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Zero Outage
INDUSTRY STANDARD

RESEARCHING LONG-TERM EFFECTS OF LEARNING COMMUNICATION- AND SOFT-SKILLS

developed by: University of Vienna
supported by: ZOIS

How Does a Student-Centered Course on Communication and Professional Skills Impact Students in the Long Run?

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CONTEXT

- Person-centered technology enhanced learning (PCeL)
- Master-level curriculum of SSME (Service-science Mngmt & Engineering) as a specialization of computer science
- Masaryk University in Brno, Czech Republic
- Mandatory master-level course on Communication and Soft Skills, taught in groups of < 20 students
- Survey among students from the last 10 years

OVERVIEW

Research Questions

Course on Communication and Soft Skills

- Aspired learning outcomes
- Course Structure and “philosophy”

Mixed methods: Qualitative Content Analysis

- design and instruments for data collection and analysis
- Findings
- Discussion

Implications and further research

Conslusions, Discussion

RESEARCH QUESTIONS (1)

RQ1 In how far students think that, in the long run, the course had helped them in communicating i) with their colleagues at work and ii) in their personal lives?

RQ2 In how far students think that, in the long run, the course had helped them in connecting to people for professional and/or social benefit?

RQ3 In how far students think that the course had motivated them to seek further development in the area of professional skills?

RESEARCH QUESTIONS (2)

RQ4 What is the students' "anchor", i.e., the first memory of the course, and what memories had stayed on their minds in the long run?

RQ5 Which valuable long-term effects of the course do students perceive in their i) working life and ii) personal life?

RQ6 Based on students' experience in the course, is there anything that influenced them (for example, an impact on their thinking, attitudes, or behavior)?

COMMUNICATION AND SOFT SKILLS: ASPIRED LEARNING OUTCOMES

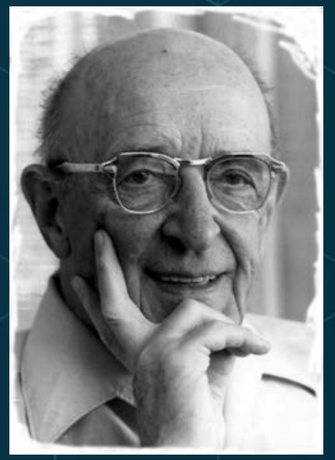
Goal: Promote social/professional skills of participants focusing on the context of project work

Let students participate in the elaboration of more specialized course goals according to the interests and needs they perceive! (agile way)

Goals on all three levels of learning, such as:

- Knowledge about teamwork, groups, …
- Moderation skills, feedback skills, …
- Openness, sharing attitude, acceptance, understanding, flexibility, learning from each other, …

COMMUNICATION AND SOFT SKILLS COURSE “PHILOSOPHY” AND MODE



Student-centered course

Students:

- Explore expectations
- Co-determine content
- Choose their team and theme
- Moderate the group for ~ 2,5 hours
- Give oral and written feedback
- Engage in self-evaluation

COMMUNICATION AND SOFT SKILLS COURSE STRUCTURE

Three 1,5 day interactive workshops

- Two to three weeks between workshops

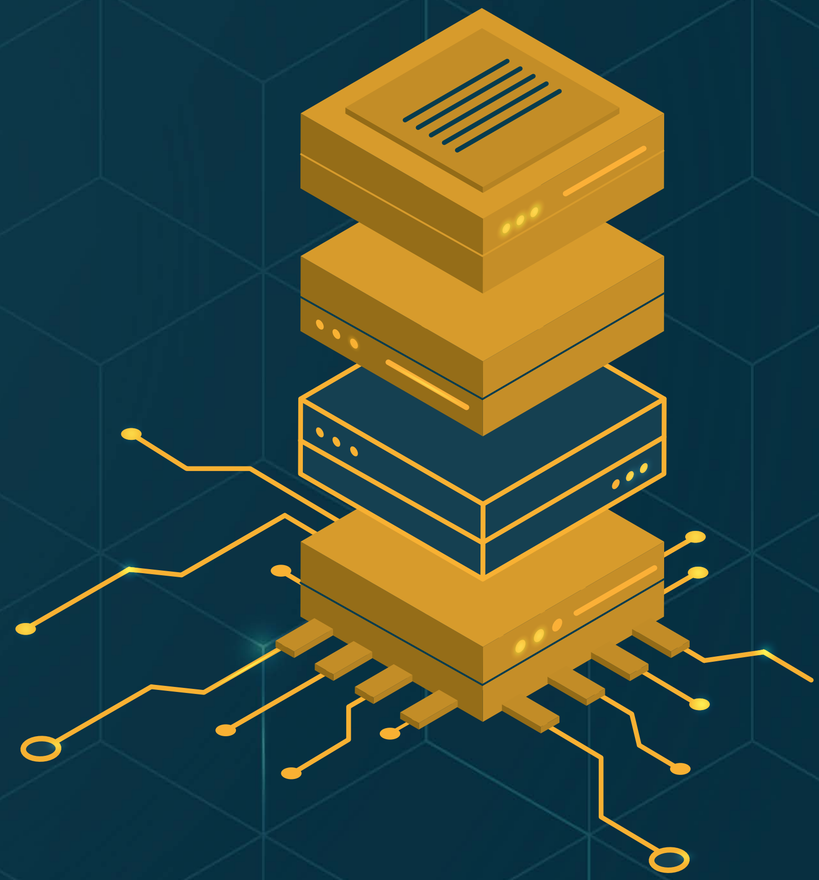
First WS facilitated by the instructor

- Expectations, active listening, moderation method, choice of teams and themes
- First consultation regarding resources

2nd and 3rd WS moderated by student-teams

- Give oral and written feedback
- Engage in self-evaluation

Three 1,5 day interactive workshops



Research Desing & Instruments

Mixed methods quantitative part

- Survey with closed-ended questions and descriptive statistics

Mixed methods qualitative part

- Survey (same as above) including open-ended questions
- Qualitative content analysis (Mayring, 2014)

Results and findings

Discussion, limitations, implications

SURVEY

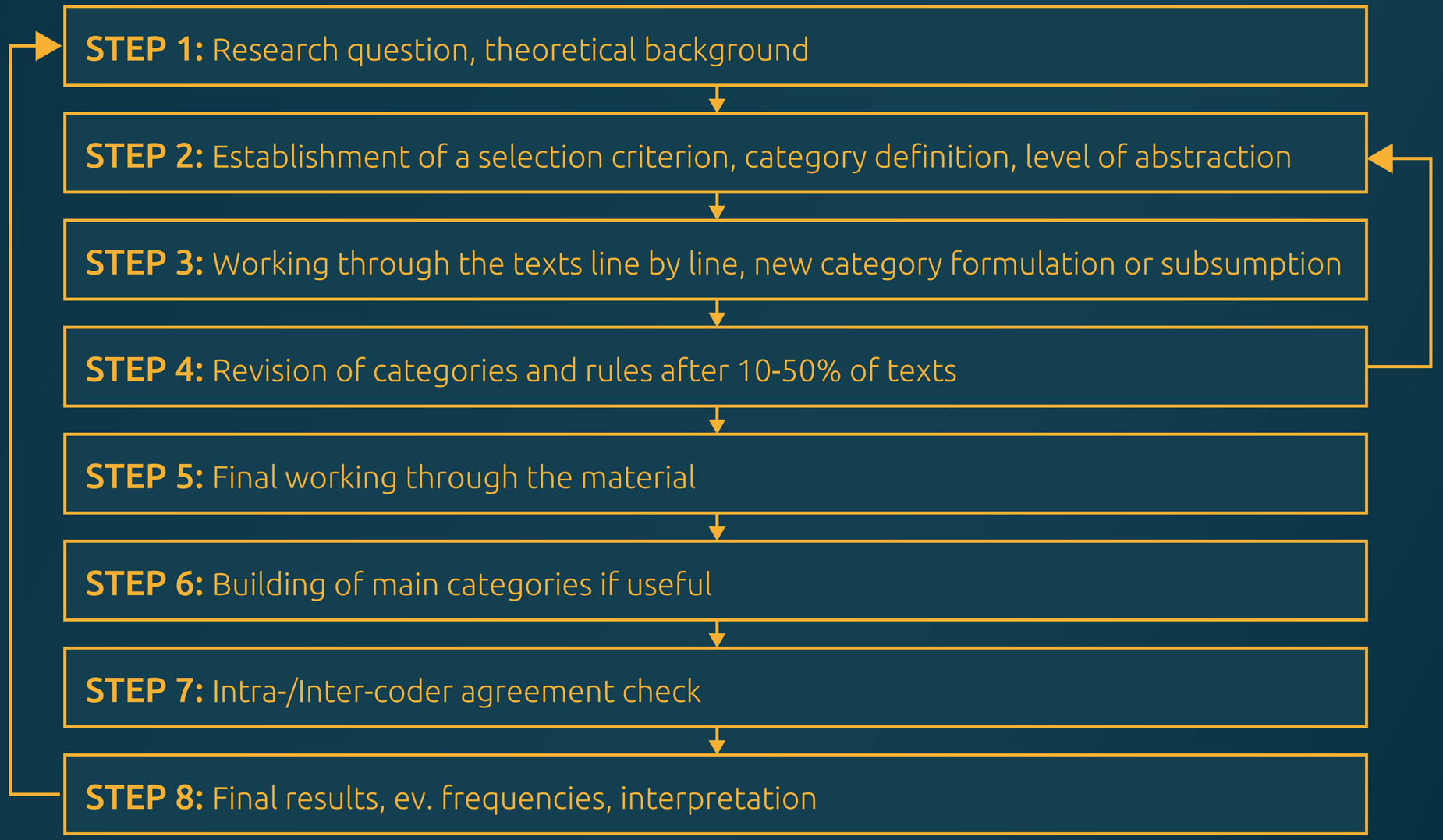
Online survey

Sent via email to ……..

Collected over MU-IS via transaction …

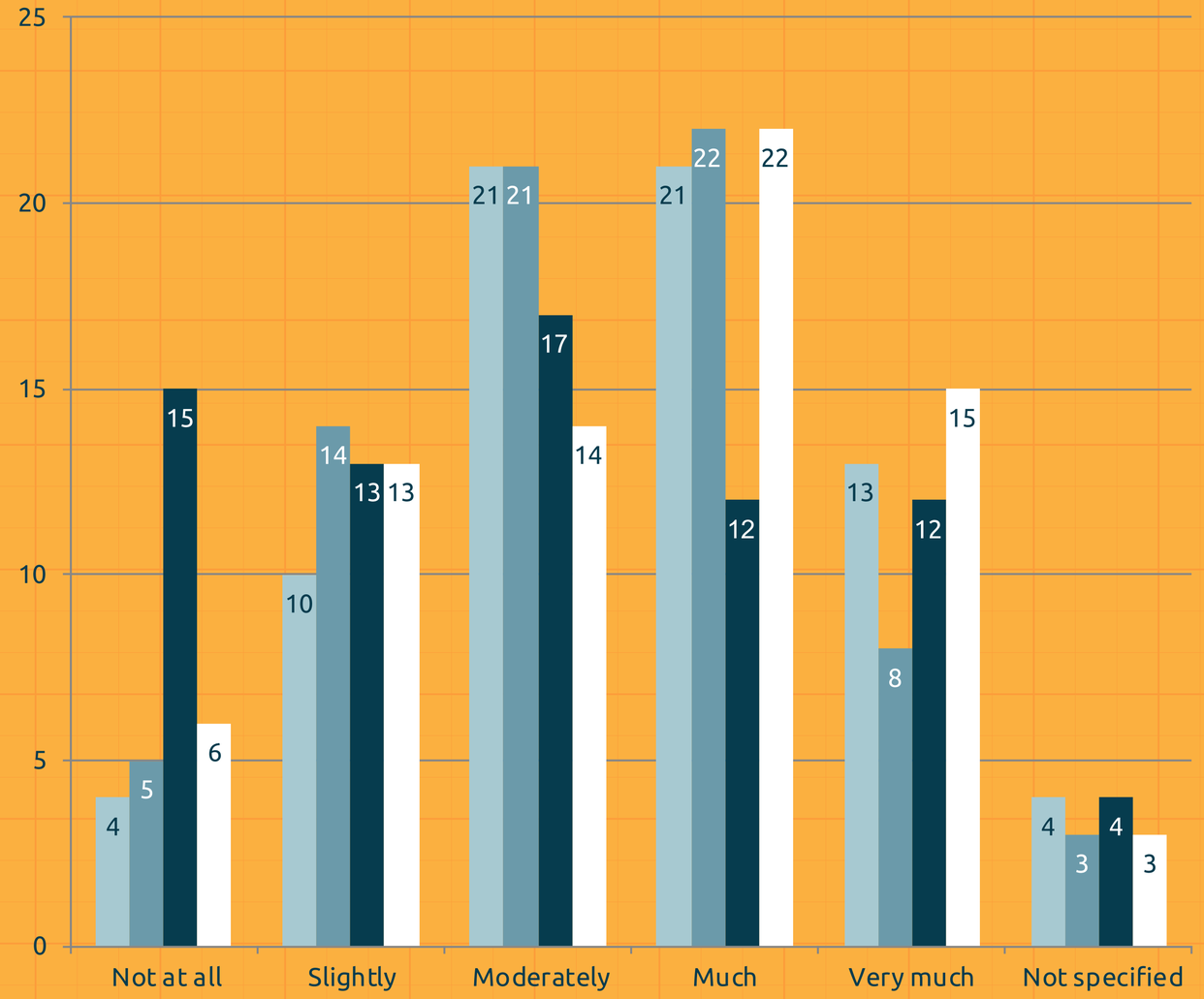
Response rate (1st wave):

QUALITATIVE CONTENT ANALYSIS: PROCEDURE



(Mayring, 2014, p.80)

Results RQ1-RQ3



- RQ1i: Do you think that, in the long-term perspective, the course helped you in communicating *with your colleagues at work*?
- RQ1ii: Do you think that, in the long-term perspective, the course helped you in communicating *in your personal life*?
- RQ2: Do you think that, in the long-term perspective, the course helped you *to gain useful contacts* (for example, for studying for finals, finding a job, or making friends)?
- RQ3: Do you think that the course contributed to your further active interest in the area of soft skills (for example, reading books or taking other courses)?

GRADUATES' SPONTANEOUS (RQ4I) MEMORIES OF THE COURSE ELABORATED (RQ4II)

RQ4i: Spontaneously, what is the first thing that comes to your mind?
RQ4ii: Can you elaborate on what you remember from the course?

Subcategory › sub-subcategory	Statement Count RQ4I	 RQ4II
Course related	33	57
› aspect of course as a whole	28	47
› course as such	5	10
Activities	19	35
› group activity	13	16
› presentation	2	11
› activity	4	8
Competences / skills	7	24
› other competence	3	15
› active listening	4	9
People-aspect	12	20
Knowledge item	4	20
Positive impression	14	17
Others	5	8
Negative impression	1	6
Stmt. Sum	95	187
No response	0	3

GRADUATES' SPONTANEOUS (RQ4I) MEMORIES OF THE COURSE – 1/2 ELABORATED (RQ4II)

RQ4i: Spontaneously, what is the first thing that comes to your mind?
RQ4ii: Can you elaborate on what you remember from the course?

Subcategory › sub-subcategory	Prototypical example	Statement Count RQ4i	 RQ4ii
Course related		33	57
› aspect of course as a whole	"I remember that we have worked more in teams compared to other courses and in the process applied individual soft skills learned in the course."	28	47
course as such	"It was a good guide to soft skills everybody needs in his or her life."	5	10
Activities		19	35
› group activity	"Working closely with other members of my presentation team."	13	16
› presentation	"Teaching a topic to a group of people while keeping them engaged."	2	11
› activity	"The most interesting thing was to prepare materials for my schoolmates regarding [a] chosen topic. It's quite an experience for my life."	4	8
Competences / skills		7	24
› other competence	"It's [… the course] not about knowledge, but rather, it gave me a way to communicate with people I see for the first time. It gave me self-confidence and showed that communication can be effective in other ways than verbally. In fact, it gave me more than most of the other courses of the Master Study."	3	15
› active listening	"I still recall the basics of active listening and its importance. During my work I do often come back to this topic and search for additional books and material."	4	9
…		…	…
Stmt. Sum		95	187
No response		0	3

GRADUATES' SPONTANEOUS (RQ4I) MEMORIES OF THE COURSE – 2/2 ELABORATED (RQ4II)

RQ4i: Spontaneously, what is the first thing that comes to your mind?
RQ4ii: Can you elaborate on what you remember from the course?

Subcategory › sub-subcategory	Prototypical example	Statement Count RQ4i	 RQ4ii
...	...	...	...
People-aspect	"I remember that with the other participants we became very quickly a great group where everybody supported each other."	12	20
Knowledge item	"Also the topic of conflict resolution was helpful for me later."	4	20
Positive impression	"Positive feelings about cooperation in my team and with teachers. I am still meeting my team members from time to time."	14	17
Others	"During my work I do often come back to this topic and search for additional books and material. [...]"	5	5
Negative impression	"[...] Overall, the course was disproportionally long, lacking practical exercises such as conflict situations, presentations, giving and receiving feedback."	1	6
Stmt. Sum		95	187
No response		0	3

GRADUATES' TAKEAWAYS FOR WORKING LIFE (RQ4I), FOR PRIVATE LIFE (RQ4II), AND INFLUENCES ON PERSON (RQ5)

RQ5i: Did you take something from the course that was later valuable for you in your working life?
RQ5ii: Did you [...] valuable for you in your personal life?
RQ6: [...] anything that influenced you (for example, it had an impact on your thinking, attitudes, or behavior)? If so, please describe it.

Subcategory › sub-subcategory	Statement Count RQ5i	 RQ5ii	 RQ6
All Communication sk.	45	40	13
› communication skills	18	14	7
› active listening skills	14	23	6
› presentation skills	13	3	0
Other skills	17	8	4
Specific effect, insight, and learning	17	11	14
People-related aspects	14	9	14
Specific knowledge/ theory	9	4	3
Perceived unspecific impact of course	7	9	12
Self-competences	6	9	5
Course related	5	3	7
Specific activity	4	1	0
Relationships with others	4	7	8
Others	3	8	8
Stmt. Sum	131	109	88
No response	4	6	10

GRADUATES' TAKEAWAYS FOR WORKING LIFE (RQ4I), FOR PRIVATE LIFE (RQ4II),AND INFLUENCES ON PERSON (RQ5) – 1/2

RQ5i: Did you take something from the course that was later valuable for you in your working life?
RQ5ii: Did you [...] valuable for you in your personal life?
RQ6: [...] anything that influenced you (for example, it had an impact on your thinking, attitudes, or behavior)? If so, please describe it.

Subcategory ◆ sub-subcategory	Prototypical example	Statement Count RQ5i	 RQ5ii	 RQ6
All Communication sk.		45	40	13
◆ communication skills	"An ability to communicate the tasks more clearly while having the other receiving side in mind."	18	14	7
◆ active listening skills	"The idea of being just open to other people and letting themselves to figure out what is their problem is powerful. I try to listen and ask more at my work and also at home."	14	23	6
◆ presentation skills	"I learnt how to present in front of people and how to deal with stress."	13	3	0
Other skills	"I use some of the time management/"Getting things done" rules in my "working life,""	17	8	4
Specific effect, insight, and learning	"I also breathe deeper when I dislike an opinion of a co-worker very much in order to calm myself so it is easier to dismiss the matter and not get into an argument."	17	11	14
People-related aspects	"Yes, in my opinion, it is important to maintain warm relationships with colleagues. [...]"	14	9	14
Specific knowledge/ theory	"Team roles by Belbin"	9	4	3
Perceived unspecific impact of course	"Nothing in particular comes to mind, but it was a nice practice - as a team leader I use communication skills every day."	7	9	12
...	...	...	...	...
Stmt. Sum		131	109	88
No response		4	6	10

GRADUATES' TAKEAWAYS FOR WORKING LIFE (RQ4I), FOR PRIVATE LIFE (RQ4II), AND INFLUENCES ON PERSON (RQ5) – 2/2

RQ5i: Did you take something from the course that was later valuable for you in your working life?
RQ5ii: Did you [...] valuable for you in your personal life?
RQ6: [...] anything that influenced you (for example, it had an impact on your thinking, attitudes, or behavior)? If so, please describe it.

Subcategory › sub-subcategory	Prototypical example	Statement Count RQ5i	 RQ5ii	 RQ6
...	...	...	...	...
Self-competences	"It taught me self-confidence in preparing presentations and expressions."	6	9	5
Course related	"The course was not purely about acquiring new skills, but also about making the existing ones sharper."	5	3	7
Specific activity	"Practicing the visit at company boss wanting pay raise was a valuable experience, getting great feedback and tips. Trying the teamwork as a CERT unit during cyber-attack was very exciting as well."	4	1	0
Relationships with others	"First listen and then react non-judgmentally/neutrally."	4	7	8
Others	"No"	3	8	8
Stmt. Sum		131	109	88
No response		4	6	10

QUALITATIVE CONTENT ANALYSIS DISCUSSION

Limitations

- Small response rate (about 10%)
- No differentiation regarding instructor, time passed between graduation from course and responding to the survey

Contribution of QCA

- Easy to follow and sufficiently flexible to adapt
- Provided a structured, well-organised and intersubjective impression of the students’ view
- Illuminated the essence, highlights and some details that otherwise would stay concealed
- Valuable learning for the instructor!

IMPACT & FURTHER RESEARCH

Impact on higher education practice and research in the field of professional skills, student-centered courses, and qualitative research

Course has exceptionally low drop-out rates

...

For the vast majority of students the course provided sustainable learning ranging from improved listening, presentation and interaction skills to …

Long-tern view: Further research needs to investigate criteria and hindrances regarding the positive effects .

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THANK YOU FOR YOUR ATTENTION!

Each perspective is welcome!

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