University Politehnica of Bucharest

EUA-CDE
EUA Council for Doctoral Education

Doctoral supervision

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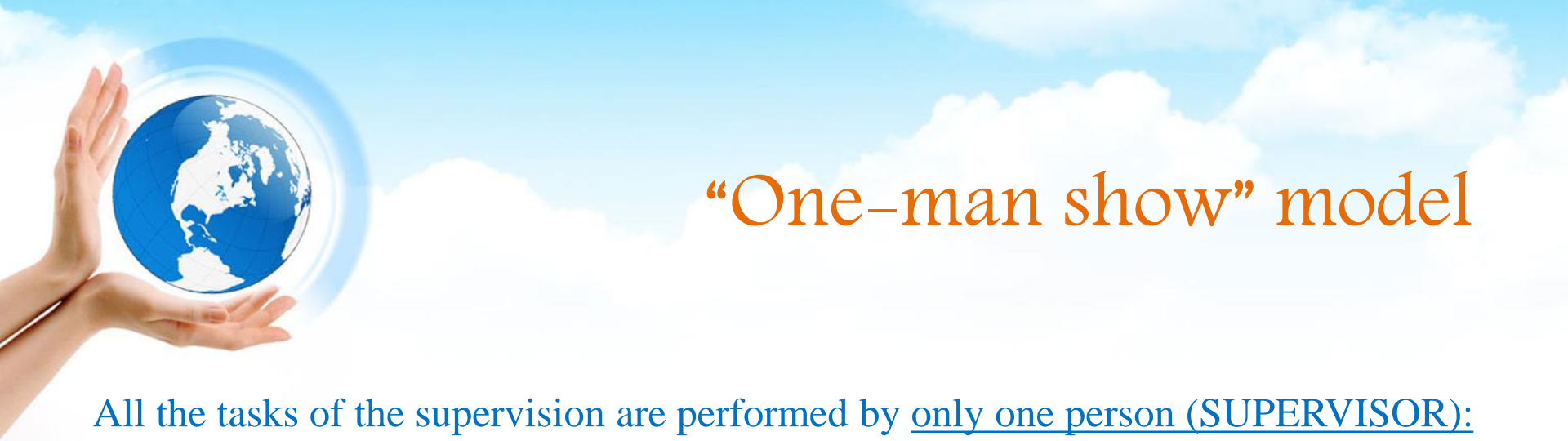
from traditional "one man show" to "team collaboration" model

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9th EUA–CDE Workshop
TU Delft, Netherlands
20–21 January 2016

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"One-man show" model

All the tasks of the supervision are performed by only one person (SUPERVISOR):

a) Monitor Administrative Tasks
b) Create a supportive Encouraging Relationship
c) Enable Reflection
d) Teach and Evaluate Personal & Professional Development
e) Recommend future careers
f) Time management recommendations
g) Maintain Professional & Ethical Standards

IMPOSIBLE TO PLAY IN A RESTRICTED TIME!

EFFICIENCY OF SUPERVISION!

ONE – MAN SHOW MODEL OF SUPERVISION

The focus of the traditional model of supervision [3] is usually on the:

- Technical aspects of the research
- Requirements of the discipline
- Content of knowledge
- Production of a thesis

WAY OF DOING:

1. Single supervisor
2. Multiple supervisor

[3] Ahmed A. Wadee, Mayra Keane, Tan Dietz Driekie Hay, "Effective PhD Supervision Mentorship and Coaching", Rozenberg Publishers, Amsterdam, 2010
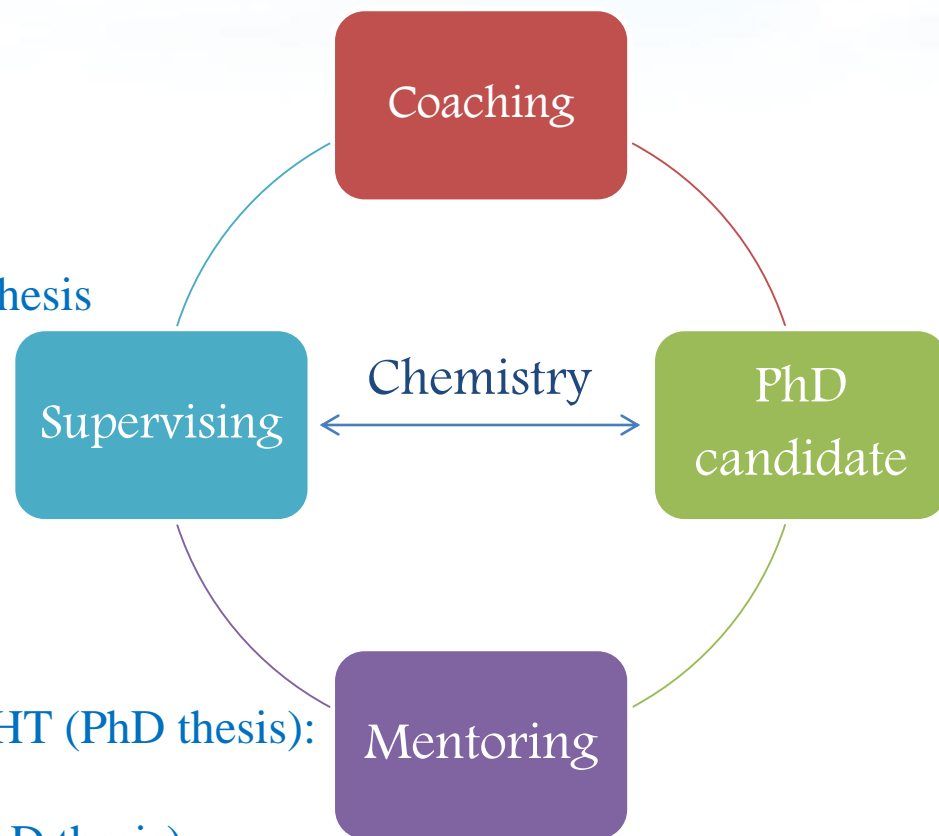
Basic principles for supervision

"... caring for students has to be the key"[1]

a) Good teaching: concern for students, interest in their progress, and the provision of thoughtful and timely feedback

b) Intensive teaching: professional commitment involving much time and energy

c) Adjusting the teaching to every research students who are highly individual

d) Building students` confidence in their personal research capabilities and future careers

e) Coaching role especially when students face crises of confidence or personal problems

f) Mentoring role: the supervisors are aiming to be a model for the whole "road" of PhD candidates

[3] James, R. and Baldwin, G., "Eleven practices of effective postgraduate supervisors", University of Melbourne, 1999

Chemistry of supervision

A REAL CHEMISTRY PROCESS:

$$\text{Supervisor + PhD candidate} \underset{\text{Mentoring}}{\overset{\text{Coaching}}{\rightleftharpoons}} \text{PhD thesis}$$

Coaching

Supervising ⟷ Chemistry ⟷ PhD candidate

Mentoring

TO SHIFT THE EQUILIBRIUM TO THE RIGHT (PhD thesis):

a) More PhD candidates (impossible for one PhD thesis)
b) More Supervisors: co-tutelle
c) Using "catalysts" by Coaching and Mentoring

Mentoring

- **Primary tasks[3]:**

a) Providing of emotional and moral support

b) Professional assistance and guidance with the student`s career and further development

c) Development of trust, confidence and mutual respect between the student and mentor

d) Modelling to the point of "showing the way"

e) Seeing the signs of stress in a PhD candidate

- **Support for PhD candidates in:**

1. Time management

2. Approval of research protocols

3. Timely submission of data and write-ups to the supervisor

4. Submission of research for examination

THE POWER OF **MENTORING**

http://www.proctorgallagherinstitute.com

[3] Ahmed A. Wadee, Mayra Keane, Tan Dietz & Driekie Hay, "Effective PhD Supervision Mentorship and Coaching", Rozenberg Publishers, Amsterdam, 2010

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Mentoring and Coaching
–Complementary Resources–

" –Would you tell me, please, which way I ought to go from here?"
"–That depends a good deal on where you want to go to" – said the Cat
"–I don`t much care where" – said Alice
"–Then it doesn`t matter which way you go" – said the Cat [4]

- **Mentoring** – a long-term, informal and <u>field</u> and <u>personality</u> based. It involves an <u>older</u> mentor and a PhD candidate

- **Coaching** – a short-term, formal and goal-orientated, involving two <u>equal people in power</u>, from different fields or disciplines [3]

Integration of supervision, mentoring and coaching under "one umbrella"-supervisor may be rather difficult and time consuming.

[3] Ahmed A. Wadee, Mayra Keane, Tan Dietz Driekie Hay, "Effective PhD Supervision Mentorship and Coaching", Rozenberg Publishers, Amsterdam, 2010
[4]Carroll, L. , "Alice`s Adventures in Wonderworld", Macmillan&Co., London (p. 91-92), 1922

NOT EVERY CHEMICAL REACTION IS POSSIBLE TO OCCUR!

THE SUPERVISORS SHOULD MEET THE FOLLOWING EXPECTATIONS OF THE PhD CANDIDATES [2]:

1. To be friendly, open and supportive
2. To be available when needed
3. To have a good knowledge of the research area
4. To be constructively critical
5. To have sufficient interest in their research to put more information in the students` path
6. To read their work well in advance
7. To structure the situation so that it is relatively easy to exchange ideas
8. To be sufficiently involved in their success to help them get a good job at the end of it all!

[2] Phillips, E.M. and Pugh, D.S., "How to get a PhD", Open University Press, 1987

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University POLITEHNICA OF Bucharest, Romania

- the largest and the oldest technical university in the country and among the most prestigious universities in Romania: ~ 24,000 students enrolled in BSc, MSc, PhD studies

- All fields of engineering are covered: electrical, mechanical, ICT, materials science, transports, applied chemistry, etc.

- University POLITEHNICA of Bucharest welcomes foreign applicants, offering a number of 20 B.Sc. and 25 M.Sc. programs taught in English, French or German.

- full member in several academic organizations, the main ones being Conference of European Schools for Advanced Engineering Education and Research (CESAER), International Association of Universities (IAU), European University Association (EUA), Agence Universitaire de la Francophonie (AUF) etc. However, UPB paid a special attention to bilateral cooperation agreements (around 200 agreements in 2010) with similar universities, mainly from Europe, Japan, or the United States of America

- 1700 staff members from which 334 are full professors

- Excellence in education and research in Romania – classified in the top 10 universities at last assessment exercise officially did by Ministry of Education and Research in 2011

PhD studies, 3 years

Doctoral Schools

1. Electrical Engineering
2. Power Engineering
3. Automatic Control and Computer Science
4. Electronics, Telecommunications and Information Technology
5. Mechanical Engineering and Mechatronics
6. Engineering and Management of Technological Systems
7. Biotechnical Systems Engineering
8. Transports
9. Aerospace Engineering
10. Material Science and Engineering
11. Applied Chemistry and Materials Science
12. Applied Sciences
13. Entrepreneurship, Business Engineering and Management

Strategies for advanced research and innovation included in doctoral programs

- **PURPOSE**: Meeting an identified unmet need in a particular region

- **CORE:** Advanced collaboration between doctoral schools, regional authorities and industry located in that area

- **ACTIVITIES**:
- -   Research and innovation orientated towards the region needs
- -   Smart specialization approach to combine and optimize the resources
- -   Addressing and solving all the problems identified

- **UMBRELLA:** Collaborative doctoral programs efficiently managed by doctoral schools

Team Collaboration Model

- **According to the law of education 2011: every PhD candidate will benefit from a Guidance Commission**

- **UPB: The Guidance Commission consists of three people with different tasks: Mentoring, Coaching, Second (Co-) Supervision (MCS)**

- **The role of Co-Supervisor is officially recognized and it is a compulsory activity for those who want to get the Supervision appointment.**

- **Mentoring and Coaching still not practically implemented due to: old mentalities, lack of qualified people to do the jobs, etc.**

- **The Supervisor is still looked as the "boss" and not enough collaboration with the Guidance Commission usually occurs**

SWOT Analysis of Guidance Commission

STRENGTHS

- The PhD candidate will gain all the attention, so all the conditions for a successful process are fulfilled

- The efficiency of supervision process is definitely enhanced since all the supervision tasks are accomplished in a less time

WEAKNESSESS

- The collaboration inside such a heterogeneous team may be difficult

SWOT Analysis of Guidance Commission

OPPORTUNITIES

- The PhD candidate is treated with high care
- The problems encountered during the studies are solved much easier

THREATS

- Some duties of Supervisor may be passed to the Guidance Commission, so that the supervisor's role is restricted leading to less authority in supervision

Questions

- Are the doctoral schools prepared to address the challenges of "team collaboration model" ?

- Special changes are required to fill in the positions for such teams?

- Is the Guidance Commission proper for traditional activities included in doctoral programs?

- Do we need special measures at institutional level for implementing the "team collaboration model" and to discourage the "one-man show" approach ?

UNIVERSITY POLITEHNICA OF BUCHAREST – RECTORATE BUILDING

THANK YOU VERY MUCH FOR YOUR ATTENTION !