool. The data reliability is measured by the Cronbach Alpha (Azure, 2016; Croasmun & Ostrom, 2011). To meet the criteria of reliability, Cronbach Alpha should be equal to or be more than 0.70. Pearson correlation and multiple regression analysis was used as methods to test the relationship between variables of this study.

Results and Discussion

The Results Based on ReliabilityaAnd Validity Test

Presented in Table 2, the test value of Cronbach alpha for the expertise of a supervisor in the subject is 0.838; that for the regular research group meeting is 0.754; that for the feedback on the research work progress is 0.790 and that for the supervisor's advice and support is 0.846. All the values are greater than 0.70, to means both the reliability and validity of the data are proven. Their representative mean, variance, and standard deviation are shown in Table 3.

Besides, the correlations Matrix, in Table 4, is built between all the parameters involved in the research model; all the parameters (otherwise referred to as variables) are in the positive correlation. The correlation coefficients range from 0.204 to 0.820, knowing that the benchmark is from -1 to +1. As the analysis of variance (ANOVA) is carried out, the findings are briefly summarized in Table 5 and Table 6; the predictors were evaluated through multiple regression analysis.

Table 2: The results based on Cronbach Alpha and descriptive statistical test (Primary data source, 2022)

Variables	Cronbach Alpha Reliability Test	Descriptive Mean	Statistical test for the Standard Deviation
EIS	0.838	4.0500	0.79173
RGM	0.754	3.9200	0.52476
FWP	0.790	4.4625	0.45541
SAS	0.846	3.5625	0.85792

Table 3: Scale Statistics (Source: Primary data, 2022)

Mean	Variance	Std. Deviation	N of Items
19.9750	7.141	2.67231	4

Table 4: Correlations Matrix

	EIS	RGM	FWP	SAS
EIS	1			
RGM	**0.787****	1		
FWP	0.566	0.456*	1	
SAS	0.204	0.330	0.612*	1

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

Table 5: ANOVA test

Model		Sum of Squares	df	Mean Square	F	Significance
1	Regression	9.265	4	1.853	10.929	0.000[b]
	Residual	2.373	14	0.170		
	Total	11.638				

'b' Predictors: (Constant), EIS, RGM, FWP, SAS

- For the third hypothesis, H_3, testing the feedback on the research work progress, there is a positive significant role, 1.4%, of expectations in the successful GSSP.
- For the fourth hypothesis, H_4, testing the supervisor's advice and support, there is a positive significant role, 0.3%, of expectations in the successful Graduate Students' Research supervision pedagogy. This shows that all alternative hypotheses are acceptably proven.

Table 6: Regression coefficient analysis

Model		Non-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.216	1.113	(β)	1.093	0.293
	EIS	0.442	0.177	0.448	2.499	0.026
	RGM	0.605	0.327	0.406	1.853	0.085
	FWP	0.663	0.334	0.428	1.785	0.014
	SAS	0.428	0.251	0.418	2.305	0.003

All the values, in Table 6, are calculated on basis of the Likert-Type scale (Croasmun & Ostrom, 2011); thus, the effects are studied:

- For first hypothesis, H_1, testing the significance of expertise of a supervisor in the research subject. The first hypothesis has a positive significant role, 2.6%, as expected for the successful GSSP.
- For the second hypothesis, H_2, testing the regular research group meeting, there is a strong relationship with expectations in the successful GSSP. The significance is 8.5%.

Discussion

The supervision process requires both dedication and skills. To be a good and successful graduate students' research supervisor, there is a need of the deep involvement into the continuous and interactive learning dialogues by both the supervisory team and research students. The relationship and interactive learning environments should not only be developed in academic affairs but also in cultural awareness and appreciation of cross-cultural differences in learning approach. The cross-cultural projects are especially important when Graduate Students' Research students are increasing in number and cultural backgrounds as well as topics and methodologies that students might undertake (Wisker, as cited in Knowles, 2007, p. 101).

A graduate students' research scholar must be given a certain freedom to think and judge.

A successful graduate students' research supervisor is a moral person who oversees, trains, and assists the minds of the researchers to make original scientific outcomes, to publish articles in leading and no-predatory journals, to possibly publish books with leading publishers and to make technical designs. The graduate student supervision process is not an act of putting much pressure on a graduate student; it is rather a wise way to regularly assess the success of the pre-planned and scheduled research activities. In case of any distant separation between supervisors and supervisees, the modern era of computer and network technologies must be exploited and supervisors would better get familiar with the intelligent tutoring systems (Aleven, Mclaren, Sewall, & Koedinger, 2009). A training on some tutoring systems is necessary, an example is taken on Moodle (Krassa, 2013); it would be an added pedagogical issue to make sure the research works match with the current standards.

The research supervision, at the graduate students' research level, is merely considered as readiness to being consulted by students. As documented from Määttä (2012), and putting together with the findings in this research work, four qualities of the good supervision process are (i) the supervisor's will or commitment to do the supervision duties; (ii) the knowledge if not the understanding of the supervision process; (iii) the practice of the supervision to ensure the research is done under scientific quality; (iv) the institutional updates, training, and proficiency in the matter of Graduate Students Supervision Pedagogy (GSSP).

All those points must be combined with the maintained good personality and professional ethics in teaching which is technically assessed as the very good teaching portfolio.

It is argued that the distant graduate students' research programs can be done online (depending on the major field of research), supported by video conferencing calls. Through these channels, the communication with supervisors cannot be restricted as it would be while scheduling regular research group meeting. The distant relationship should be authentic and the inherent feedback during the online communication must be timely done. That's to say, supervisors should be interested and motivated in teaching the supervisees, in a way that makes the supervised students feel supported and encouraged. This relationship should involve bi-directional trust.

For the brighter academic future, the graduate students' research supervision should be based on the true knowledge where any kind of superstition (Cortes-Ramírez, 2014, p. 27) must be avoided. This research puts forward the relationship in the hands-on pedagogy, necessary for

the successful graduate students' research supervision practice; but, the emphasis is put on the regular group meeting organized in such a way that graduate students research students get enough time to present their work progress reports. During the meeting, a sharp eye must be put on the pre-scheduled time; the graduate students research supervisor's advice and supports in the same research direction are valuable, in the mutual academic respect. The meeting will be organized in the form of forums where graduate students and research supervisors are invited, at least once per month or per trimester. In academic forums, not only supervisors normally comment on the presented research progress reports, but also the Graduate Students research fellows give comments with enough supports. In the contrary, the hands-off supervision, under whatever circumstances, is evaluated unsuccessful graduate students' research supervision pedagogy. The hands-off pedagogy often ends up with plagiarism; an example is taken from publications which were made by translating other languages' published works, and such graduate research students can neither defend the source of their research data nor explain their paper's results. Such behaviors are academically rejected, if not banned. Plagiarism checking software tools are recommended: the successful supervisor should beware of originality; not only the text, but also data and results must be scrutinized.

Conclusion

Successful graduate students' research supervision strongly relies on a relationship between research students and their supervisors. A superstition-free relationship is suggested for the successful graduate student supervision process, which will be balanced and rooted on regular research meeting. Viewing the graduate student supervision in three-dimensions (3D) with the mindset that a graduate student must be given freedom to think and judge as a first author of his/her research, the group size and nature (cross-cultural projects or not) will be one of the dimensions. The supervisor's role would be a second dimension and finally, the supervisory team would be considered as a third dimension.

Based on this research data and results, this research is an added value to the existent research works in the field of education: the research methodology engaged many parameters as inputs to the pedagogical issues for the successful graduate students' research supervision.

Acknowledgements

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Different supervisors and graduate research students from different corners of the world are acknowledged for their valuable input answering and commenting on the research questionnaire.

Appendix: The Research Questionnaire: Assessment of the "successful graduate student supervision pedagogical approach and hand the poor graduate students supervision pedagogy "

Dear respondent, as Supervisors of several research topics, we are conducting a research on the **"successful versus unsuccessful graduate student research supervision pedagogy"** with the motives to be published. We wish that readers would improve their skills in the graduate student supervision pedagogy by referring to our article. Though we have got some eye-witnessed findings and have reviewed substantial publications, we'd furthermore contribute to this research; your valuable inputs are highly appreciated. You'd, please base on your experience being the PhD student, the PhD theses Supervisor or/and the co-supervisor, to fill in this questionnaire, which takes less than 20 minutes. In any case, you may have any further inquiry regarding this issue, please reach out to us, via the email: g.rushingabigwi@gmail.com or phones: +250 785 469 187.
As you fill in the questionnaire's soft copy, you'd please copy this box ☑ and paste it where you want to tick (just replacing the empty box ☐). I you are filling it in hard, you'd please use a pen to tick only one choice. Thank you!

Part I: Personal Data: *Very Important, Thank You!

1. Age*

☐ 20-25

☐ 26-30

☐ 31-35

☐ 36-40

☐ 41-50

☐51-60

☐ 61 and above

2. Education Level*

☐ PhD

☐ PhD Student

3. Position*

☐ PhD Theses Supervisor

☐ PhD Theses Co-Supervisor

☐ Postdoctoral Researcher

☐ PhD Student

☐ None of the above. *Please precise:* .....

Part II: The Questionnaire

Please note that, throughout, **"1"** means **"Strongly disagree"**; **"3"** means **"Agreed on average"** and **"5"** means **"Strongly agree"**.

Admission Time (Please tick one with ☑)

1. A PhD Thesis Supervisor should be involved in the Admission of PhD Students (*ie.* during the candidates selection process).
   ☐1 ☐2 ☐3 ☐4 ☐5
2. The PhD Research Proposal should fall in the category of the Supervisor's research fields and interests, no exceptions; ☐1 ☐2 ☐3 ☐4 ☐5
3. The initially proposed PhD Research Topic can be modified several times.
   ☐1 ☐2 ☐3 ☐4 ☐5
4. The supervisor would better contribute to the inputs in the PhD Research Proposal.
   ☐1 ☐2 ☐3 ☐4 ☐5
5. A PhD Student should be assigned a Supervisor by the Admission Office; a Supervisor should not be involved in the process of Admitting PhD Students.
   ☐1 ☐2 ☐3 ☐4 ☐5
6. The Department should make sure that PhD Research Proposals' Quality is assured in agreement with the with the schools goals and standard.
   ☐1 ☐2 ☐3 ☐4 ☐5
7. The initially proposed PhD Research Topic cannot be modified at all.
   ☐1 ☐2 ☐3 ☐4 ☐5
8. The supervisors would expect innovation points from their PhD Students; contributing to their proposal equals to confusing their PhD Students.
   ☐1 ☐2 ☐3 ☐4 ☐5
9. The background's culture as well as where the previous studies were done, surely influence the PhD supervision tasks in the matter of misunderstanding between the Supervisors and the PhD Students.
   ☐1 ☐2 ☐3 ☐4 ☐5
10. Your additional inputs under this sub-topic. Please write down in not more than THREE lines:
    .....

During the course of PhD Training (Please tick one with ☑)

11. A regular (weekly) meeting should be organized between PhD Students and their Supervisors (and co-supervisors if any).
    ☐1 ☐2 ☐3 ☐4 ☐5
12. The PhD Student should be dismissed upon failing onto the first PhD Thesis assessment by the Department's Research Panel. ☐1 ☐2 ☐3 ☐4 ☐5
13. The PhD Student should be better assigned a new Supervisor upon failing onto the first PhD Thesis assessment by Department's Research Panel.
    ☐1 ☐2 ☐3 ☐4 ☐5
14. For sake of a better and a timely completion, the PhD Student would better evaluate themselves and be given the rights (an option) to change the supervisor scheme, just after one year of research.
    ☐1 ☐2 ☐3 ☐4 ☐5

15. I know some PhD Students who graduated on time, thanks to regular contacts (group meetings), call it the teamwork or the hands on pedagogy, organized by their Supervisors.
    ☐1 ☐2 ☐3 ☐4 ☐5
16. The failure as well as the success of a PhD Student to be awarded a Degree equals to the failure of his/her Supervisor.
    ☐1 ☐2 ☐3 ☐4 ☐5
17. Each PhD Student should be given the regular (weekly) and individual/private advice by his/her Supervisors.
    ☐1 ☐2 ☐3 ☐4 ☐5
18. The PhD Student should be always reminded that if s/he fails s/he will be immediately dismissed upon failing onto the first PhD Thesis assessment by Department's Research Panel. ☐1 ☐2 ☐3 ☐4 ☐5
19. The supervisors would expect innovation points from their PhD Students, and they'd always be the first and corresponding Authors for their PhD Students' Publications.
    ☐1 ☐2 ☐3 ☐4 ☐5
20. The success of a PhD Student is only indicated by the high quality of publications s/he will have made: SCI papers only; the conference publications are qualified as rubbish papers.
    ☐1 ☐2 ☐3 ☐4 ☐5
21. The PhD Students should be assigned any other tasks such as supervising (as a co-supervisor) the undergraduate and Master's students, just to re-sharpen his academic maturity.
    ☐1 ☐2 ☐3 ☐4 ☐5
22. Your additional inputs under this sub-topic. Please write down in not more than TWO lines:
    .....
    .....

Working under pressure during the course of PhD Training (Please tick one with ☑)

23. Putting much pressure on a PhD Student rather confuses his/her mind.
    ☐1 ☐2 ☐3 ☐4 ☐5
24. A PhD Theses Supervisor should first listen to the student before pressurizing him/her.
    ☐1 ☐2 ☐3 ☐4 ☐5
25. The PhD Student should be better given the written research-work guidelines, s/he must follow the pre-set time schedules and s/he must be assessed accordingly.
    ☐1 ☐2 ☐3 ☐4 ☐5
26. I know some PhD Students who succeeded, thanks to much pressure by their supervisors.
    ☐1 ☐2 ☐3 ☐4 ☐5
27. Putting much pressure on a PhD Student often help him/her to meet the deadlines; otherwise, most students spend time in computer games, chatting and listening to the online news.
    ☐1 ☐2 ☐3 ☐4 ☐5
28. A PhD Theses Supervisor always understands more than his PhD Students; s/he should always remind them that s/he is their supervisors and they should 100% follow his/her guidelines. ☐1 ☐2 ☐3 ☐4 ☐5
29. The PhD Student should work with all his/her efforts to have the good publications, otherwise, no success at all.
    ☐1 ☐2 ☐3 ☐4 ☐5

30. The direct involvement of the Department (or School) is necessary while there is a need to solve the conflicts between a PhD Student and the supervisor; this should be done as soon as possible, before reaching to the middle of the totally scheduled time of the PhD research activities.
    ☐1 ☐2 ☐3 ☐4 ☐5
31. I know some PhD Students who failed on their PhD Studies due to much pressure induced by their Supervisors , or call it poor supervision due to high pressure.
    ☐1 ☐2 ☐3 ☐4 ☐5
32. I know some PhD Students who gave up their PhD Studies due to much pressure induced by their Supervisors, or call it poor supervision due high pressure.
    ☐1 ☐2 ☐3 ☐4 ☐5
33. I know some PhD Students who died due to much pressure induced by their supervisors, or call it poor supervision due high pressure.
    ☐1 ☐2 ☐3 ☐4 ☐5
34. I know some PhD Students who over-extended their pre-panned schedules do to hands off pedagogy of Supervision.
    ☐1 ☐2 ☐3 ☐4 ☐5
35. Your additional inputs under this sub-topic. Please write down in not more than TWO lines:
    .....
    .....

Part III: Acknowledgments

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