



HCI International 2017

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DATA ANALYSIS OF COACHING AND ADVISING IN UNDERGRADUATE STUDENTS. AN ANALYTIC APPROACH

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Aristos Campus Mundus 2015

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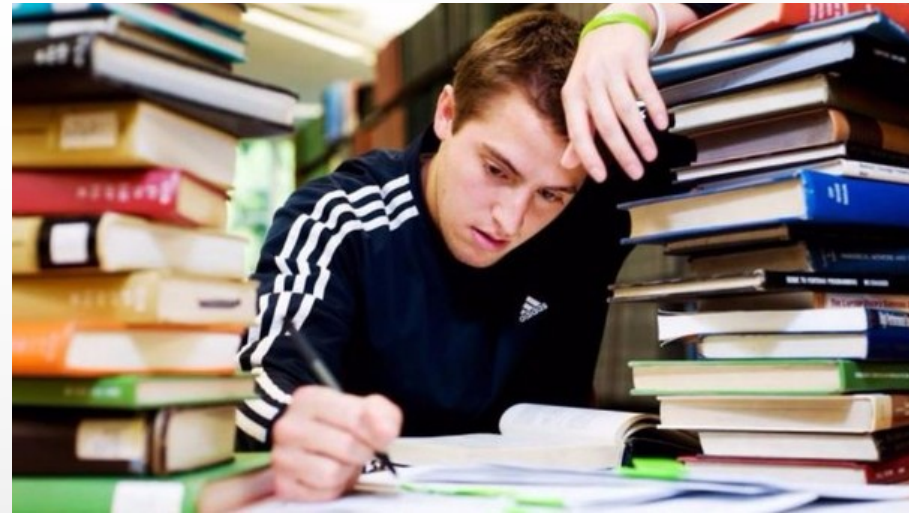
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FRAMEWORK



ENGINEERING STUDIES...ARE DIFFICULT
HIGH RATES OF “CRISIS”... DROP-OUTS
MOTIVATION IN THE FIRSTS COURSES
TUTORING/ADVISING SERVICES
INTRODUCING COACHING TECHNIQUES



Data analysis of coaching and advising in undergraduate students. An analytic approach



TUTOR FUNCTIONS

- **INTRODUCE** HIM/HERSELF PERSONALLY AT THE BEGINNING OF THE STUDIES.
- OBTAIN TEACHERS' COLLABORATION TO **DETECT PROBLEMS** THAT CAN AFFECT THE STUDENTS AND INFORM ABOUT ANY SITUATION CONCERNING THE STUDENT, TO HAVE IN MIND ANY ACADEMIC SITUATION TO FOLLOW UP.
- REGULARLY **FOLLOW UP WITH THE STUDENT TO IDENTIFY ANY PROBLEMS**, EVEN ON A FAMILY LEVEL. REGARDING THIS SITUATION, REPORT TO THE APPROPRIATE AUTHORITIES RESPONSIBLE FOR THAT SITUATION. ATTEND STUDENTS, FAMILY AND TEACHERS QUICKLY AND EFFECTIVELY.
- **RECORD** AND KEEP RECORD OF THE RESULTS OF INTERVIEWS.
- **QUESTION** HIM/HERSELF AFTER EXAMS, ESPECIALLY IN CASES WITH HIGH FAIL RATE.
- **ATTEND ALL ACADEMIC COUNCILS** TO TAKE CARE OF ALL CASES, AS WELL AS MEETINGS REFERRING TO EDUCATIONAL PLANNING.
- **HELP** THE STUDENTS WITH THE SUBJECTS THEY CHOOSE AND EVERY QUESTION THEY MAY HAVE.
- **STUDY AND ANALYZE** INCOMPATIBILITIES BETWEEN SUBJECTS.
- **COLLABORATE** IN THE ELECTION OF THE DELEGATE FOR EACH COURSE AND THE REPRESENTATIVES OF THE STUDENT COUNCIL.
- **TAKE CARE OF COMPLAINTS, CLAIMS AND SUGGESTIONS** OF THE FORMATION PROGRAM AS WELL AS THE SERVICES AND THE INFRASTRUCTURE.

COACHING

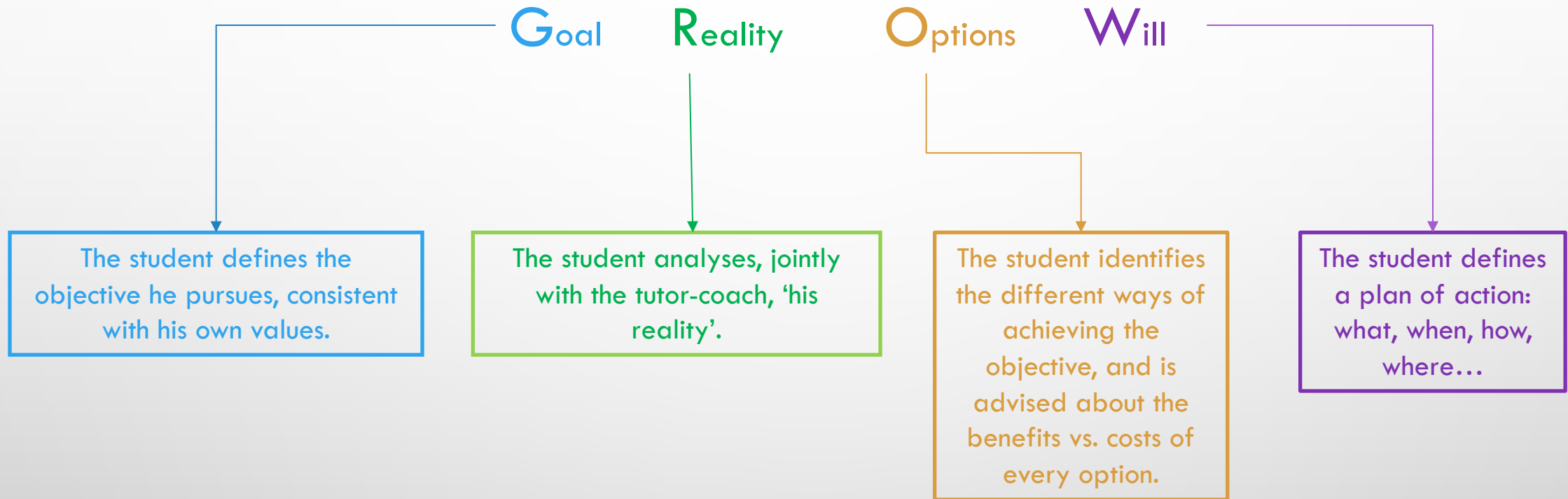
How and when can coaching help us?

A way of enhancing people's consciousness.

Coaching aims for people to be more aware of the reality they are living, in order to find a way of achieving one's objectives or solving one's problems.



THE METHOD – GROW MODEL



SAMPLE & PROCEDURE

- 41 first year students from academic years 2014-15 and 2015-16.
- Degrees of Telecommunications and Computer Engineering from La Salle, Universitat Ramon Llull.
- An interview was carried out in order to identify the academic situation and personal profile.
- **MAIN INITIAL SITUATIONS:**

I want to
Personal problems
Frustration
Beliefs
Limiting
What to do?
Demotivation
Poor results

COACHING TOOLS

- Visualization at ten years
- Six thinking hats
- Exposition to the concepts of reactivity and proactivity
- Use of tales as metaphors to help students discover what they need to discover
- Helping to identify a clear objective through ponderous questions
- Question limiting beliefs with ponderous questions
- At an emotional level, identify the somatic triggers
- Exposition to the coherence triangle
- Abdominal breathing that helps relaxing and regaining self-control
- The wheel of life adapted to students

More data
in the
paper

ACADEMIC RESULTS

- Failed subjects at the end of the course and on the first semester:
 - The average result for a student in the experimental group is -0,62 (0,62 less failed subjects as the first semester, meaning there has been an improvement),
 - While in the control group, the result is +0,3 (worsening by an average of 0,3 subjects).

The improvement in academic performance of the experimental group with respect to the control group is of 0,92 subjects.

 - If we execute the same calculations excluding those students from both groups who dropped out of the degree, the results for the experimental group is -1,18, while for the control group it is -0,35 (0,83)
- In the control Group (at the end of the course) there were 35% of drop outs (all of them from the high risk group identified at the beginning),
 - In the experimental group the percentage of dropouts was reduced to 23,81%*

COACHING RESULTS

- 19% of the students show only one problem
- 47,6% shows two
- 28,6% shows up to 3 problems all together
- Only one person (representing 4,8% of the sample) showed 4 initial problems

<i>Coaching Activity</i>	<i>CA1</i>	<i>CA2</i>	<i>CA3</i>	<i>CA4</i>	<i>CA5</i>	<i>CA6</i>	<i>CA7</i>	<i>CA8</i>	<i>CA9</i>	<i>CA10</i>
Times used	13	11	15	4	13	9	3	12	2	1
Percentage	61,90	52,38	71,43	19,04	61,90	42,85	14,28	57,14	9,52	4,76

- The most used coaching techniques are:
 - Reactivity vs. proactivity (71,42%),
 - Ten years personal situation visualization (61,94%),
 - Identification of certain goals from fundamental and powerful questions (61,94%),
 - Exposure of the coherence triangle: think-do-feel (57,14%).

CONCLUSIONS

- The use of coaching as a work tool in academic tutoring has demonstrated its usability in the effective detection of problems in students
- These problems are critical when they affect the student's performance, especially in the first courses, where the risk of dropping out is higher
- Using an academic/learning approach we can identify primary the problems and the tools to apply in order to improve these situations
- It is necessary more time in comparison with the “typical tutoring meeting” and the support of the organization



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