

Online Training – Seminar of CHAIN project on Reflective Thinking and Self-learning methods

Monday 13.01.2025 10:00 CET

- Reflective thinking theoretical background
- 2. Workshop and tips related with reflective thinking

Monday 20.01.2025 10:00 CET

- Self-learning methods theoretical background
- Workshop and tips related with self-learning methods

Google MEET link for the online meetings: meet.google.com/ugq-sxiw-gha

Trainers:

UPWR, Poland (Wroclaw University of Environmental and Life Sciences)

Please check before the CET time!





















CHAIN Project
Cooperation for Holistic Agriculture Innovation Nests in Sub-Saharan Africa Erasmus+ CBHE Project CHAIN = 101082963



Online Training 2-days Session - CHAIN project Seminar topic: "Reflective Thinking and Self-learning methods"

Start at:

10:00 (Poland, Germany, Nigeria)

09:00 (Togo)

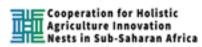
11:00 (Romania)

12:00 (Kenya)

Link to the access on Google MEET platform:

meet.google.com/ugq-sxiw-gha





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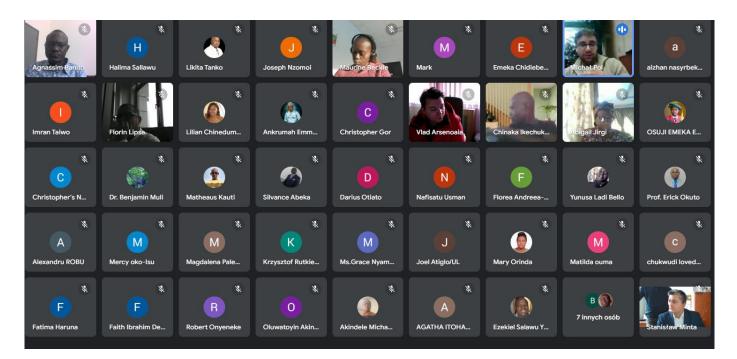


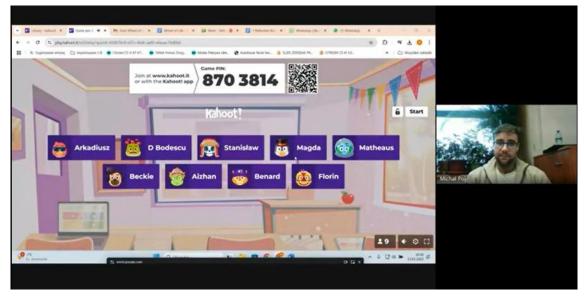


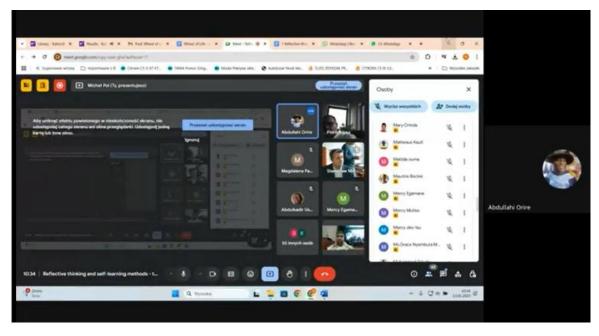


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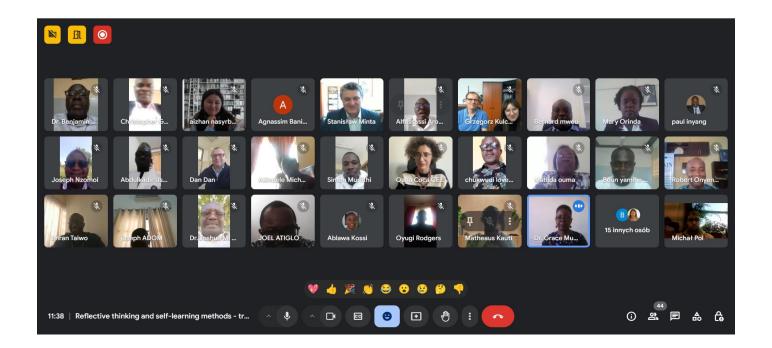


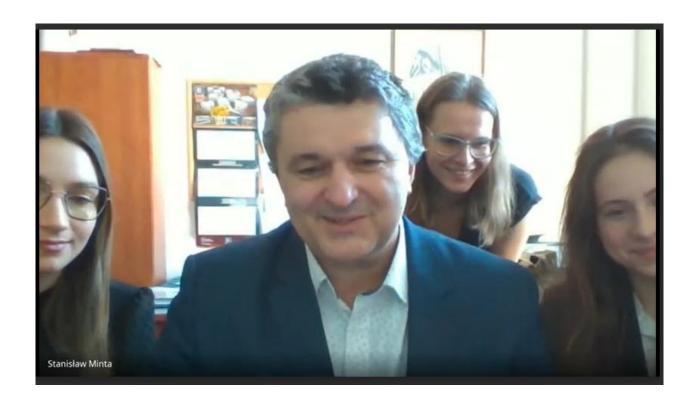


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Online Training Session - CHAIN project Topic: "Reflective Thinking", January, 13th, 2025

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Agenda of the training:

- 1. Reflective Thinking theoretical background
- 2. Development Circle a workshop on reflecting on our capabilities and limitations
- 3. The GOLD method as a tool for developing reflective thinking Enterpreunership test
- 4. Question & Answer and summary of the training

Reflective Thinking - theoretical background

Definition of reflective thinking

Reflective thinking is the process of analyzing and evaluating our thoughts, experiences, and actions in order to gain deeper context and perspectives, which is supposed to lead to better decisions in the future.

The result of the reflective thinking process should be better outcomes based on previously acquired knowledge and experience.

Reflective thinking is also known as metacognition or critical reflection.

Reflection is considering why what you did or plan to do matters, whether it can be done better than in the past, or what solution seems best in a given situation or context.



Reflective thinking helps us understand something better by taking into account emotions, feelings, knowledge, and previous experiences, and at the same time is an attitude of openness to new solutions based on the obtained facts and thoughts.

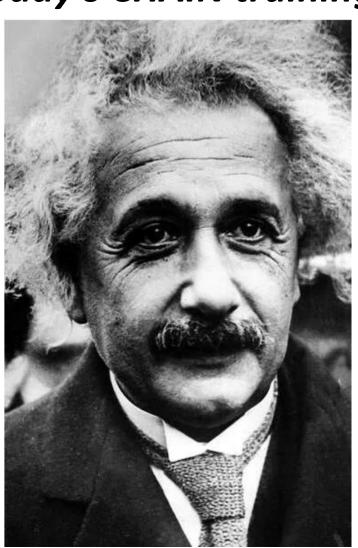
The essence of reflective thinking

Reflective thinking is the ability to think about WHAT we do and HOW we do it.



It requires moving away from established solutions and using mental effort to analyze the state and search for new, better solutions.

Who is in this photo and why from the perspective of today's CHAIN training?



The place of reflective thinking in educational structures

Types of education structures

Traditional structured education

(orientation towards the unthinking acceptance of knowledge - knowledge is considered the only and true one)

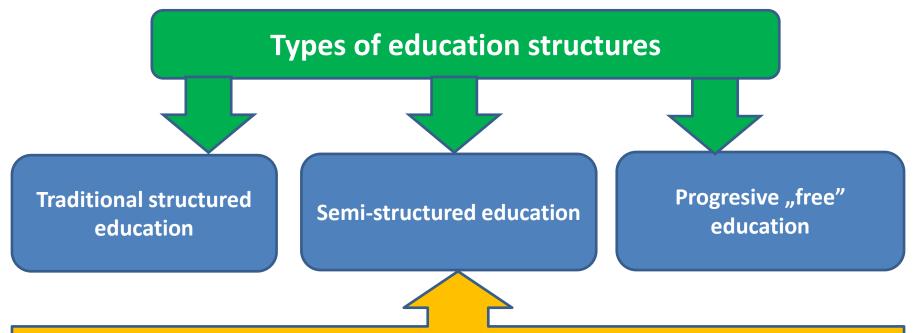
Semi-structured education

(educational experiences are planned to some extent, educational practice consists in organizing cognitive processes in specific structures)

Progresive "free" education

(education is "free", practically oriented, is not limited by any structures and is not planned)

The place of reflective thinking in educational structures



Reflective thinking is most suited to semi-structured education. It gives students a lot of freedom and allows them to use their natural path of development. Students make progress thanks to their activity and experience.

However, the teacher is very important because he organizes these didactic processes, i.e. reflection is a planned form of education.

Reflective Thinking

benefits for students and teachers

Reflective Thinking as a Tool to Support the Teaching Process for Students and Teachers

Reflective thinking helps students identify their strengths and weaknesses, define learning goals, and consider alternatives.

For teachers, reflective thinking can help improve teaching practice and make teaching decisions based on data and previous experiences.

Through reflective thinking, students and teachers become active players in their learning journey, constantly adapting and developing based on their reflections.

Benefits of using reflective thinking for students:

- 1. Increases awareness through better understanding of yourself and your environment.
- 2. Prepares you to solve problems and make decisions more effectively.
- 3. Develops creativity and creative thinking.
- 4. Allows you to better understand the material and assimilate it for a longer period of time.
- 5. Develops learning skills and strategies.
- 6. Facilitates dealing with difficult emotions and situations.
- 7. Increases self-confidence.
- 8. Allows you to achieve a higher level of social maturity.
- 9. Allows you to get to know your strengths and areas worth working on.
- 10. Develops the ability to evaluate your own progress.

Development of various skills thanks to use a reflective thinking

- Taking notes
- Presentation
- Acquiring knowledge
- Paraphrasing and summarizing source texts
- understanding texts (e.g. a scientific article from the FVC area)
- Writing papers (semester, diploma)
- Finding sources
- Using artificial intelligence

- participating in a discussion/debate
- working in a team on a group project
- communication effectiveness
- giving and receiving feedback
- expressing one's own needs
- showing empathy
- dealing with criticism

Models of Reflective Thinking - examples

In order to develop reflective thinking in classes with students, it is worth getting to know and using different models of this method.

Examples of reflective thinking models:

- 1. Schön model
- 2. Borton model
- 3. Gibbs model



Donald Schön Model

According to D. Schön, reflective learing results from:

- 1) reflection in action
- 2) reflection on action

Reflection in action is a process that includes a given activity and at the same moment reflecting on what we are doing.

Student learning results from conscious analysis of one's own activity and the ability to make changes to it during the activity.

Student thinks critically, tries out different approaches, and experiments during a given activity. Reflection in action is about learning from one's own actions and experience. It is a conscious process, but it does not have to be verbalized.

According to Donald Schön, reflective learing results from:

- 1) reflection in action
- 2) reflection on action

Reflection on action is an analysis of what happened from a certain time perspective. Learning comes from deep, intellectual reflection, which is not accompanied by time pressure.

Conscious analysis of the action often requires verbalization through discussing what happened with the activity partner or mentor. Analysis of the experience can also take place in written form.

When reflecting on one's own practice, new cognitive values are created. The effect of reflection on action is new knowledge.

Borton Model

The Borton Model consists of 3 stages, which are described by questions:

- 1) WHAT?
- 2) SO WHAT?
- 3) NOW WHAT?



Borton Model

1. WHAT?

 This is a detailed description of the experience being analyzed that involves asking questions beginning with "what?", for example: What happened? What did I do? What was I trying to achieve? What was good or bad about this experience?

2. SO WHAT? This stage includes analysis and evaluation of what happened. The student makes in-depth inferences about the event and reflects on what is associated with this experience. Examples of guiding questions: What is the most important thing about what happened? What can I learn more from the experience?

3. NOW WHAT?

• In the final stage, we consider alternative courses of action and choose what to do next. We ask ourselves: what can I do now?, what do I need to do now?, what could I do later?, what might be the consequences of these events?

Graham Gibbs Model

According to Gibbs, reflection is a key category of the learning process and occurs at each of the six stages of the model he developed.

The additional value of this concept is the emphasis on the role of emotions in learning. G. Gibbs' model is cyclical and is divided into six key areas.

Graham Gibbs Model – 6 stages

6. ACTION PLAN

How would you behave in the same situation in the future?

1. EVENT DESCRIPTION

What happend?

2. FEELINGS

What did you think and feel?

5. CONCLUSION

What more/better could have been done?

3. EVALUATION

What was good and what was wrong?

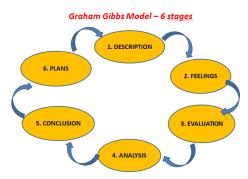
4. ANALYSIS

What was the significance of this situation?

Graham Gibbs Model - 1st stage "EVENT DESCRIPTION"

The **event description** is a detailed description of the facts that make up the event. The student reports on the activity, its participants and witnesses, the context and the result.

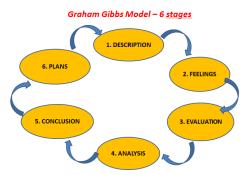
He/she considers: where was he/she?, who else was there?, what were they doing?, what were others doing?, what was the context of the event?, what was the involvement?, what was the result of the activity?



Graham Gibbs Model – 2nd stage "FEELINGS"

In the second stage "Feelings", the student should consider feelings, thoughts and their own attitude before and during the event.

Questions for this stage may be: try to remember what you thought and felt at the beginning, how others influenced what you thought and felt?, what do you think about this event now?



Graham Gibbs Model – 3rd stage "EVALUATION"

In the "EVALUATION" stage, the student makes an estimate, which consists of assessing the causes of the event and their possible consequences.

A good solution here is to point out the good and bad sides of the analysed experience. Evaluation is an attempt to assess and explain what happened.

At this stage, the student wonders what went well and what went wrong in general, and what he/she did right or wrong?

Graham Gibbs Model – 4th stage "ANALYSIS"

ANALYSIS is a review of the event, which involves thinking about the meaning of the situation being discussed. The auxiliary questions at this stage are: what does this event mean to me and what is my role in it?

Analysis can be done by examining each element of the event in detail. We explain separately: what went well?, what did I do well?, what did others do well?, what went differently than it should have?, how did others influence this element?

1. DESCRIPTION

6. PLANS

5. CONCLUSION

Graham Gibbs Model – 5th stage "CONCLUSION"

CONCLUSION is an in-depth assessment of what happened. The student bases his/her criticism on what he/she knows and on external information about the discussed situation. The student formulates conclusions: what else could have been done? what should I not have done?

At this stage, it is important to remember the purpose of reflection, which is to learn from experience. Detailed analysis and "honest research" are the conditions for a valuable learning opportunity.

Graham Gibbs Model – 6th stage "ACTION PLAN"

ACTION PLAN consists of thinking about how to behave in the future if a similar problem or situation occurs to the one that occurred in the past.

Reflection is expressed by asking: if I would to find myself in this situation again, how would I act, knowing what I know now?

In other words, at this stage the student looks into the future in case a similar problem/ situation/ project/ event is encountered again.

1. DESCRIPTION

3. EVALUATION

6. PLANS

5. CONCLUSION

Tips, tools and examples for implementing reflective thinking in a educational work with students

Tips for introducing reflective thinking into the teaching process:

- 1. Start with short exercises and simple questions.
- 2. Present the benefits and explain in what situations the ability to think reflectively is useful or necessary.
- 3. Get students used to the reflection process by regularly using elements of this method in your teaching.



Tips for introducing reflective thinking into the teaching process:

- 4. Do not evaluate the conclusions and the way students speak. Prepare a space and atmosphere that gives a safety and confidence for your students and will facilitate opening up to discussions and student involvement.
- 5. Let's focus on **LISTENING** to the answers and opinions and critical thinking of our students.
- 6. Let the students feel that you are interested in what they have to say and you are curious about their opinions (this also applies, or maybe especially, to those students who do not engage in the teaching process).

Tools of developing reflective thinking

Making notes from the lectures

Writing a summary of the text provided to students, along with their expression of the feelings and impressions they had while reading the text.

1-minute paper

Using didactic cards and discussing what they present (cards related to our didactic course or evoking associations with the topic we want to cover in class (e.g. water management in agriculture)

Group discussion – after completing a stage of some work or project

Reflective writing

REFLECTIVE WRITING - an example of the application of reflective thinking when writing a student's diploma thesis:



What stages did the process of writing a bachelor's thesis consist of? How did the writing process proceed? What did you feel while writing your bachelor thesis?



What was good? What didn't you manage to do? What mistakes did you make? What could have been done differently? What did this experience teach you?



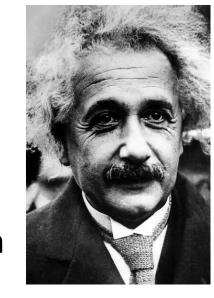
What could have been done better when writing a master's thesis?

What actions do you want to take to achieve the goal of a good quality master's thesis?

Some reflection for the summary...

The definition of insanity is:
doing the same thing over and over
and expecting a different result.

Albert Einstein



So how do we avoid insanity and doing things in a smart way?

The solution is to use *reflective thinking* and make decisions that will bring us better results than the decisions we made in the past.

At the end... for the reflection about reflective thinking in students teaching and learning...

https://www.youtube.com/watch?v=PcefQdySMb0

Video (duration time 3:58) about why should we teach students to write and why should we teach reflective and critical thinking?...

Or not????

We as the teachers and supervisors have to thinking in reflective way and answer the question!

References and useful video materials:

- 1. Borton T., 1970: Reach, Teach and Touch. McGraw Hill, London.
- 2. Gibbs G., 1988: Learning by doing: A guide to teaching and learning methods. Oxford Further Education Unit, Oxford.
- 3. Perkowska-Klejman A., 2013: Modele refleksyjnego uczenia się (A models of reflective learning). Journal "Teraźniejszość Człowiek Edukacja", Nr 1(61), pp. 75-90.
- 4. Perkowska-Klejman A., 2024: Does Tutoring Develop Reflexivity? Multidisciplinary Journal of School Education, 13(1(25), 131–151. https://doi.org/10.35765/mjse.2024.1325.07
- 5. Schön D.A., 1987: Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Profession. Jossey-Bass Publishers, Oxford.
- 6. Video "Gibbs Reflective Model with an Example Simplest Explanation Ever".
- Available online: https://www.youtube.com/watch?v=f wprGcziso
- 7. Video "Jak uczyć myślenia krytycznego? (How to teach a critical thinking)".
- Available online: https://www.youtube.com/watch?v=PcefQdySMb0
- 8. Video "Reflective Teaching (Explained for Beginners in 3 Minutes". Available online: https://www.youtube.com/watch?v=f wprGcziso
- 9. Video "Understanding Reflective Practice". Available online: https://www.youtube.com/watch?v=iBmtH0Qx0YU&t=40s



Online Training Session - CHAIN project Topic: "Reflective Thinking" January, 13th, 2025

Thank you for your attention and commitment!







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Online Training Session - CHAIN project Topic: "Reflective Thinking", January, 13th, 2025

<u>Trainers (team of UPWR – Poland):</u>

Dr Stanislaw MINTA, Department of Applied Economics

Prof. Arkadiusz DYJAKON, Energy, Environment and Society Centre

Dr Natalia SZULC, Department of Phisics and Biophisics

Prof. Grzegorz KULCZYCKI, Institute of Soil Science, Plant Nutrition and Environmental Protection

Dr Magdalena PALECZNA-SAREŃCZA, Department of Applied Economics

M.Sc. Michał Pol, UPWR PhD student

Martyna ŁAWNICZAK, Student Scientific Society of Market Analysis

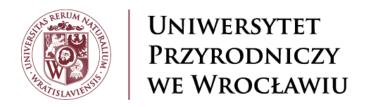
Paulina WALACIK, Student Scientific Society of Market Analysis





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Project CHAIN
Cooperation for Holistic Agriculture Innovation Nests in Sub-Saharan Africa
13 January 2025, Wroclaw, Poland

Arkadiusz DYJAKON Stanisław MINTA

On-line workshop



DEVELOPMENT CIRCLE - method

The development circle allows you to illustrate the level of satisfaction in the areas you are interested in. With this tool, you can work with the values that are currently important for you.

The exercise consists in the designating the key spheres (categories), and then putting them on the circle (usually about 10-12 categories).

There can be many ideas for categories – depending on your needs.

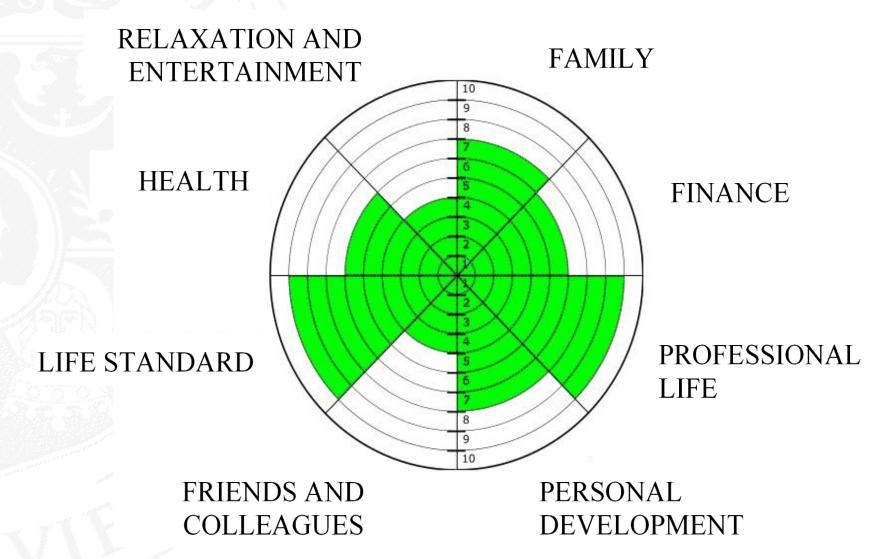
DEVELOPMENT CIRCLE - method

Next, you need to evaluate the designated categories (using, for example, a score from 1 to 10, in which 1 is an unsatisfactory level and 10 is a fully satisfactory level), so that an analysis can be carried out.

This is done by answering open questions.

The main goal is to evaluate the present situation.

DEVELOPMENT CIRCLE – EXAMPLE



DEVELOPMENT CIRCLE – HELPING QUESTIONS

- ✓ What do you feel and think about your life when you look at a drawing?
- ✓ Which values arouse the greatest emotions and why?
- ✓ Did anything surprise you?
- ✓ Which areas require the most attention?
- ✓ What would a score of 10 give you for each value?
- ✓ What happens if you don't make any changes?
- ✓ In which areas can you make the fastest changes?
- ✓ Which of these categories would you like to improve the most?
- ✓ What prevents you from making a change?
- ✓ Who and how could help you make the change?
- ✓ Which category can you start with?
- ✓ When will you start acting?

DEVELOPMENT CIRCLE – EXERCISE

Please, consider the activity/topic/problem referring to the FOOD VALUE CHAIN.

Then:

- * define the categories (minimum 8) that in your opinion are crucial for this issue.
- **Evaluate the categories from 1 to 10, respectively.**
- **Elaborate some supporting questions that facilitate the analysis of the obtained results.**
- Describe the conclusions and the final outcomes.

The GOLD model is a conversation focused on goals, results, learning and conclusions. It refers to the issue: what will I do differently?.

It is an example of obtaining feedback and a tool to support the development of the person (student, lecturer, co-worker, employee etc.).

It focuses on learning based on personal experiences. It is used when the actions of a given person have caused negative consequences or when the level of performance of the assigned task does not meet expectations (i.e. of the supervisor).



What did you achieve?



Learn

What did you learn?

Goal

What was your goal?



What will you do differently next time?

Issue	Questions to be answered
GOAL	What was your goal? What did you intend to achieve? What were you aiming for? What was supposed to be the result of your action?
	What was the outcome? What was the actual result? What have you achieved? What went well? What else can you work on?

Issue	Questions to be answered
LEARN	What did you learn?
	What conclusions can you draw from this?
	What did you take out from this?
	What other opportunities do you see now?
DIFFERENTLY	Next time what will you do differently?
	What will you do differently next time?
	What will you do more or less?
	What will you take into account when such a
	situation arises again?
	Where will you start?
	Where will you end up?

GOLD Method

Finally, on the basis of all the thoughts, we prepare a real action plan that we will consistently put into practice.

It should be remembered that if you want to learn something from your own mistakes, you need to meet one basic condition – be aware that you have made it and not blame the failure on everything and everyone around you.

You should think through each mistake well and try to work through it, break it down into factors, analyze it, know exactly what it resulted from.



Online Training Session - CHAIN project Topic: "Self-learning methods"

Start at:

10:00 (Poland, Germany, Nigeria)

09:00 (Togo)

11:00 (Romania)

12:00 (Kenya)

Link to the access on Google MEET platform:

meet.google.com/ugq-sxiw-gha





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Online Training Session - CHAIN project, Topic: "Self-learning methods"
January, 20th, 2025

Trainers (team of UPWR – Poland):

Prof. Grzegorz KULCZYCKI, Institute of Soil Science, Plant Nutrition and Environmental Protection

Dr Magdalena PALECZNA-SAREŃCZA, Department of Applied Economics Dr Natalia SZULC, Department of Physics and Biophysics Martyna ŁAWNICZAK, Student Scientific Society of Market Analysis

Paulina WALACIK, Student Scientific Society of Market Analysis

M.Sc. Michał Pol, UPWR PhD student

Prof. Arkadiusz DYJAKON, Energy, Environment and Society Center **Dr Stanisław MINTA,** Department of Applied Economics





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Agenda of the training:

- 1. Organizational issues of the training
- Self-learning methods theoretical background
- Workshop of academic staff self-learning (using QR codes to create tests useful in working with Food Value Chain students)
- 4. Training evaluation completing the questionnaire for the CHAIN project
- 5. Question & Answer Session and summary of the training



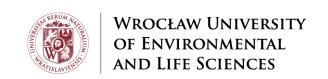
Self-learning methods

Magdalena Paleczna-Sareńcza, Grzegorz Kulczycki University of Environmental and Life Sciences





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Introduction to self-learning methods

 Self-learning has a historically long and rich history that dates back to antiquity



Source: Lookandlearn

 From ancient scrolls to modern printed books, access to literature has been a fundamental part of self-learning

 The development of public libraries in the 19th century enabled people to access literature independently





Introduction to self-learning methods

 A form of early distance learning was correspondence courses, which pioneered modern forms of education

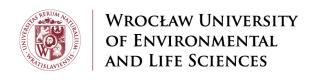


Source: Education Plan

- Through the development of the internet and digital technologies, self-learning has reached a new level
- It is now possible to use countless educational resources such as e-books, tutorials, discussion forums or online courses
- Self-learning is now more effective, interactive and accessible on a larger scale than ever before



Source: Online courses



Definition of self-learning

 Self-learning is a process of learning where a person acquires new knowledge, skills or competences without the formal assistance of a teacher or instructor



Source: ChatGPT

 It is a form of education in which the person directs his or her own learning, choosing sources, materials, techniques and the pace at which information is acquired

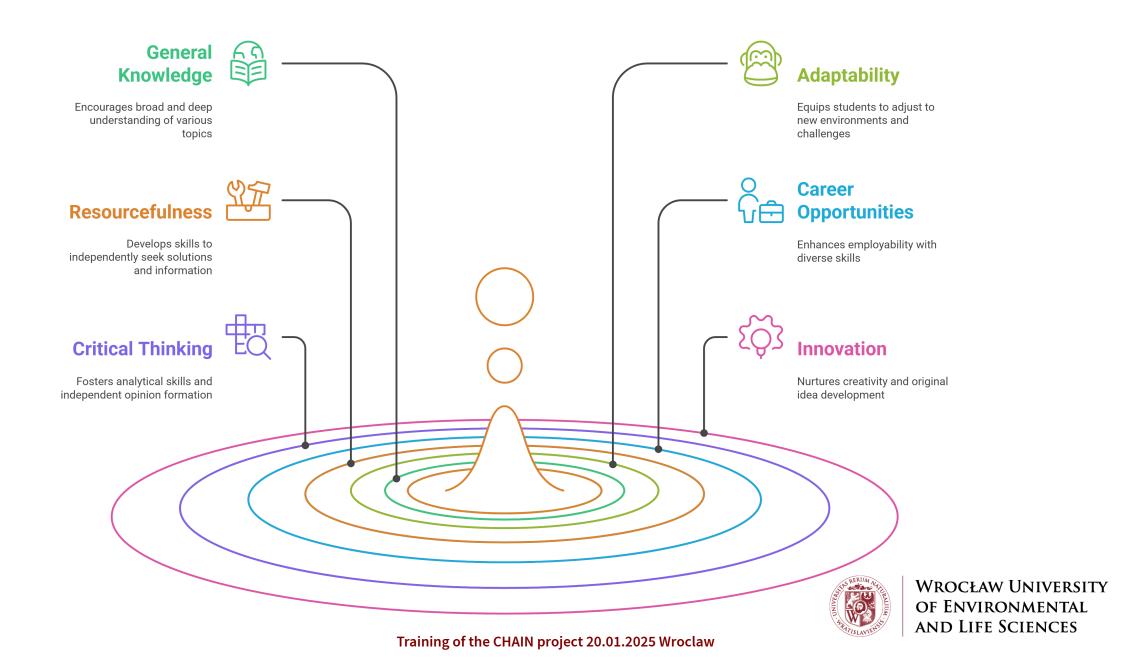


Source: ChatGPT

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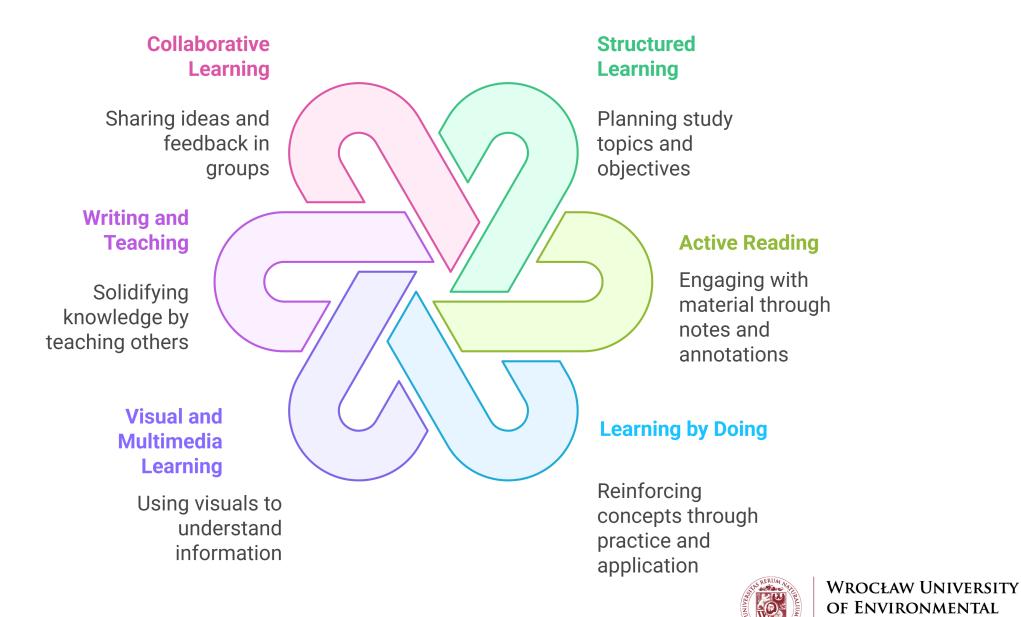
Another term for this process might be 'learning on one's own', without
the need for teacher supervision.

Benefits of self-directed learning

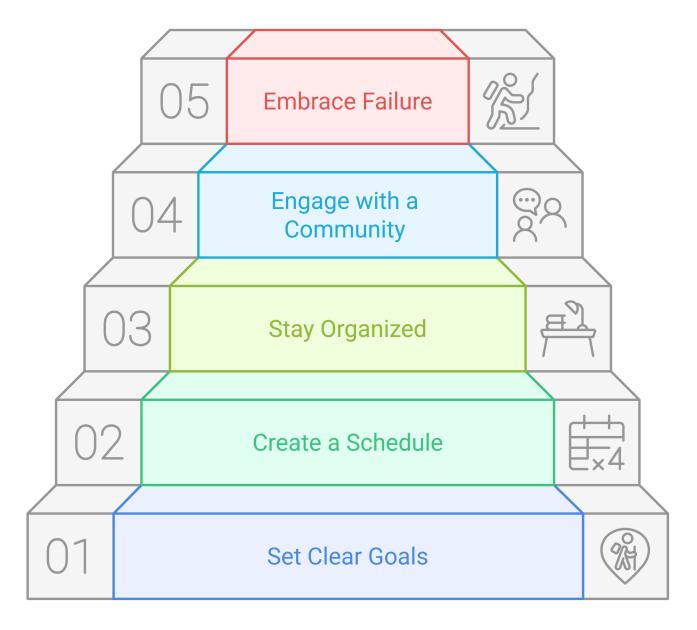


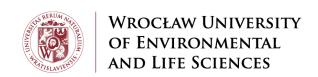
AND LIFE SCIENCES

Self-study methods

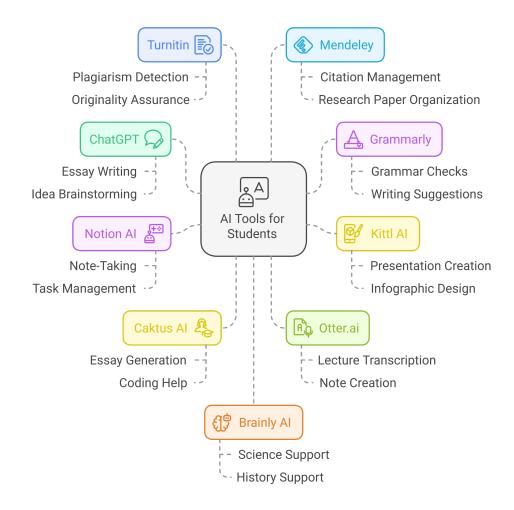


Strategies for effective self-education

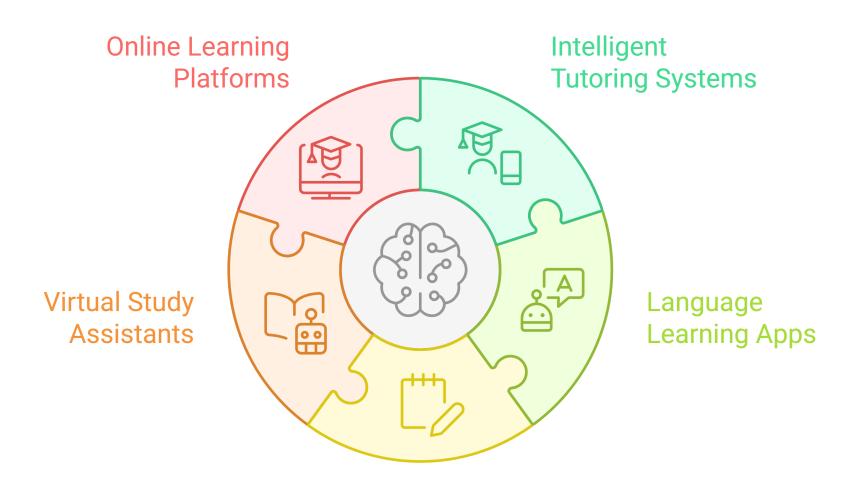




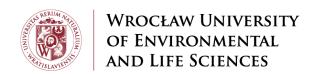
Tools for self-study with AI



Enhancing self-lerning with AI



Study Aids and Note-Taking Tools



OF ENVIRONMENTAL AND LIFE SCIENCES

The most popular e-learning platforms



Cooperates with universities all over the world, offering online courses



Offers a wide range of academic courses in various disciplines



Proposal of courses, both academic and practical at affordable prices



Offers free educational courses in maths, science or history

The most popular e-learning platforms



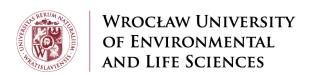
Offers courses focused on developing professional skills such as programming, project management or graphic design.



Works with universities and educational institutions to offer courses in a variety of disciplines



Offers courses in data, programming and data analysis



Learning to make text visualisations using AI

• We will use Napkin.ai for this access to the beata version is free of charge

We will now visualise our project website CHAIN



We will use a simple prompt for this:

Learn from https://project-chain.eu/ and then make a visualisation characterising the purpose of the project

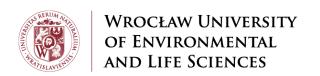


Image creation with ChatGPT

We will use ChatGPT



We will now create an image to characterise our CHAIN project

 We will use the text from the project page of the Aims & Objectives and use prompt: Create an image to match the project goals

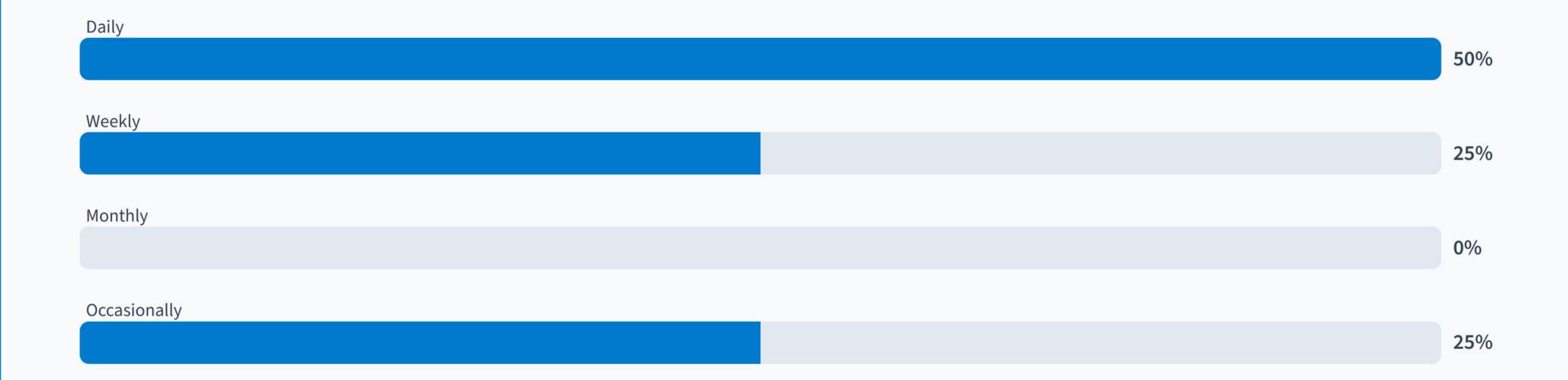
Survey on self-learning methods



What motivates you to pursue self-learning?

Career advancement	14%
Personal interest	14%
Skill development	71%
Academic needs	0%
Other	0%

How often do you engage in self-learning?



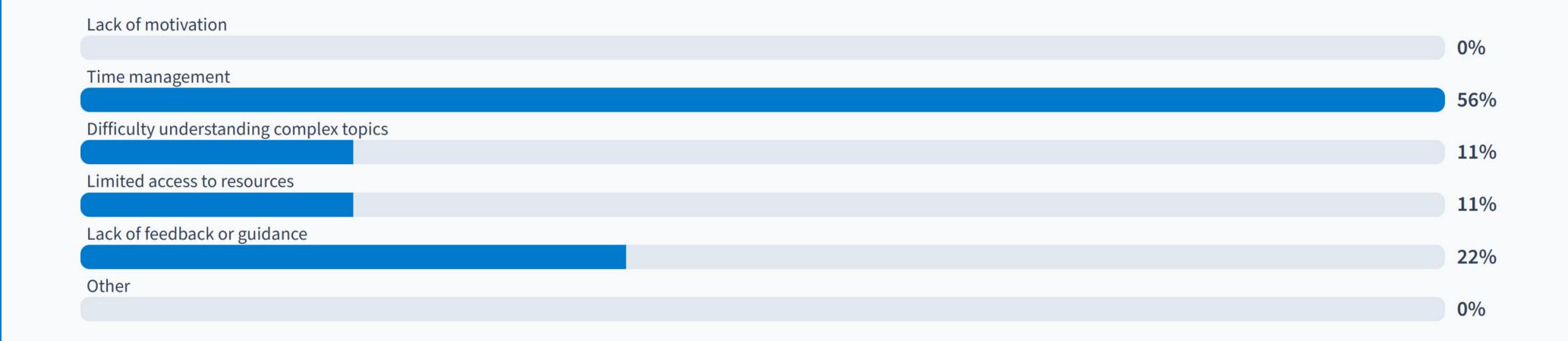
Which self-learning methods do you use most frequently?

29%
43%
0%
0%
0%
14%
14%

What type of content format do you prefer for self-learning?

Video tutorials	67 %
Text-based articles or e-books	11 %
Interactive simulations or games	22%
Audio content (e.g., podcasts)	00/-
Other	0%
	0%

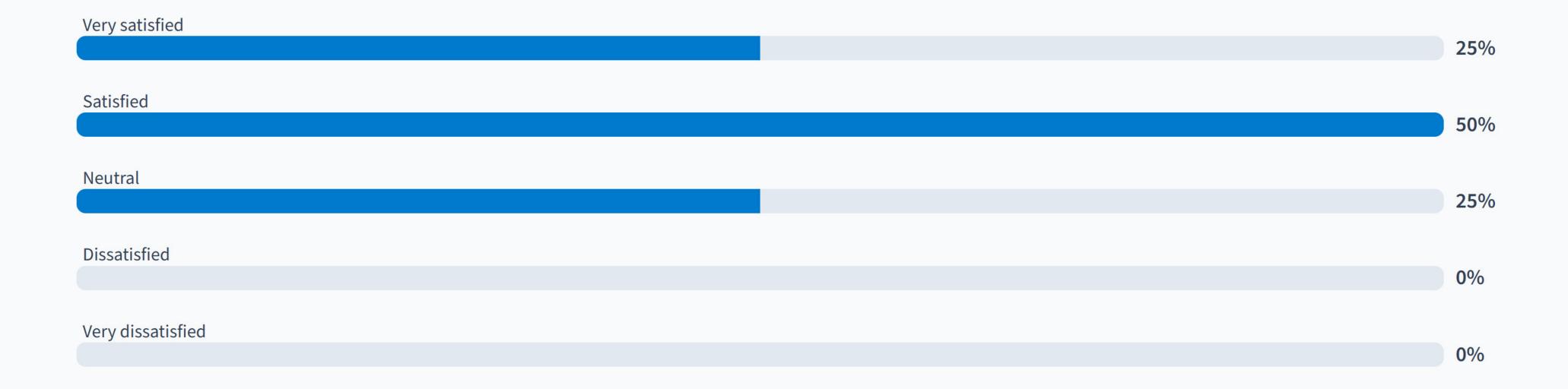
What are the biggest challenges you face when self-learning?



How do you overcome challenges in self-learning?



How satisfied are you with your self-learning experiences?



Thank you for your attention





Source: ChatGPT



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Erasmus+ CBHE Project CHAIN - 101082963 Cooperation for Holistic Agriculture Innovation Nests in Sub-Saharan Africa

Project CHAIN

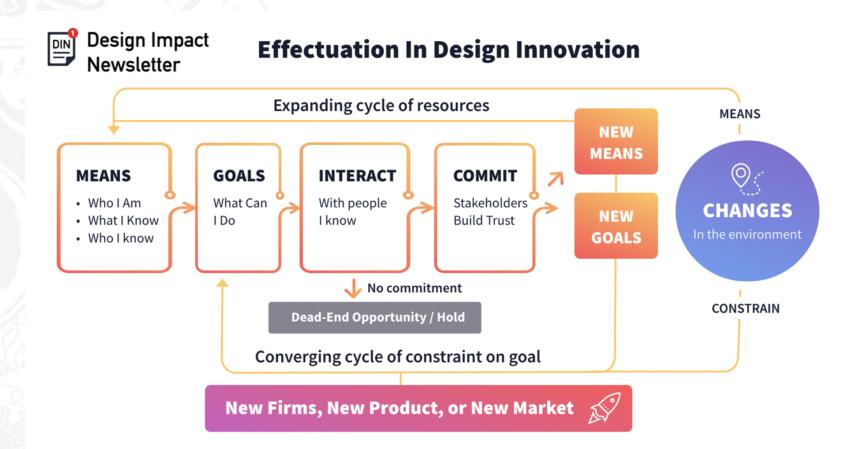
Cooperation for Holistic Agriculture Innovation Nests in Sub-Saharan Africa Online workshops (Self – learning methods) 20 January 2025

Martyna ŁAWNICZAK Natalia SZULC Paulina WALACIK

Online workshops – self-learning methods.

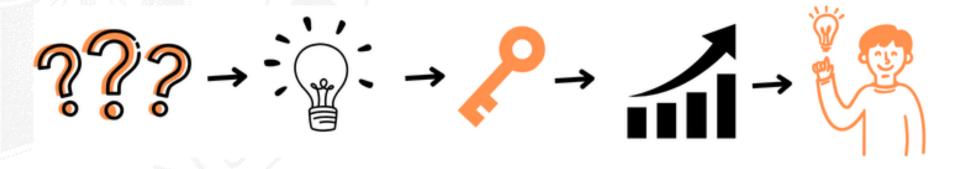


Effectuation theory



QUIZ - ARE YOU ENTREPRENEURIAL?

The **goal** of this quiz is to support self-assessment and development of entrepreneurial traits such as decision-making, tackling challenges, and time management. Through questions based on everyday situations, participants can gain insight into their strengths and areas for improvement, serving as inspiration for further growth in the spirit of self-learning.



QUIZ - ARE YOU ENTREPRENEURIAL?

https://www.surveymonkey.com/r/2NDW6K6



DISCOVER YOUR TYPE?



CAUTIOUS PRAGMATIST



Your approach to life is very cautious and you focus on avoiding risk. You prefer tried and tested solutions, which gives you stability but can limit potential opportunities. To develop your entrepreneurial traits, try to open yourself up to new experiences and gradually take on smaller challenges.





GROWING ENTREPRENEUR



You have some entrepreneurial traits, such as an openness to learning and a willingness to act, but you are still working on consistency and self-confidence. Try to manage risk better and take initiatives more boldly. You are well on your way to achieving bigger goals!



LEADER AND INNOVATOR



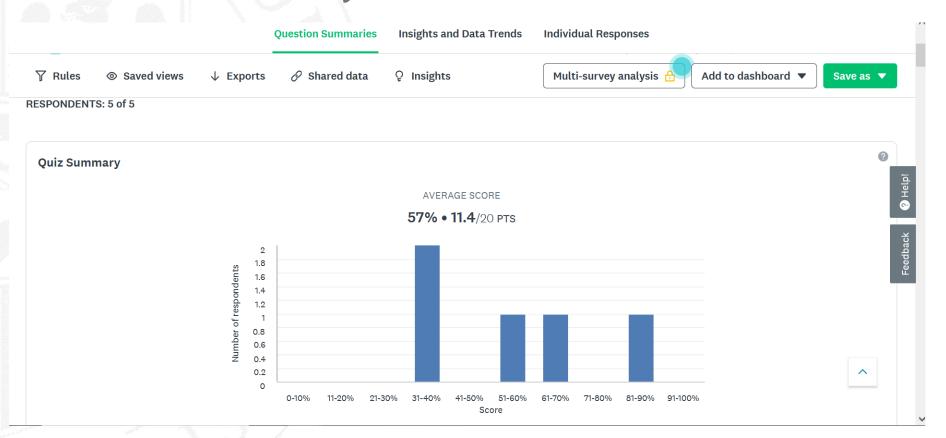
Congratulations! You have clear entrepreneurial traits. You are dynamic, creative, and effectively deal with challenges. You manage your time well, take informed risks, and adapt easily to change. You have all the predispositions to be a successful leader and innovator!



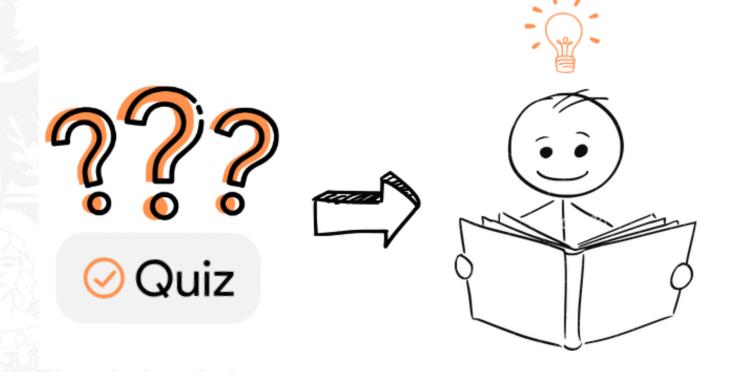


QUIZ - ARE YOU ENTREPRENEURIAL?

➤ Quiz summary



SELF-LEARNING



MODERN FOOD PROCESSING TECHNOLOGIES



Minimal Processing Technologies: Methods like high-pressure pasteurization (HPP) or UV treatment help preserve nutritional value and extend product shelf life.



Fermentation and Biotechnology: Advanced fermentation processes (e.g., using probiotics) improve the nutritional value of food, increase its durability, and reduce waste.



Drying and Freeze-Drying: These methods maintain high product quality, minimize nutrient loss, and reduce weight and volume, lowering transportation costs.

SUSTAINABLE INNOVATIONS IN PACKAGING PRODUCTION



Biodegradable and Compostable Materials: Packaging made from renewable resources like PLA (polylactic acid) or plant-based fibers.



Edible Packaging: Packaging made from gelatin, seaweed, or starch that reduces plastic waste.



Smart Packaging: Freshness monitoring systems, such as temperature indicators or color changes, help consumers manage food better.

REDUCING FOOD WASTE IN HOUSEHOLDS



Food Storage: Educating people on proper storage (e.g., different conditions for fruits and vegetables, using vacuum containers).



Freezing Surpluses: Freezing products before their expiration date to extend shelf life.



Cooking with Leftovers: Promoting "zero waste cooking" practices – e.g., soups from vegetable peels or bread made from leftover mashed potatoes.

REDUCING FOOD WASTE IN HOUSEHOLDS



Shopping Planning: Making shopping lists and meal plans to avoid overbuying.



Mobile Apps: Apps for managing food inventories that remind users of upcoming expiration dates.



Labels with QR Codes: Allowing users to check food freshness with an app.

WHAT IS KAHOOT?

A Powerful Tool for Modern Education

Interactive Platform: Kahoot transforms traditional learning into a dynamic and engaging experience.

Fun and Accessible: Students participate via quizzes, polls, and

challenges on any device.

Widely Used: Over 1 billion players annually in schools, universities, and businesses.



HOW KAHOOT ENHANCES LEARNING?



Fast Knowledge Retention with Kahoot

Gamified Learning

Spaced Repetition

Instant Feedback

HOW KAHOOT ENHANCES LEARNING?

Engages students through competition and rewards.

Promotes active participation.

Reinforces knowledge by revisiting key concepts.

Improves long-term memory.

Students see **results** immediately, enabling self-correction.

Teachers gain insights into **performance** trends.



WHY CHOOSE KAHOOT?

Transform Learning into an Adventure

Engagement: Keeps students motivated and focused.

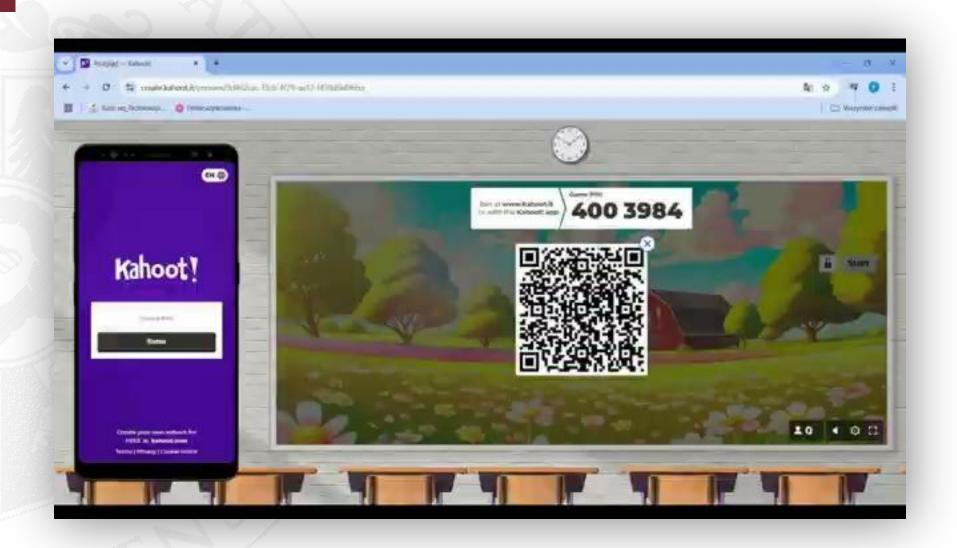
Flexibility: Adaptable to any subject or age group.

Collaboration: Encourages teamwork and peer learning.

Proven Results: Boosts academic performance and confidence.



https://create.kahoot.it/details/9d462cac-f3c6-4f79-aa12-f438d6af96ba





















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Erasmus+ CBHE Project CHAIN - 101082963 Cooperation for Holistic Agriculture Innovation Nests in Sub-Saharan Africa

Project CHAIN

Cooperation for Holistic Agriculture Innovation Nests in Sub-Saharan Africa Online workshops (Self – learning methods) 20 January 2025

Martyna ŁAWNICZAK Natalia SZULC Paulina WALACIK

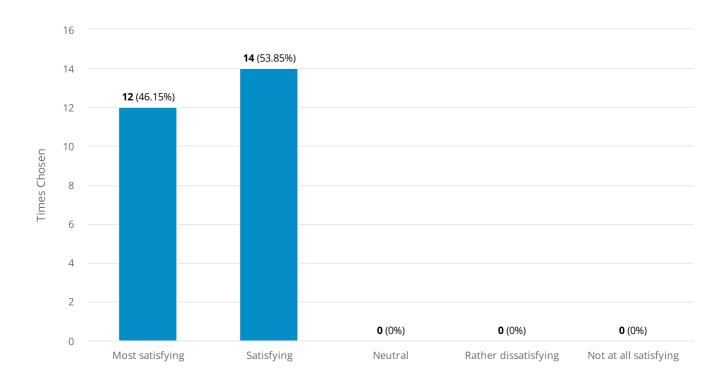
Online workshops – self – learning methods.



Evaluation_Training on reflective thinking and self-learning methods

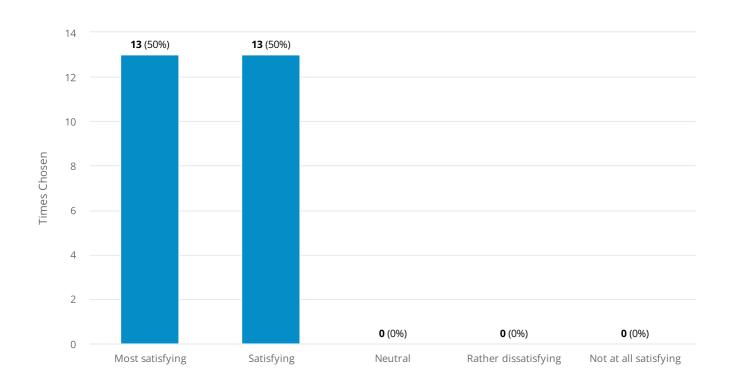
The event administration, structure and invitation were ...

Number of responses: 26



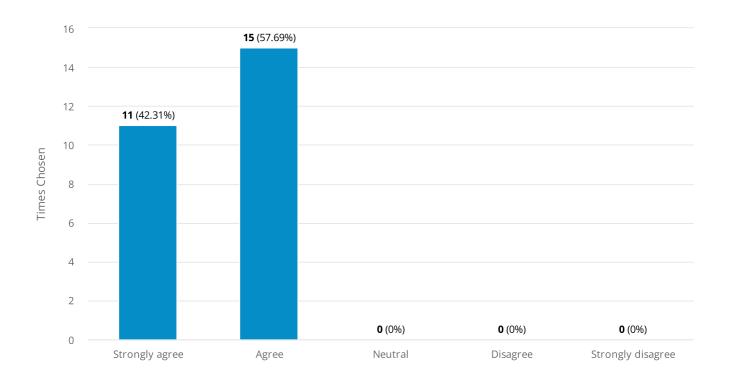
The program and covered topics were ...

Number of responses: 26



This event covered the topics I have expected.

Number of responses: 26



According to the first workshop day "Reflective thinking and self-learning methods on Monday 13.01.2025" I have the following comments, remarks or requests:

Number of responses: 16

Text answers:
The place of reflective thinking in educational structures was well presented among others
Kindly share the Presentation Slides if possible?
No comment
No comment
The free access tool on Visual/image creator
l didn't attend 13.01.2025

I learnt a lot and hope to start practicing what has been taught

The presentation was explicit on simple language

	The interaction was great
	great pacing
	Very Interesting and I appreciate your effort
	More workshops in future
	It has broaden my understanding of the concept
	The methods and tools discussed are relevant and will assist me in my teaching endeavours. Kudos to the facilitators
	Share the materials with participants.
	Reflective thinking is a very nice method to evaluate teaching methods and make changes to gain more attention and interest on the subjects from the students
O N	according to the second workshop day "Reflective thinking and self-learning methods on Monday 20.01.2025" I have the following comments, remarks or requests: umber of responses: 17 ext answers:
O N	n Monday 20.01.2025" I have the following comments, remarks or requests: umber of responses: 17
O N	m Monday 20.01.2025" I have the following comments, remarks or requests: umber of responses: 17 ext answers:
O N	In Monday 20.01.2025" I have the following comments, remarks or requests: umber of responses: 17 ext answers: Was very interesting and informative workshop, also i liked small breaks with interactive content
O N	In Monday 20.01.2025" I have the following comments, remarks or requests: umber of responses: 17 ext answers: Was very interesting and informative workshop, also i liked small breaks with interactive content This was the most interesting training and well taken for my personal career development and skills
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O N	In Monday 20.01.2025" I have the following comments, remarks or requests: umber of responses: 17 ext answers: Was very interesting and informative workshop, also i liked small breaks with interactive content This was the most interesting training and well taken for my personal career development and skills Kindly share the Presentations? No comment
O N	In Monday 20.01.2025" I have the following comments, remarks or requests: umber of responses: 17 ext answers: Was very interesting and informative workshop, also i liked small breaks with interactive content This was the most interesting training and well taken for my personal career development and skills Kindly share the Presentations? No comment No comment

Very interactive and explicit

Can we get help when we need via email on the use of some tools?

The presenters were clear and well prepared.

the session was well structured, with clear learning objectives. KUDDOS

I followed the workshop. It was lovely and I appreciate it. I would like to have the presentation. My email: lilian.mebrim@futminna.edu.ng

Machine learning in future

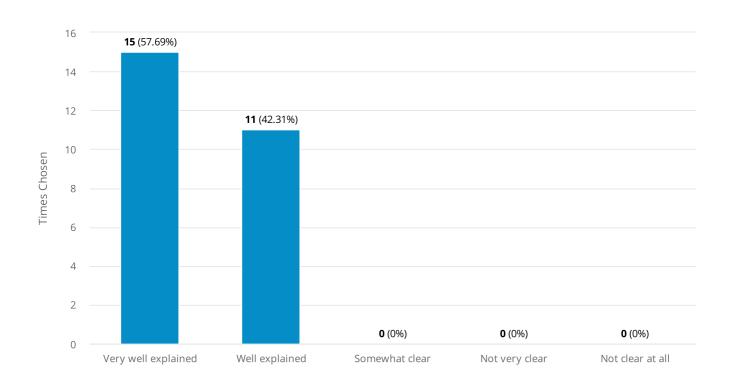
The presentations and contents are eccentric. More grace to the facilitators.

Quite interactive and informative

was very interesting, i learned about new self-learning tools and find new ways of self-learning

How well were the contents explained and made understandable?

Number of responses: 26



At the workshop I liked the least: / I would like to recommend or improve:

Text answers: Nothing to complain Everything was just alright Would like to recommend a shorter duration of presentation from 2 and 1/2 Hours to 1 and 1/2 Hours OK More interactive such sessions Every was well understood. I will like to have presentation sent to emals I would like that we can have accountable partners in using some of this e-learning tools Work and practice outside the workshop time More training The organisation Nil The workshop needs to be regular. At the workshop I liked most: / The following parts were very helpful for me: Number of responses: 16

Text answers:

Number of responses: 12

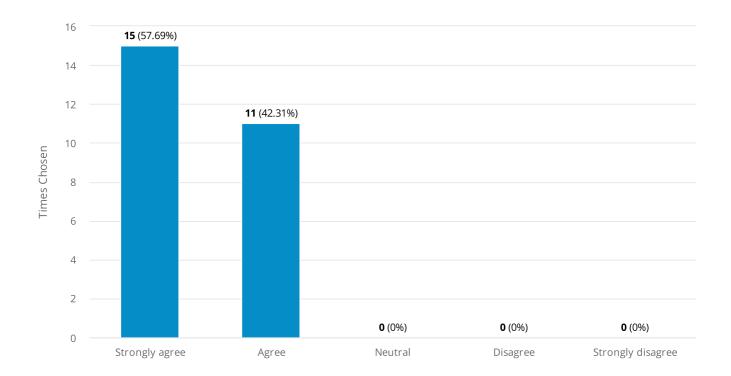
Presentations and emplanation of the topics with using examples and showing the possibility for practical using these methods in FVC studies.

New methods of self learning

The presentations, knowledgeable facilitators and the fact they were doing it a a team. Quite a diversity
l liked the Assignmants
Self learning
Al tool insight
Visualazation creation tools
Introduction of technology and the future world with Al
All parts were helpful
l like that they facilitators explained so well
various. it was generally great
Self learning methods
Vatual representation of text using Ai
The contents and delivery
The interactive sessions and questions.
Self-learning tools and the interactive parts from workshop were very good

Overall, the workshop and the coverage of this topic was useful and relevant.

Number of responses: 26



I would rank the workshop series with the following number of stars:

Number of responses: 26

