

Collaborative Teaching for Enhanced Students Learning Experience

PROF Ts. DR. ZAIDATUN TASIR
SCHOOL OF EDUCATION
FACULTY OF SOCIAL SCIENCES & HUMANITIES
UTM JOHOR BAHRU
p-zaida@utm.my



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

humanities.utm.my

MENDIDIK & MENGINSAN

COLLABORATIVE TEACHING CONCEPT



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

What is Collaborative Teaching??

- Co-teaching or Collaborative Team Teaching
- Collaborative teaching, sometimes called cooperative teaching or team teaching, involves educators working in tandem to lead, instruct and mentor groups of students.
- **Co-teaching is not one teacher maintaining all planning and instructions**



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

What is Collaborative Teaching??

- Co-teaching or Collaborative Team Teaching
- Collaborative teaching, sometimes called cooperative teaching or team teaching, involves educators working in tandem to lead, instruct and mentor groups of students.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Co-Teaching Models

- **Team teaching.** Both teachers plan lessons and work together to teach students.
- **One teaches, one assists and/or observes.** One teacher actively teaches while the other assists, gives individual help as needed, or observes.
- **Station teaching.** Teachers may be responsible for different parts of the lesson plan. This allows them to play to their teaching strengths.
- **Parallel teaching.** The class is split in half, and each teacher takes one group.
- **Alternative/Differentiated teaching.** One teacher teaches a larger group of students, while the other teacher works with a smaller group inside or outside of the classroom.
- **Supplemental Teaching:** This strategy allows one teacher to work with students at their expected grade level while the other teacher works with those students who need the information and/or materials re-taught, extended, or remediated.

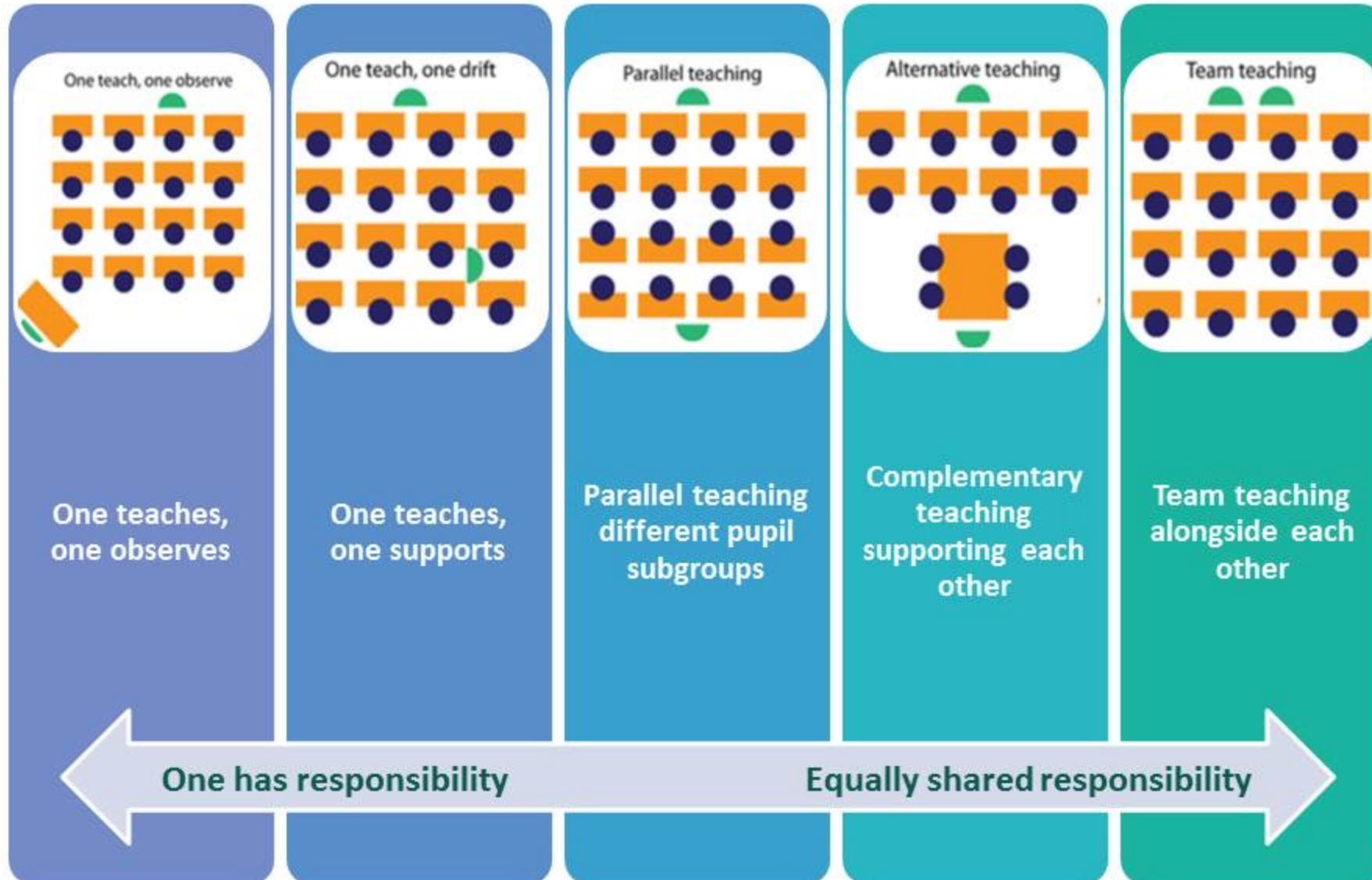


FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

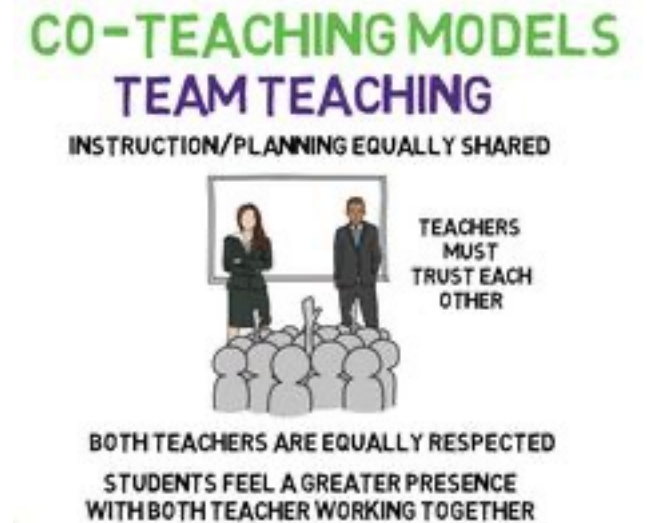
DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Models for Co-teaching



Team Teaching

- Both teacher are delivering the same instructions at the same time to 1 group.
- “One brain in two bodies”
- With the situation of pandemic – this is the best solution - pair the teacher with someone who expert in the knowledge and also in using online learning tools.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

One teaches, one assists and/or observes

- One teacher provides assistance during large group instruction, while the other teacher monitors.
- When to use:
 - When the lesson lends itself to delivery by one teacher
 - When one teacher has particular expertise for the lesson
 - When the partners of co-teaching involve senior vs junior academician
 - In new co-teaching situations – to get to know each other
 - In lessons stressing a process in which student work needs close monitoring – e.g. teaching computer programming.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Station Teaching

- Content & students are divided into 3 groups
- Two stations are teacher led, while the 3rd station is where the students works independently
- Groups rotate between stations
- By the end of the session, students will have completed all 3 stations
- Each teacher will have seen every student.

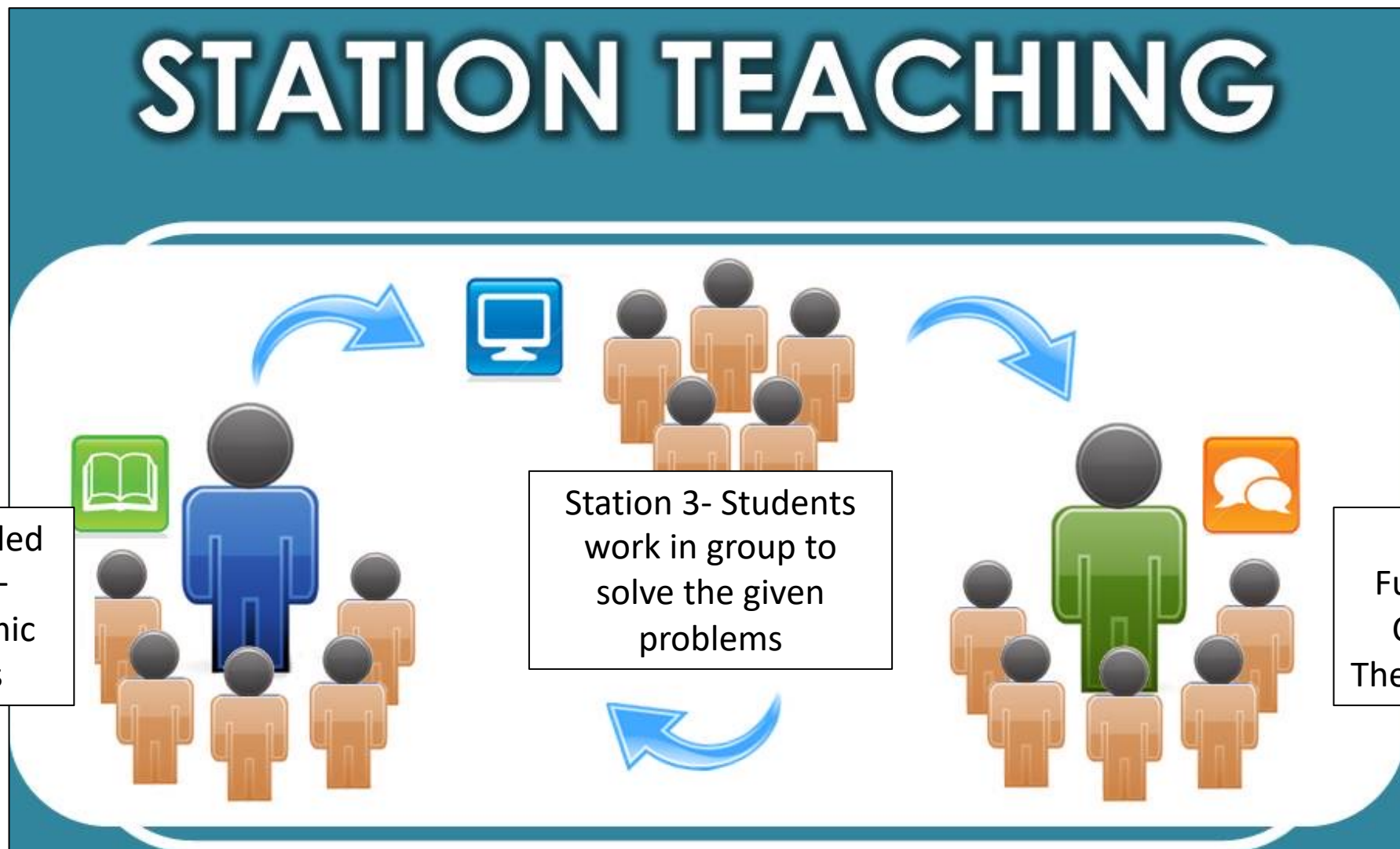


FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

STATION TEACHING



Station 2- Guided Instruction – Thermodynamic Calculations

Station 3- Students work in group to solve the given problems

Station 1- Fundamental Concept of Thermodynamic



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Parallel Teaching

Operational Definition	Advantages	Disadvantages
<ul style="list-style-type: none"> • Students are divided into 2 groups • Each teacher delivers same content at the same time 	<ul style="list-style-type: none"> • Lower students to teacher ratio • Promotes participation • Works well for drill and practice, review session • Small group - Teacher can pay more attention to student's need 	<ul style="list-style-type: none"> • Noisy & lot's of movement. • More joint planning • Teachers must be comfortable with each other • Possibility for confusion • Not for new teachers



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Alternative Teaching

Operational Definition	Advantages	Disadvantages
<ul style="list-style-type: none"> • Students are divided according to their performance – low vs high • Each teacher delivers same content at the same time using different approach 	<ul style="list-style-type: none"> • Personalised learning can take place • Works well for class that has diverse student's background – PG class. • Instructions will tailor to student's need • Motivate all students • No one left behind 	<ul style="list-style-type: none"> • Need more preparation • Challenges to find the suitable LnT approaches.

CO-TEACHING MODELS

ALTERNATIVE TEACHING

MANAGES THE MAJORITY OF
THE CLASSROOM



TEACHES A
SMALL GROUP
OUTSIDE
CLASS



STUDENTS WHO HAVE MISSED
ASSIGNMENTS HAVE THE
CHANCE TO CATCH UP

FINDING SPACE CAN BE
DIFFICULT



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Parallel & Alternative Teaching through Online Synchronous Communication Tool

- Divide the student into two breakout rooms
- Each break-out room in charged by different teacher
- Group presentation will be conducted in main room
- To motivate students – use challenge/competition-based assessment method – e.g Hackathon.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Supplemental Teaching

- Provides additional support for struggling student –
Lecture vs Tutorial
- Facilitates enrichment opportunities
- Offer absent students “catch up” time
- Offer time to develop missing skills
- Keep individuals and the class on pace



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Why?

- improve student learning.
- combine strengths, share responsibilities,
- learn from each other
- sparks of innovation
- customize the pedagogical and technology experiences



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Key benefits of Collaborative Teaching

- a sense of "all being in it together"
- having a critical friend to support you
- trying new things and getting feedback from students and colleagues on their impact
- being part of an ongoing process on reflection.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Benefits

- Increased Academic Effort
- Increased Understanding of Student Data
- More Creative Lesson Plans
- Less Teacher Isolation



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Benefits of active teacher collaboration

- Teachers take collective responsibility for the progress of all learners.
- Teachers who know how to collaborate effectively will model the skills of collaboration to their learners.
- Provide opportunities for teachers to learn from and with each other on an ongoing basis.
- Capitalise on each other's strengths, support each other's professional growth, debate ideas, and problem solve together.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Teacher collaboration involves:

- debating, planning, and problem-solving together
- inquiring together, using evidence and research to guide decision-making
- capitalising on each other's strengths and working with each other's weaknesses
- actively contributing to a respectful and supportive learning environment.
- nces



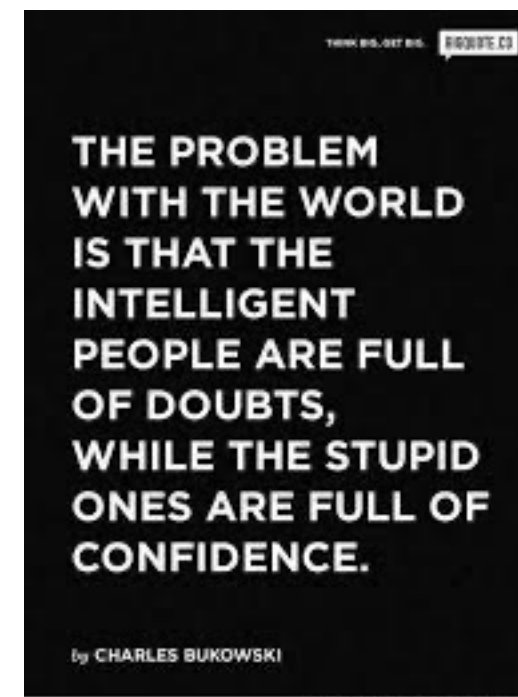
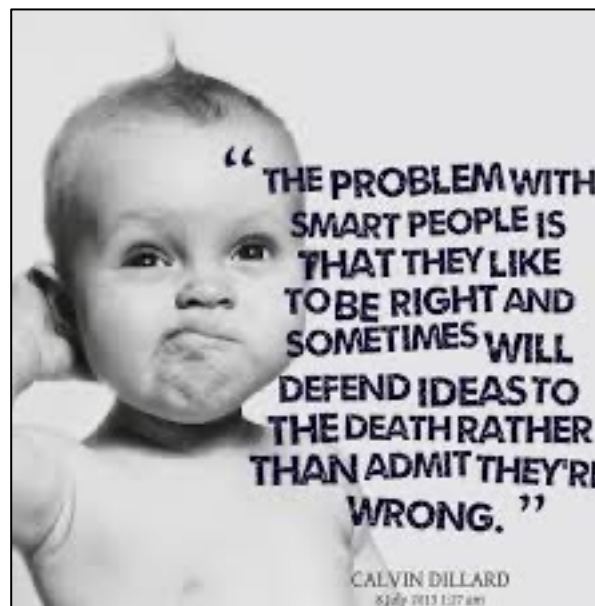
FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Challenges

- Lack of a True Professional Learning Community
- Lack of Planning, Collaboration, or Reflection Time
- Personality Conflicts and Territoriality
- Time Management
- Teamworking Skill



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Successful Co-Teaching

- getting to know each other's strengths, skills, and ways of working
- developing a shared understanding of the purpose and benefits of collaboration
- clarifying how to work together effectively
- identifying practices that could support them to collaborate effectively
- ensuring the team [charter](#) aligned with the school vision and values.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Tips for successful co-teaching

- Change of mindsets – Shifting from “my learners” to “our learners”
- Collaboration and inquiry
- Be professional
- Optimistic and making it works
- Mutual respect, understanding, and trust



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Key factors that can contribute to relational trust include:

- keeping learner needs at the centre of everything you do
- encouraging each other to try new things
- being familiar with people's strengths and suspending judgement about their weaknesses
- being open about your own mistakes and challenges
- accepting other teachers' "non-negotiables"
- learning how to engage in difficult conversations
- having strategies in place for when things aren't going well.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

WORDS TO PONDER...

WORDS TO PONDER...

They need to know that it is a team... You have to be flexible, you have to have good communication skills and you just really need to be able to work with somebody else. It is not all about you [laughing].

You have to learn to work well with somebody and it takes time to do that... I am not one who is afraid to ask any question, any time or make sure you know what is okay with the other lecturers-- "Is it okay if they put this in their book bag?"



PROFESOR DR ZAI DATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

humanities.utm.my

MENDIDIK & MENGINSAN

WORDS TO PONDER...

Just to always be extra cautious. But flexibility and communication because it is a team, an inclusive setting is a team structure. That is very important, if you don't have that team or if you have two lecturers who don't/can't work as a team or can't be flexible, the students are going to pick up on that and it is not going to benefit the students.



PROFESOR DR ZAI DATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

humanities.utm.my

MENDIDIK & MENGINSAN



FSSH UTM

PROFESOR DR ZAI DATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

The Best Partners of Collaborative Teaching

- Beginning lecturers with an experienced lecturer, or
- Struggling lecturers with excellent lecturers, or
- A subject matter expert lecturer with a pedagogical expert lecturer or
- Equal strengths and teaching background lecturers or
- Voluntary and spontaneous



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

COLLABORATIVE TEACHING – TECHNOLOGY TOOLS



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Using Technology to facilitate Co-Teaching

- Facilitating communication
- Creating and sharing resources
- Sharing student data and tracking your work
- Co-planning in different physical spaces
- Scheduling



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Using Technology to facilitate Co-Teaching

- Write collaborative lesson plans in [Google Docs](#)
- Set up recurring, online meetings to lesson plan – Google Calendar
- Use e-learning system of your university to create learning activities simultaneously.
- Divide tasks on who will take in charge in managing e-learning activities. E.g – Lecturer A will manage online discussion forum, Lecturer B will manage – online chat etc.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

COLLABORATIVE TEACHING – STUDENTS LEARNING EXPERIENCE



FSSH UTM

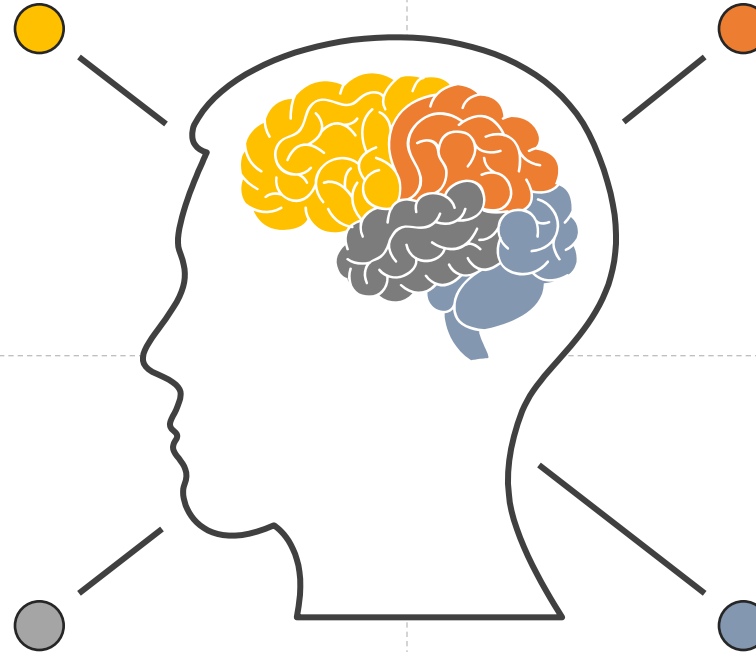
PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

LEARNING IS...

LEARNERS
WILL INTERACT
WITH CONTENT,
EXPERTS,
PEERS

A SOCIAL
NETWORK
RELATION



THE CROWD IS
MASSIVE AND
COMPLEX

INTERACT WITH
SOCIETIES,
ENVIRONMENTS,
TECHNOLOGIES
AND
SURROUNDINGS



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

LEARNING EVOLUTION

**Theory of Inquiry
(Dewey, 1938)
To Community of
Learning**

**Learning in the
community**

Web-pages, Learning
Management Systems (LMS) and
FB groups

Independent Learners
High Self-Regulation
Highly Motivated Learners
High Social Presence
Awareness
Peer Scaffolding Skills, Peer
Feedback, High self-esteem
Strong in varies of multiple
intelligences, Wisdom in
learning
Peer Assessment
Self-Assessment

MOOCs and Facebook's pages,
Webinars etc. which are less
structured and have a cohort-less
base

**Learning with the
Crowd**

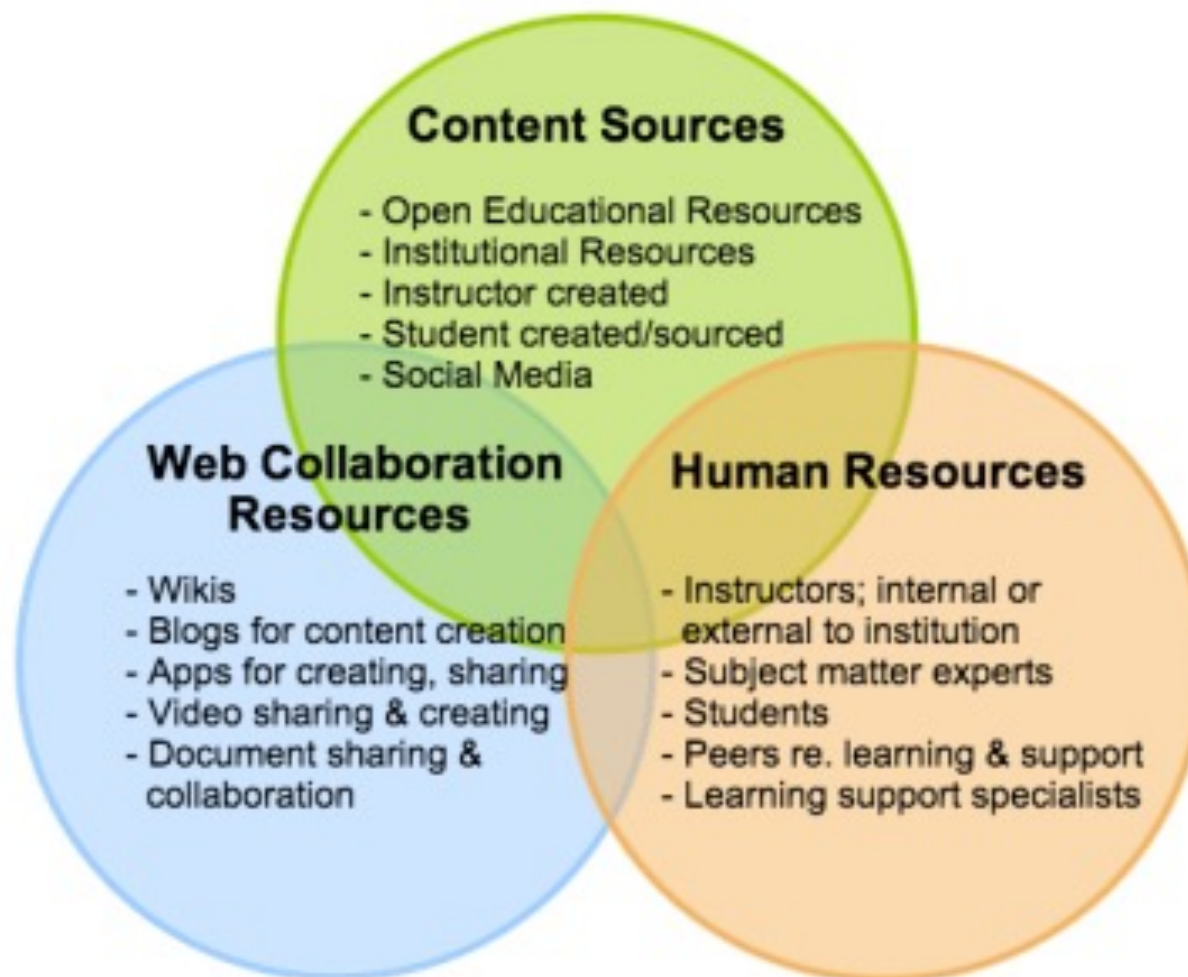


PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

FSSH UTM

Learning Design Framework Resources to Create Optimal Student Learning Experiences



PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

OVERALL CHANGE
RANKING FROM
2019

TOOL

CATEGORY

PL100

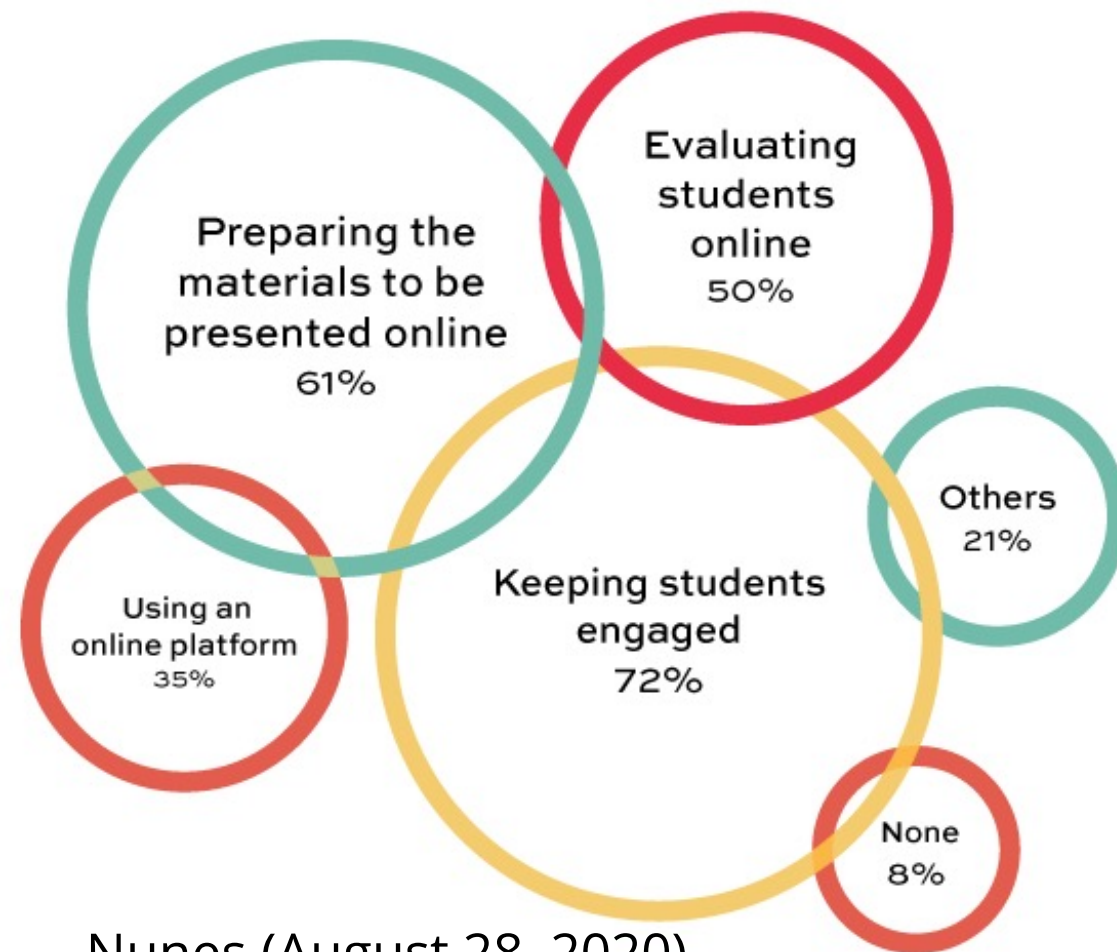
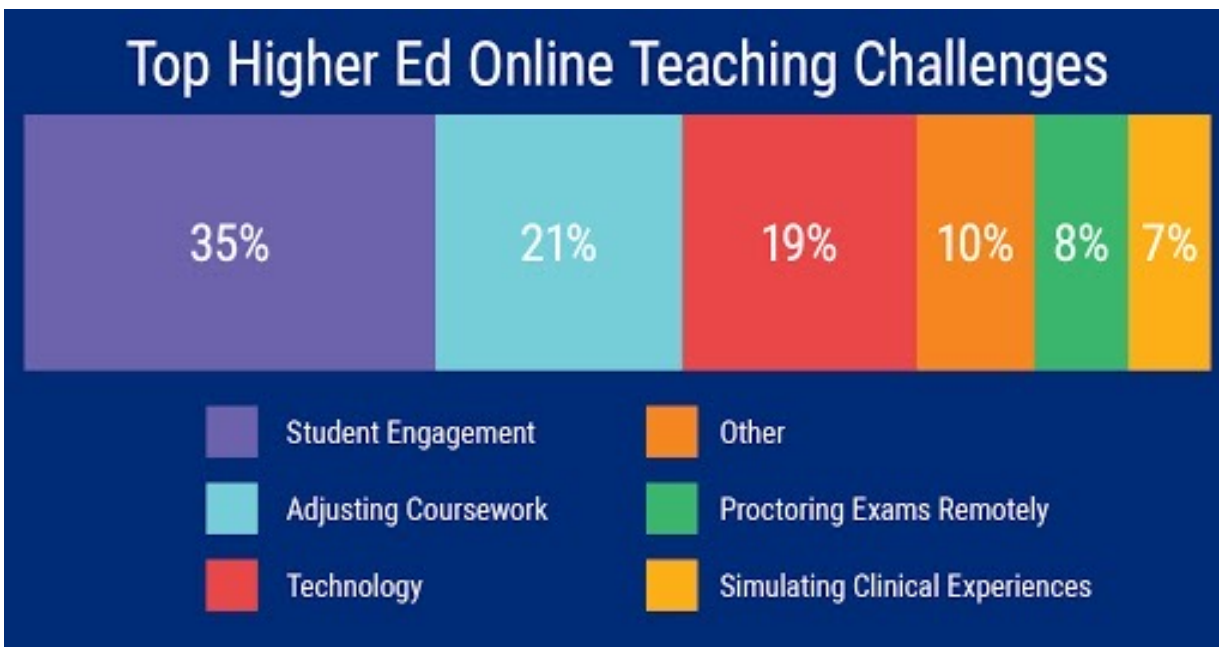
WL100

ED100

	OVERALL CHANGE RANKING FROM 2019	TOOL	CATEGORY	PL100	WL100	ED100
1	SAME	YouTube	web resource (videos)	1	4	1
2	UP 8	Zoom	video meeting platform	5	1	3
3	DOWN 1	Google Search	search engine	2	3	6
4	DOWN 1	PowerPoint	office tool / suite	9	5	2
5	UP 6	Microsoft Teams	collaboration platform	15	2	8
6	UP 1	Word	office tool / suite	10	6	5
7	DOWN 1	Google Docs & Drive	office suite file sharing platform	11	10	4
8	DOWN 3	LinkedIn	social network / community	3	8	
9	DOWN 5	Twitter	social network / community	4	28	25
10	UP 4	WhatsApp	chat tool	6	9	10



What challenges have you encountered in teaching online?



Survey (M&S) - August 19, 2020



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Nunes (August 28, 2020)

Engagement in Online Learning

- Online Learning without engagement is like a car without an engine.
- Engagement - behavioral, cognitive, and affective (emotion, motivation)
- How to engage learners in online learning??
- Learning activities and environment must be interesting.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Online Learning Tasks

- Challenge the students to solve real world problems
- Set collaborative learning environment (chat & forum)
 - give marks
- Set self-reflection channel – to catch student’s thinking
 - metacognitive
- Provides learning resources – youtube video, articles, extra notes in slideshare
- Self-paced learning – Powerpoint with narration.



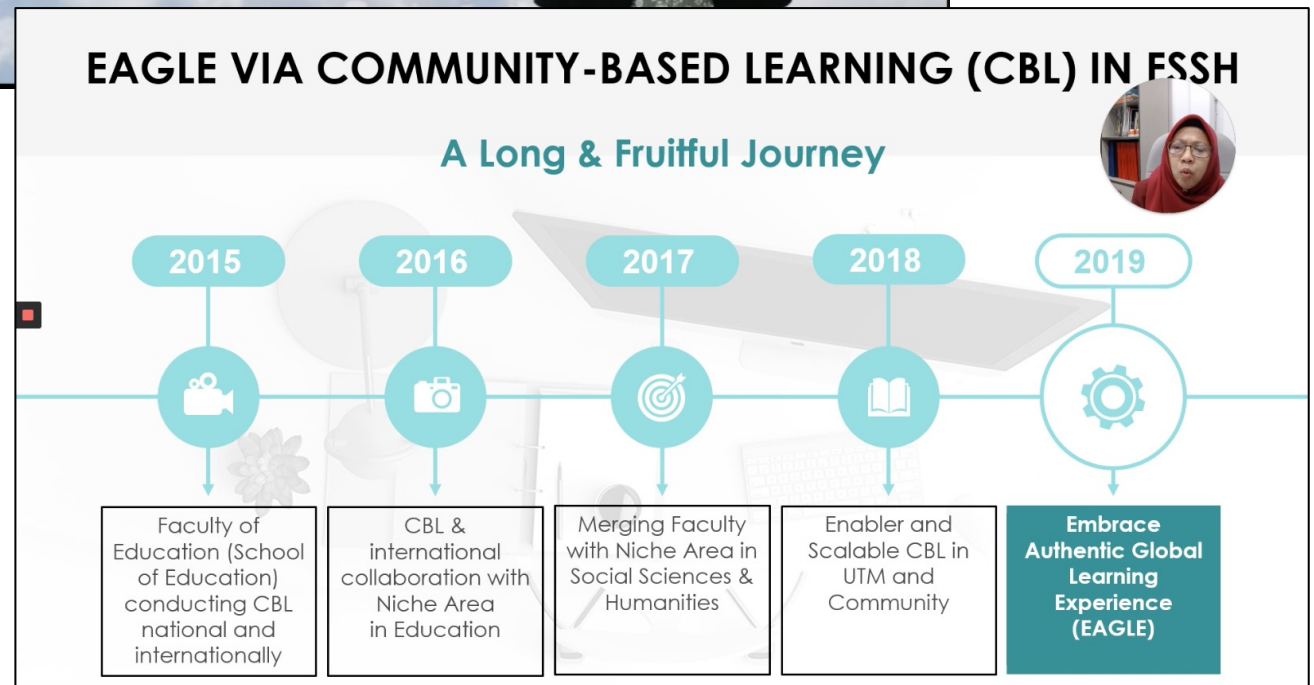
FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Filming, Recording and Editing your Online Course

- Using iPhone
- Camtasia
- Facebook Live
- Powerpoint
- Skype
- Google Video hangouts
- Zoom
- Webex
- Streamyard
- Loom



Self-Learning Material Characteristics

- Self-contained
- Self-explanatory
- Self-directed
- Self-motivating
- Self-evaluating
- Self-learning



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Self-Learning Material

- Powerpoint slides with narration
- Self-reading/learning materials - .pdf, .ppt, online books, youtube etc.
- Any Additional OER, MOOCs etc.
- Self-assessment on assignment, test, quiz etc.
- Chatbot – chat robot



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

The invisible's teacher built in the learning materials facilitates the learners in their studies in the same way as the classroom teacher does within the face-to-face classes

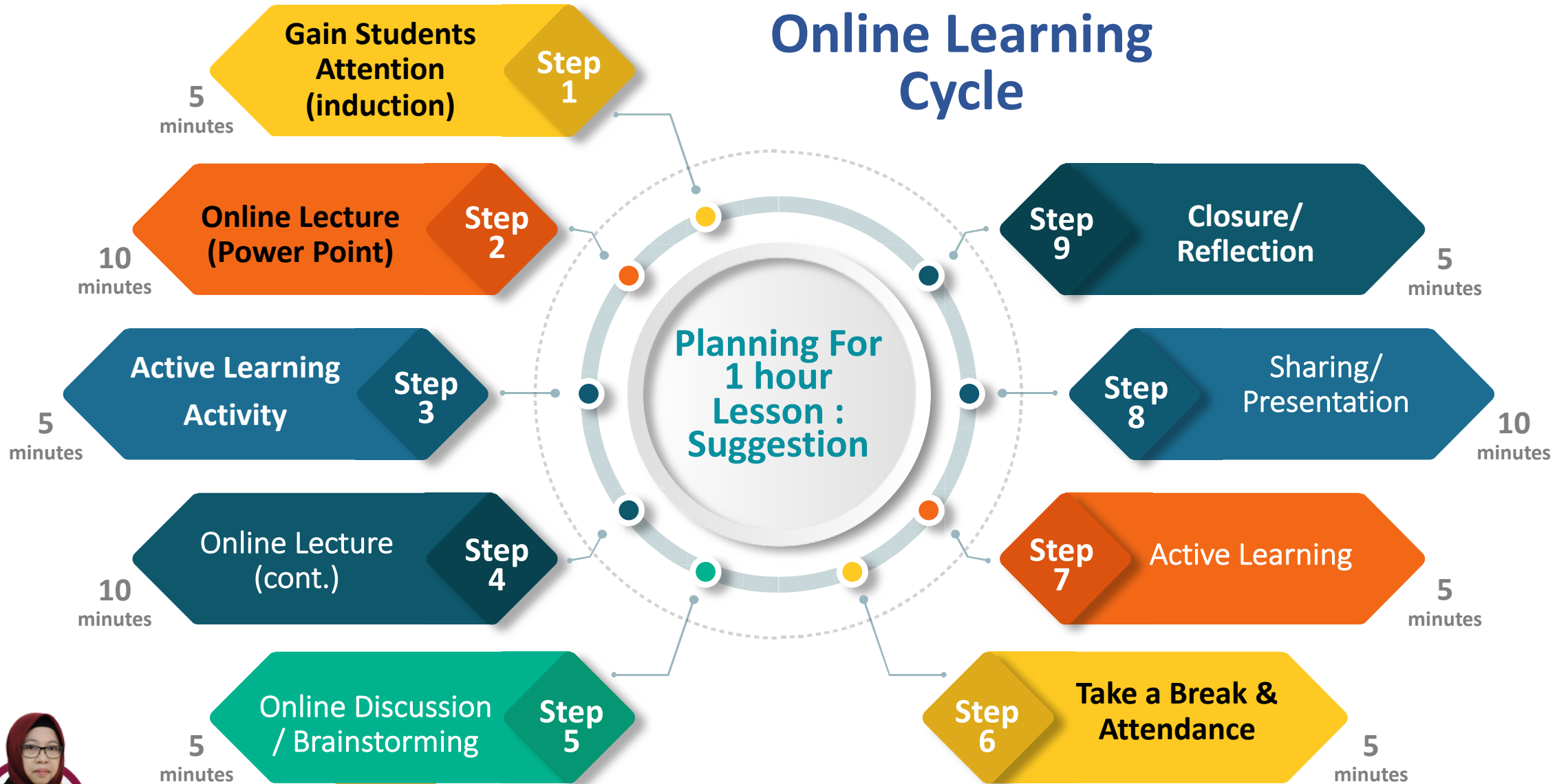


FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Online Learning Cycle



PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

FSSH UTM

Class Agenda

25 October 2020

10 minutes – Class Attendance QR Code Scan

20 minutes – Educational Technology vs Instructional Technology vs Digital Technology vs Digital Literacy – *Notes 1*

15 minutes – TPACK & TPACK Forum – *Notes 2*

10 minutes – Game on TPACK

10 minutes – BREAK

20 minutes – Technology vs Theory – *Notes 3*

10 minutes – Forum: Product & Process of Edu. Tech.

15 minutes – Emerging Technology – *Notes 4*

10:25 – 11:00 pm – Closure Activity

Homework:

1. Forum - Professional Associations/Organisations related to ICT in Education and Edu Tech.
2. Forum: Research Trends and The Impact of Emerging Technologies
3. Forum: Top 200 Tools for Learning 2020
4. Forum: Your comments on our class today...

Quizlet | 









Class Agenda

22 November 2020

10 minutes – Class Attendance QR Code Scan

Part I – 30 minutes – LMS vs CMS vs LCMS

- 30 minutes – Break-out Room: *Notes 3*
 - Set a group leader, a writer, a presenter.
 - What are the differences among those applications?
 - Create one slide to differentiate those three applications
 - Online Presentation by a group presenter.

Part II – 30 minutes – Heutagogy Learning Activity

- 30 minutes – Break-out Room –

Heutagogy Learning Activity: Let's do some reflections on this issue:

- a. Have you experienced in **DESIGNING AND DEVELOPING** any learning and teaching aids such as websites, mobile apps, learning activities etc. for students/trainees?
- b. How do you prepare the **LnT** aids?
- c. What steps that you used in preparing them?
- d. Have you experienced this situation?
 - The learning activities/**apps** are not attractive enough
 - The learning activities/apps failed to engage student's learning
 - Students unable to understand the apps or websites
 - Did not know where to start in designing **LnT** aids.
 - Did not have any systematic steps/procedures in developing **LnT** aids.

10 minutes – BREAK

Part IV – 30 minutes – Instructional Design Model

- 20 minutes – ID Model – *Article ID*
- 10 minutes – Assignment 01

Homework:

1. Online Learning Survey
2. Assignment 01
3. Forum: Heutagogy Learning Activity



Breakout Rooms



“Heutagogy applies a **holistic approach** to develop **learner’s capabilities**, with learning as a **proactive process** where learners serves purpose of the **agent in their own learning**, which occurs as a result of **personal experiences**” - Hase and Kenyon (2000)



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

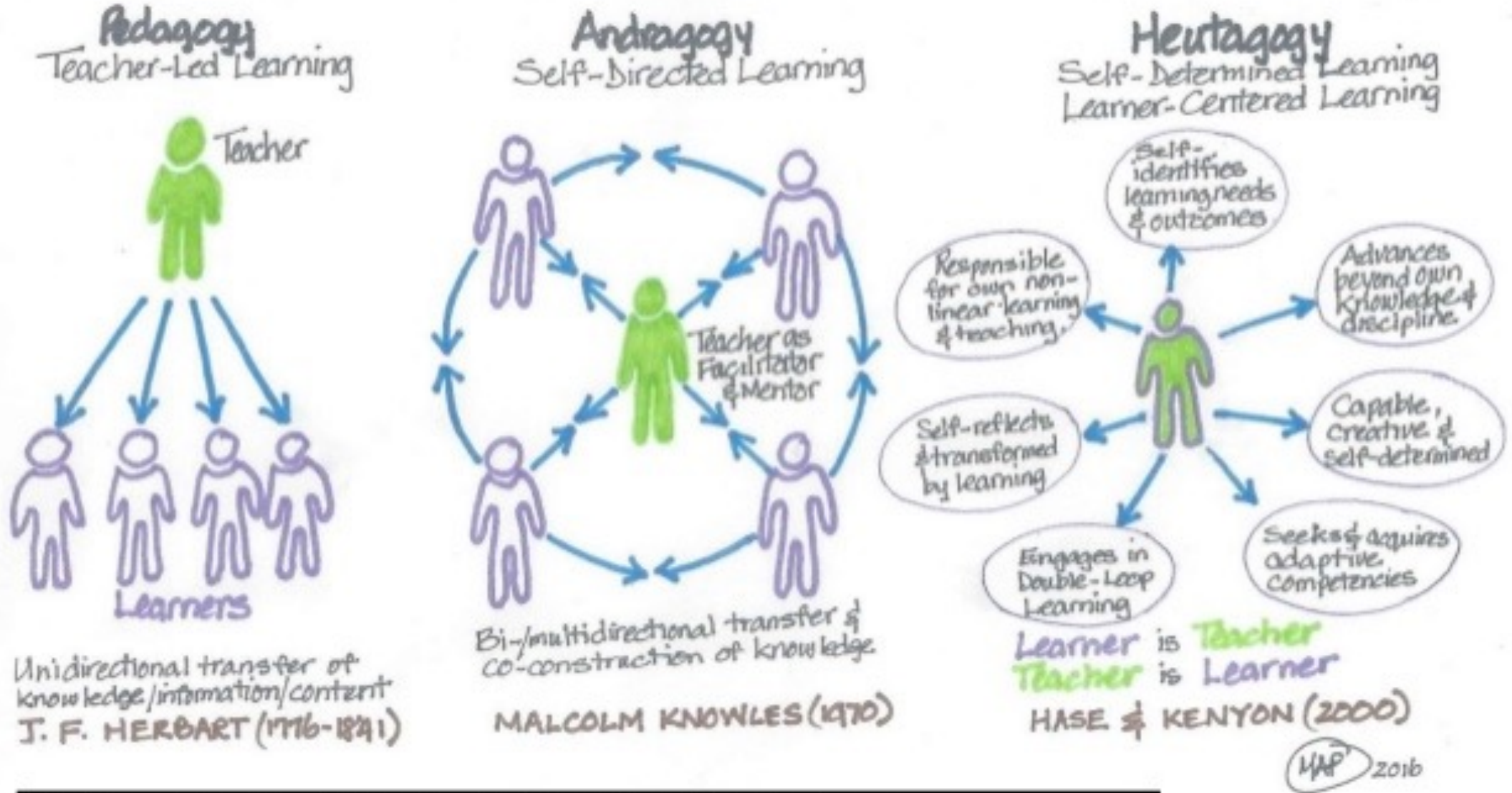
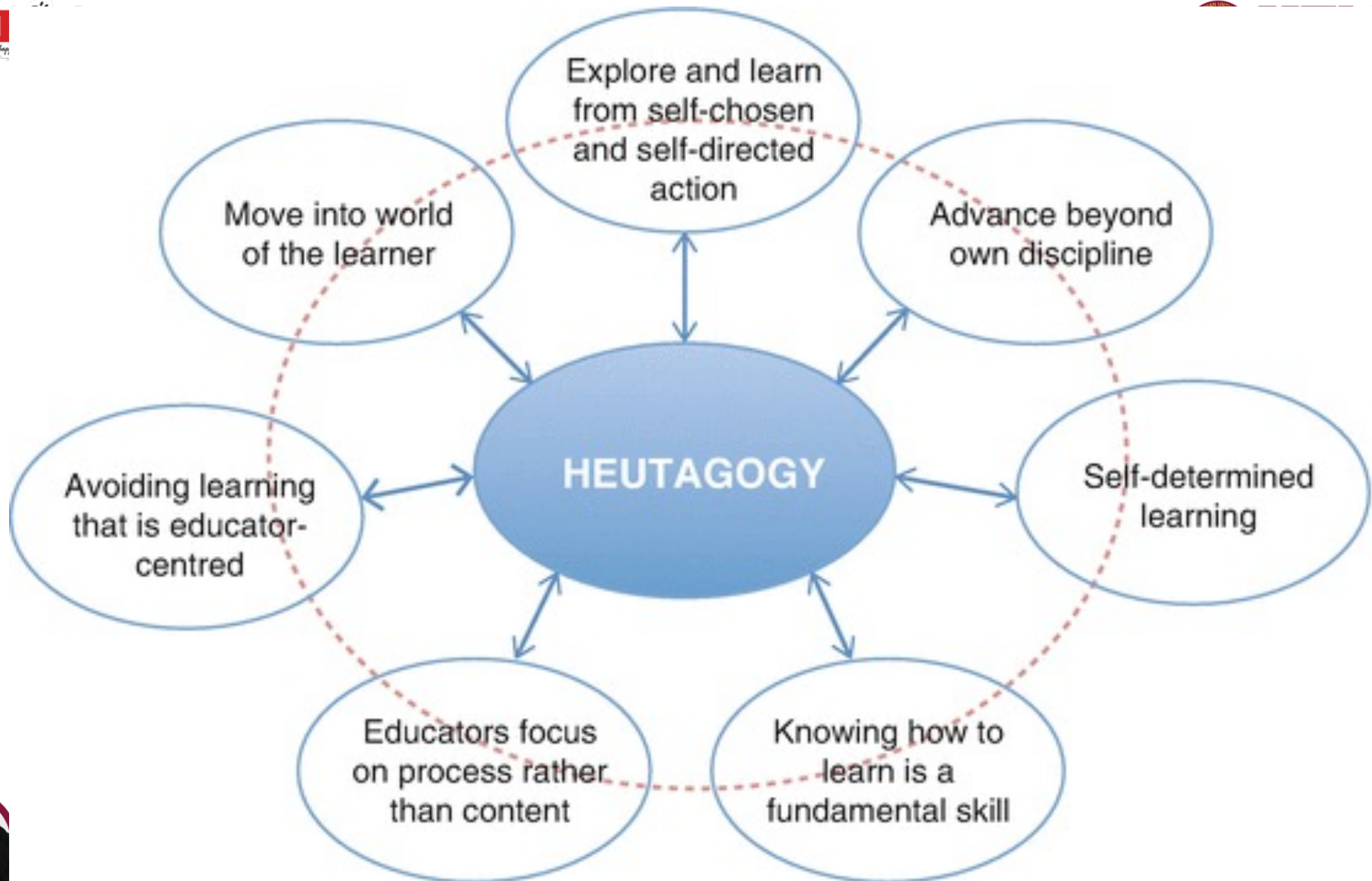
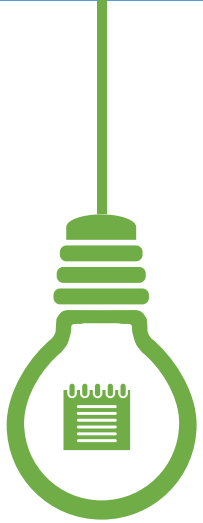


Figure 1. The Pedagogy, Andragogy, Heutagogy (PAH) Continuum.

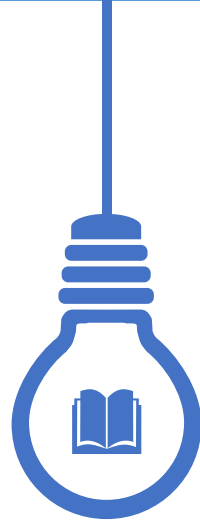




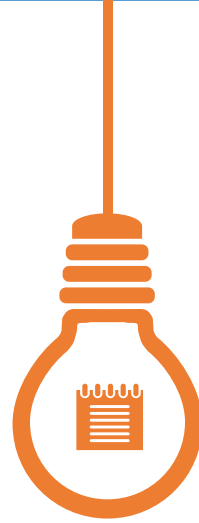
Heutagogy Learning Activities/Tasks - Enablers



**Personalised
learning
environments
(PLEs)**



**Social media,
such as
Twitter,
LinkedIn,
Google Drive,
and Facebook**



**Flipped
classrooms –
combined
with
technology**



**Mobile
learning in the
form of
smartphones,
pads, and
tablets**



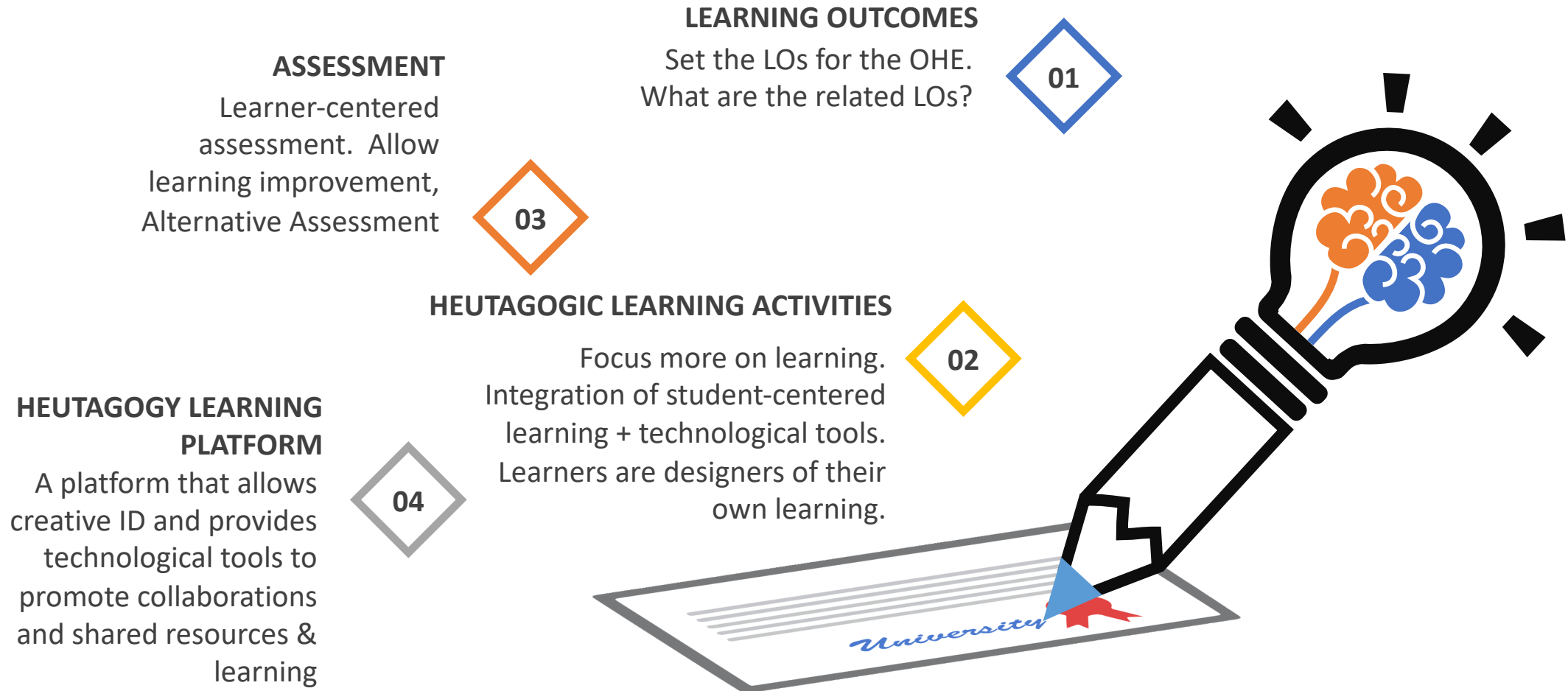
**Learning
analytics
for double
loop learn**



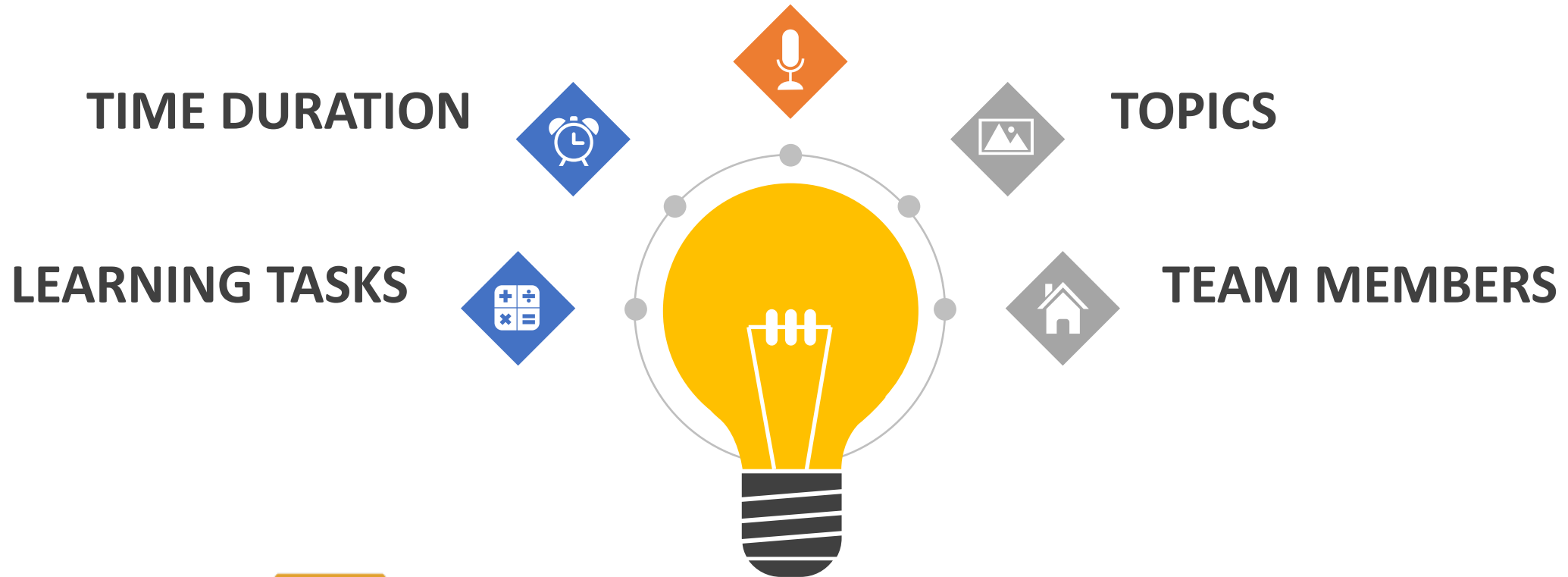
PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Components of Online Heutagogy Environment



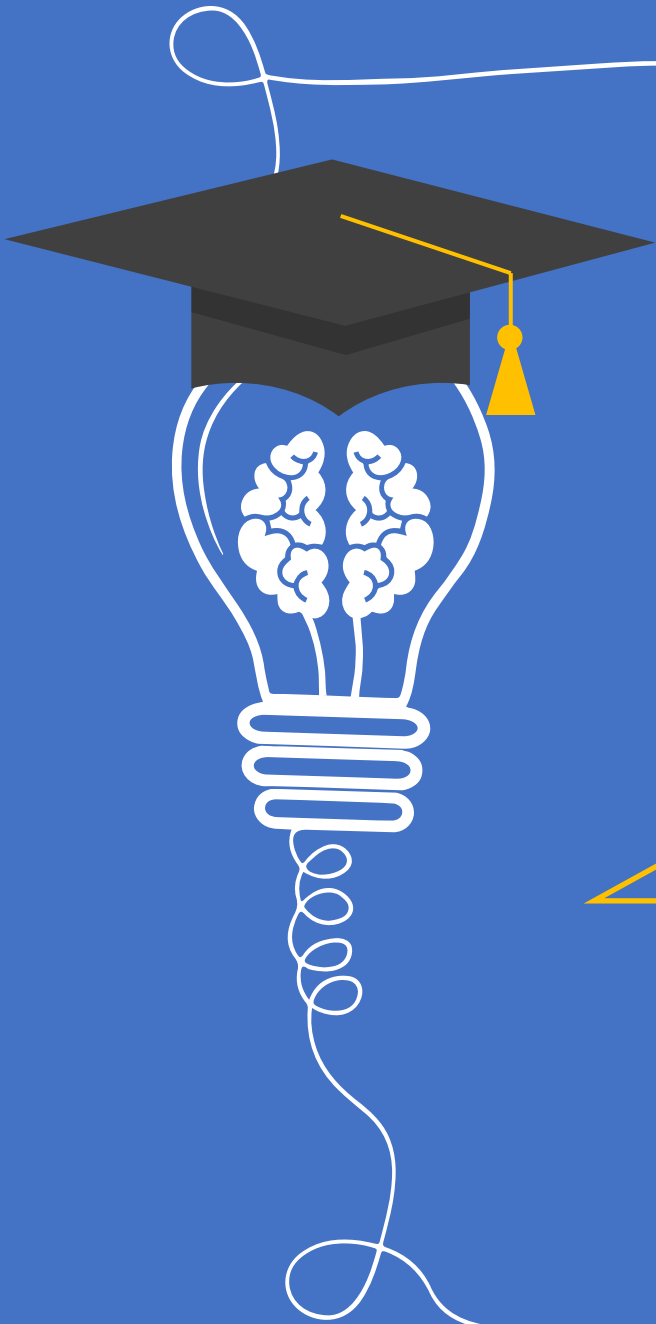
ASSESSMENT METHOD



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN



Don't overload
students...let them learn
from YouTube, an FAQ, or
linking to an expert

Peeragogy

- Howard Rheingold coined the term “Peeragogy” in 2012.
- He combined social media with paragogy to describe peeragogy as the
 - “future of high-end online learning in which motivated self-learners collaborate via a variety of social media to create, deliver, and learn an agreed curriculum.”
- Each learner serves in the “instructor” role and creates the syllabus and strategy to promote critical thinking and thoughtful discussions.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Why Peeragogy?



To empower the worldwide population of self-motivated learners who use digital media to connect with each other, to co-construct knowledge, to co-learn.



Learning is a social, active, and ongoing process.



Co-learning is ancient; the capacity for learning by imitation and more, to teach others what we know, is the essence of human culture. We are human because we learn together.



It is becoming clear that with today's tools and some understanding of how to go about it, groups of self-directed learners can organize their own courses online.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Peeragogy – Group Work



The group needs to:

01

establish a group consensus for expectations, learning objectives, media technology, and the social contract of the course.

02

formulate a process for communicating with one another, how to respond to questions, give feedback in a timely manner, and evaluate performance at the completion of the course.

03

be a process to translate changes to the learning environment to be implemented in the next cycle.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

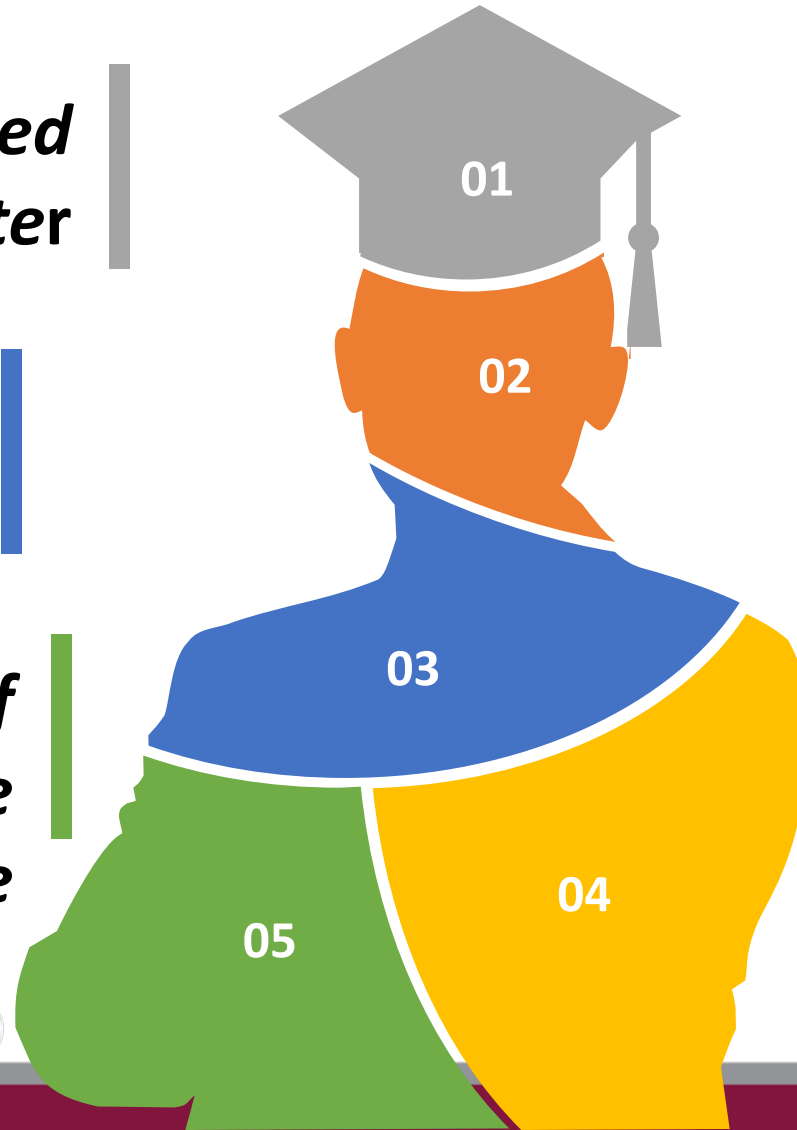
DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Five working principles of Peeragogy

***Decentralized
center***

***Peers have different
but equal perspectives***

***Realize the dream (if
you can), then move
one***



***Meta-learning as a
source of knowledge***

***Learning is distributed,
not linear***



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Peeragogical Technology Tools



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Use Google Slides to identify Student's Learning

Class Activity – “Everybody must contribute”

Week 02

1

Instructions (10 minutes activity)

- In this activity, each slide is belong to each student.
- You need to draw or write what have you learned from Notes 1, 2 and 3
- Add also points that you did not understand from Notes 1, 2 and 3.
- Ok lets start!

2

AHMAD AMIN BIN ALEMAN

What I understand
 -educational technology, instructional tech, digital literacy, digital technology - as an educational technology teacher really need to understand this
 -TPACK framework
 -edtech should be process and also product
 -learning theories
 -new learning theories
 -education technology tools

What I little bit not understand
 - what is "period" in graph

3

AIDALIZA BINTI AZMI

- Teachers should be able to integrate pedagogical knowledge together with content and technological knowledge in order to deliver meaningful lessons
- Technology is no longer just a tool, it also changes the way you perceive things and the way you think
- Since students of new generations are digital natives, teachers must improve their knowledge in digital skills and literacy

4

CHUA YI FEI

- **TPACK** - Technology, Pedagogy, Content Knowledge (Master of 21st century classroom)
- **Learning Theories** - Behaviorism -> Cognitivism -> Constructivism -> Connectivism
- **Learning theory - technology cycle** of optimism and disappointment (Grabowski, 2009)

Top Tools for Learning 2020

1. YouTube	4. PowerPoint
2. Zoom	5. Microsoft Teams
3. Google Search	

???

- Not so clear about what are augmented and virtual reality :(

- Googled it and have some basic understandings now :)

5

GOH KOK MING

Recap for today:

- Digital Literacy - 4 types of literacy
- Educational technology vs instructional technology
- TPACK model
- Technologies VS Theories - Grabowski's Graph
- Technology Challenges that faced today
- Connectivism - New emerging learning theory of digital age
- EdTech - Product? Process? Both?
- Digital transformation: AR/VR, Big Data, Security, IoT & Personalized
- Technology tools that used in 2020 - Jane Hart

6

GOPI A/L KUPUCHITTY

EDUCATIONAL TECHNOLOGY VS INSTRUCTIONAL TECHNOLOGY VS DIGITAL TECHNOLOGY VS DIGITAL LITERACY (media, information, ICT, computer)

6 challenges for educational technology in education (PD, resistant to change, MOOCs, deliver informal learning, failure in personalised learning because lack of tools, failure to deliver effective formative assessments)

TPACK (pedagogy + content + 21st technology=masterful)
 pedagogy+ content = good but dated
 content + technology=modern but limited
 pedagogy + technology= exciting but disconnected

educational theories (behaviourism-->cognitivism-->constructivism-->connectivism * dilema 2009 grabowski)

educational technology as tool / process but we learnt that instructional technology is a part of educational technology

7

HASBE BIN MOHAMED

Isu dalam Teknologi Pendidikan

- Guru masa kini perlu mahir dalam pedagogi, kandungan dan teknologi.
- Kerangka TPACK menerangkan gabungan tiga kemahiran yang perlu ada pada seorang guru pada abad 21.
- *Educational Technologist* perlu sedar teknologi merupakan disiplin yang sentiasa berubah dari masa ke masa.
- Ada 6 cabaran teknologi dalam dunia pendidikan.

8

JEYAMALAR A/P GOPI

1. Educational Technology vs Instructional Technology
2. Digital Literacy (media, information, ICT, Computer literacy)
3. TPACK
4. Challenges for educational technologists in the 21st Century (dynamic discipline)
5. traditional role vs constructivist way

I can't understand :

1. Educational Technology vs Instructional Technology
2. Existing learning theories

9

WHAT IS COOPERATIVE LEARNING?

- CL is team-based
- A team is "a small number of people with *complementary skills* who are committed to:
 - **a common purpose,**
 - **performance goals, and**
 - **approach for which they hold themselves *mutually accountable*"**

(Katzenbach & Smith, 1993)

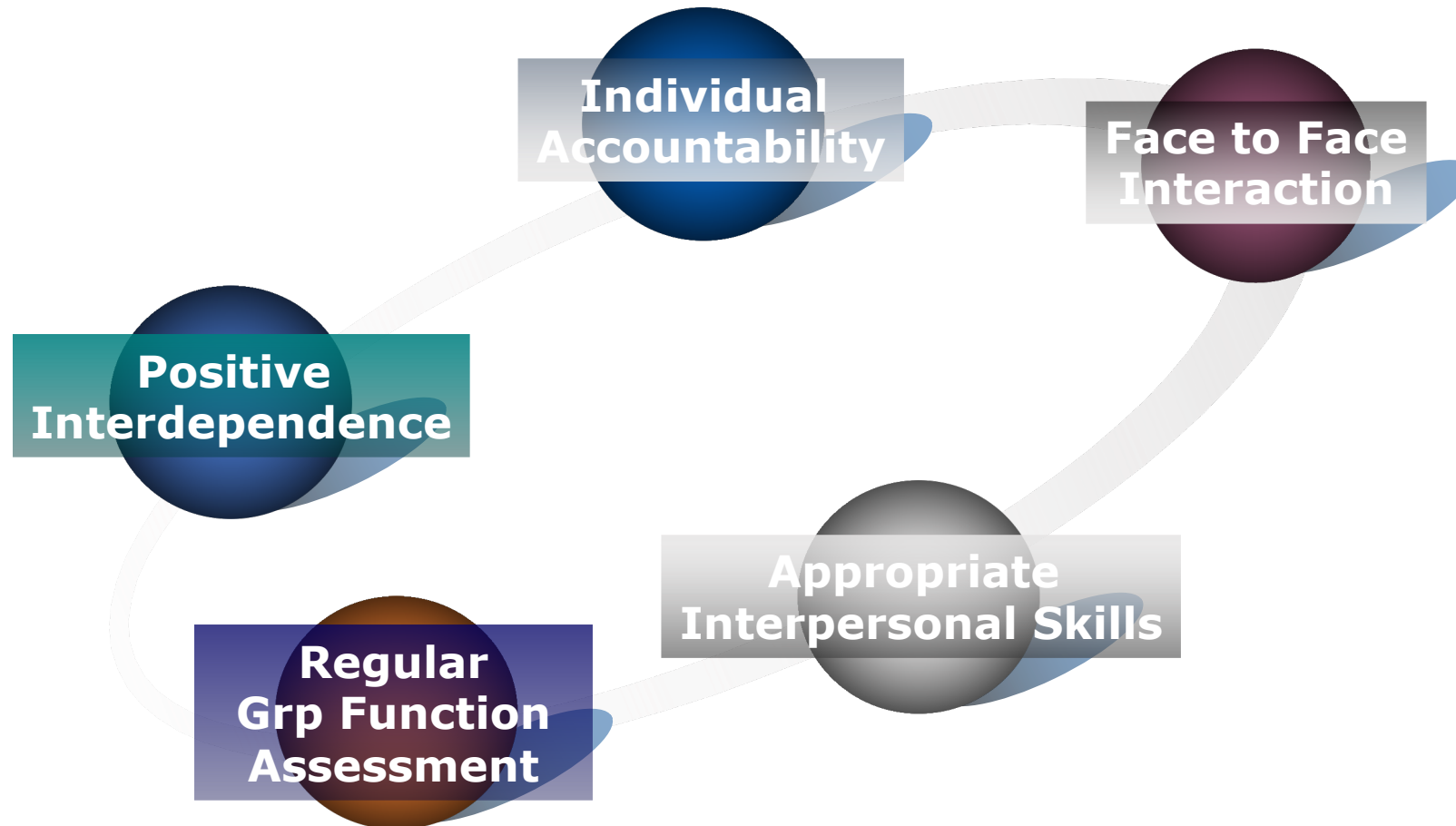


FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

COOPERATIVE LEARNING (CL)



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Cooperative Learning Structures:

- **Informal CL Structure**
- **Formal CL Structure**
- Informal CL Structure - involve very little structure (typically small, short term, ad hoc groups); commonly used in predominately lecture classes
- Formal CL Structure - can be used in content intensive classes where the mastery of conceptual or procedural material is essential; however, many faculty find it easier to start in recitation or laboratory sections or design project courses.



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Group Activities:

- ❖ Brainstorm
- ❖ Opening Question
- ❖ Introductory think pair share
- ❖ Note taking pairs
- ❖ In-class Teams
- ❖ Think Pair Share
- ❖ Note-checking
- ❖ Guided Reciprocal Peer Questioning
- ❖ TAPPS (Thinking Aloud Pair Problem-Solving)
- ❖ Pair Composition
- ❖ Pair Testing
- ❖ Individual & Pair Testing
- ❖ Question and Answer Pairs

Individual Activities (Intra-cooperative)

- ❖ Focused Listing
- ❖ Reflection
- ❖ Two-minute paper
- ❖ One Final Question



FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

Various forms of formal cooperative learning:

- **THE JIGSAW METHODS** (Aronson et al 1978)
- **JIGSAW II** (Slavin)
- **WITHIN-TEAM JIGSAW**
- **CONSTRUCTIVE CONTROVERSY** (Johnson & Johnson)
- **STUDENT TEAM - ACHIEVEMENT DIVISIONS (STAD)** (Slavin 1980)
- **TEAMS - GAMES - TOURNAMENTS (TGT)** (DeVries & Slavin 1978)
- **TEAM ASSISTED INDIVIDUALIZATION or TEAM ACCELERATED LEARNING (TAI)** (Slavin 1985)
- **GROUP INVESTIGATION (GI)** (Sharan et al 1984)



FSSH UTM

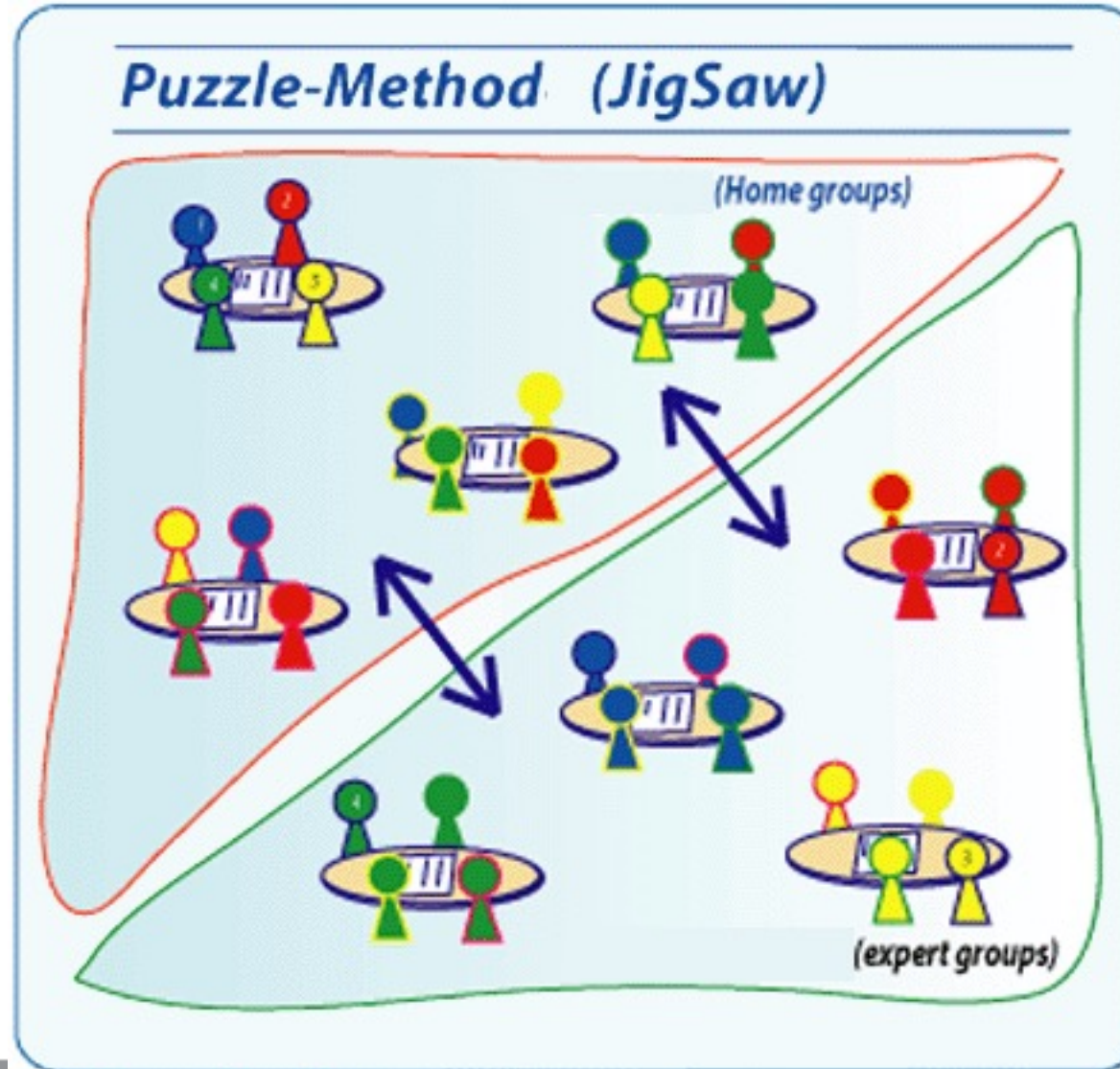
PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

FORMAL CL - JIGSAW METHODS



Students become "experts" on a concept and are responsible for teaching it to the other group members



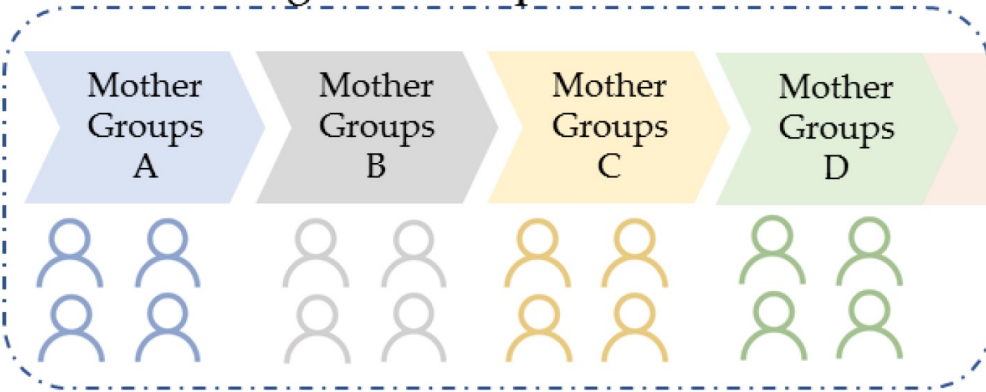
FSSH UTM

PROFESOR DR ZAIDATUN BINTI TASIR

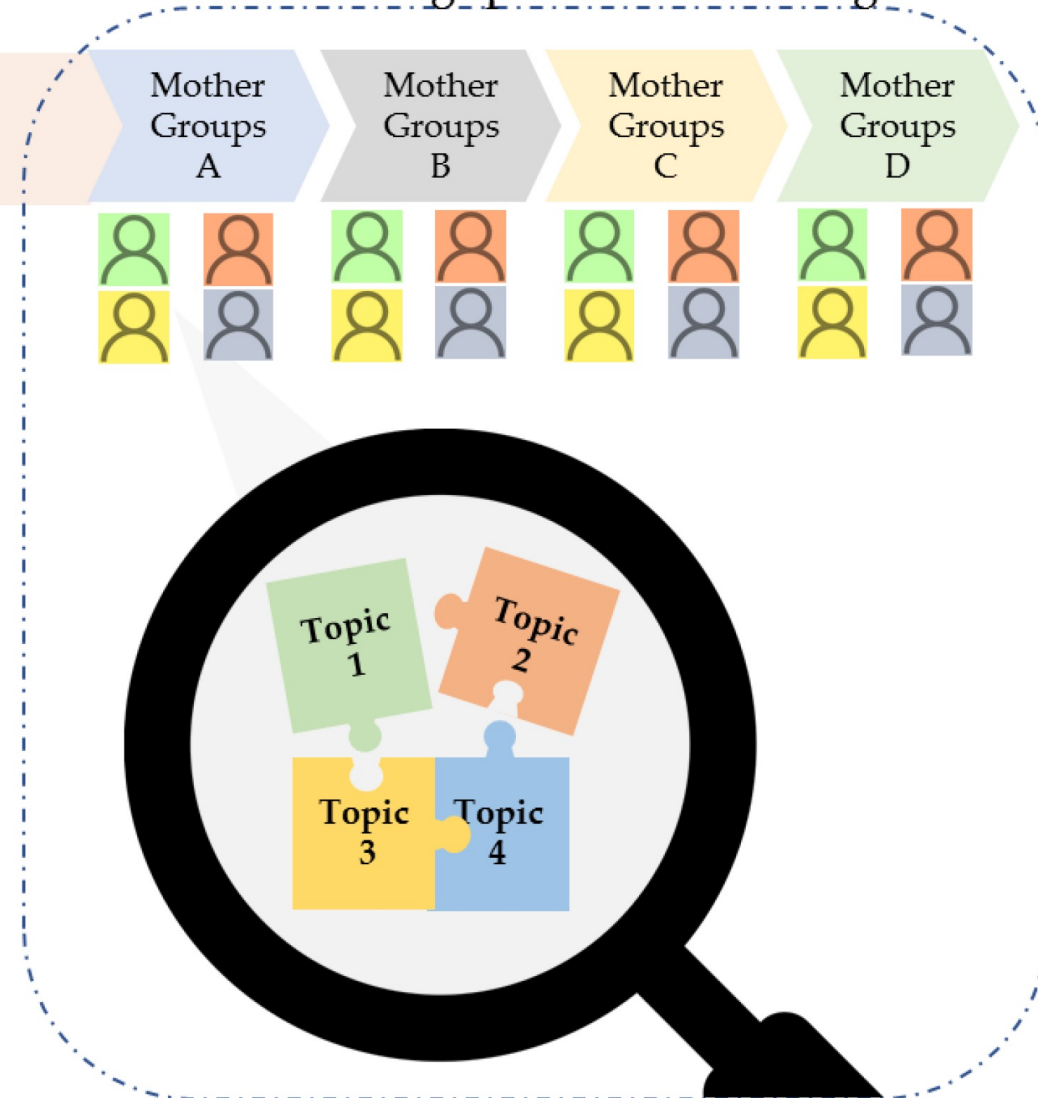
DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN

The Jigsaw Method

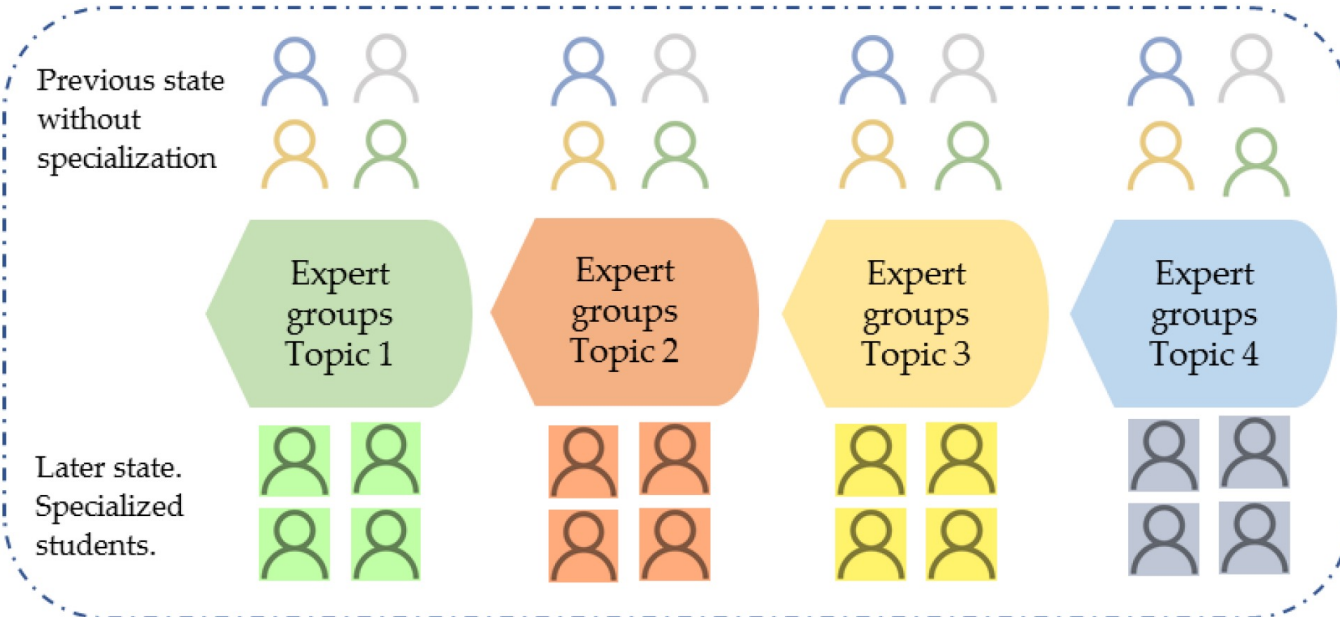
Phase 1. Original Group



Phase 3. Sharing specialist knowledge

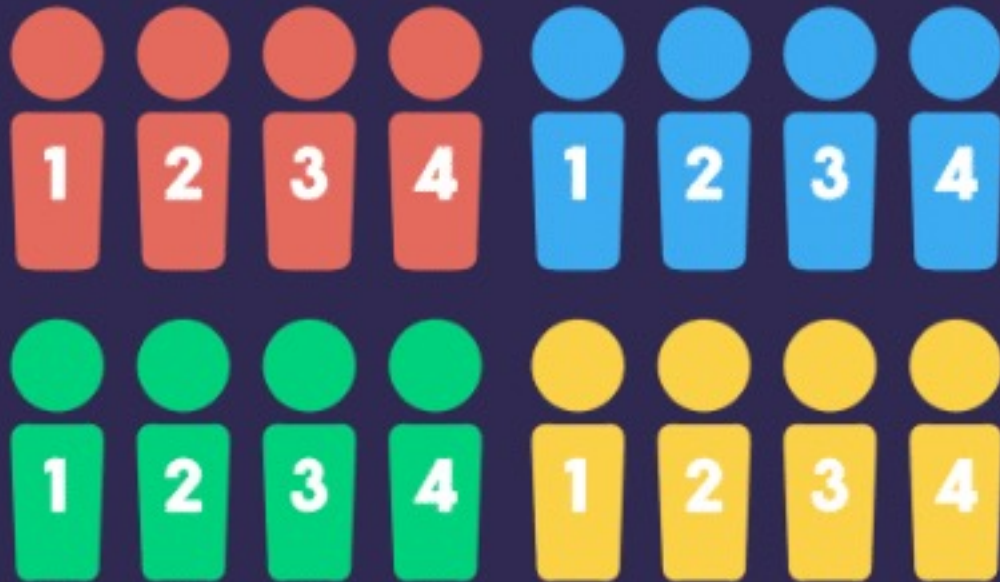


Phase 2. Expert groups



Jigsaw Groups

Each group contains
all pieces of the puzzle.



Expert Groups

Each group contains
only one piece of the puzzle.



THANK
YOU



PROFESOR DR ZAIDATUN BINTI TASIR

DEKAN, FAKULTI SAINS SOSIAL DAN KEMANUSIAAN