



Om leg-baseret undervisning i makerspace og 'metronomen' modellen som didaktisk tilgang

Makerspaces som lærings- laboratorier

Lektor Ph.D Sune Gudiksen &
Studie adjunkt, Ph.D Sofie Kinch

Lab for Play & Design er partner i
udviklingsprojektet med Favrskov
Kommune og 13 folkeskoler

Støttet af Villumfonden. 2020-2023



Undrevisning

Projektets vision er at bevare og nære den nysgerrighed, som børn kommer ind i skolen med, ved at lade eleverne møde øjeblikke med undren og nærvær, hvor de glemmer tid og sted.

Igennem design og leg adresserer vi problem baseret læring i (og udenfor) makerspace





Vi bringer legedisciplinen ind i projektet på 3 niveauer:

Dannelses perspektiv:
Digital fantasi, og A'ets berettigelse i STEAM

Didaktisk tilgang:
Metronomen model: mellem emergens og progression

Procesorienteret design model med fokus på undring og "tinkering"

Legens væsen og fantasiens rolle bygger på “hvad nu hvis...”
Vi bygger på Rikke Toft Nørgaard, lektor v Aarhus Universitets
og vil give digital fantasi mere plads i makerspace...

STEM Tilgang

- Teknologi forståelse
- Computational tankegang
- Design Factions
- Teknologisk dømmekraft
- Digital umyndiggørelse

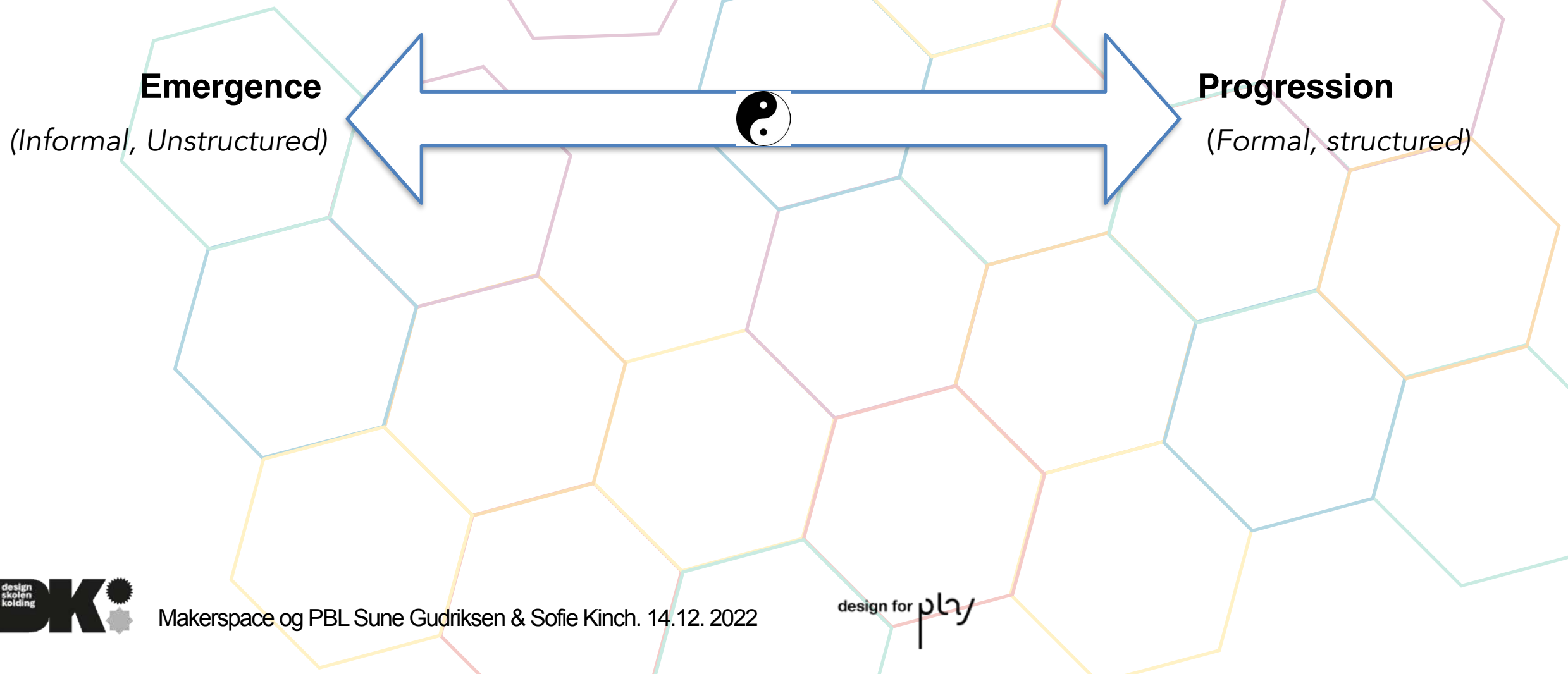
ART Tilgang

- Teknologifantasi
- Computational kreativitet
- Design Fictions
- Teknologisk udtryksfuldhed
- Digital mægtiggørelse



Dialectic poles in play, games and learning

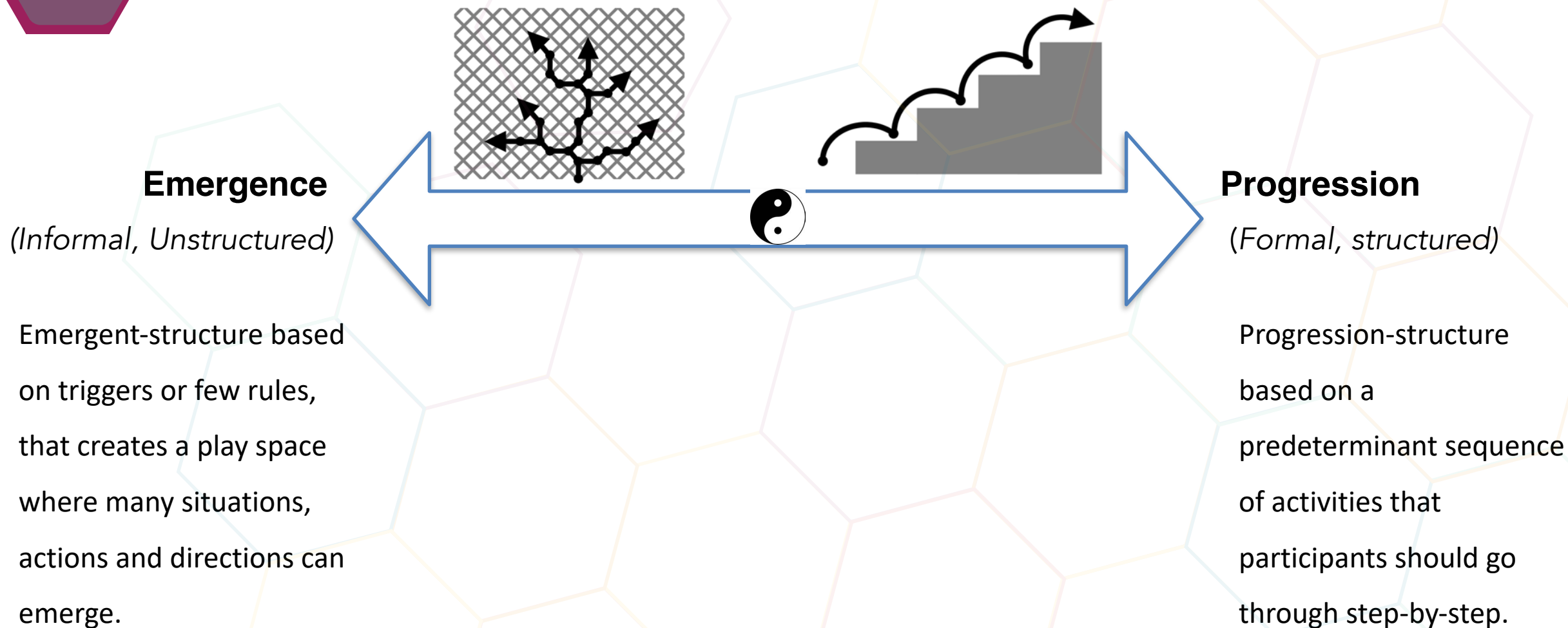
(Gudiksen & Inlove 2018; Gudiksen 2020)





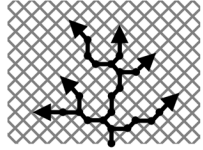
Dialectic poles in play, games and learning

(Gudiksen & Inlove 2018; Gudiksen 2020)



Poles in Play, Games and Learning

Tilgang:
Metronomen



Emergence



Progression

Unpredictability

Predictability

Chaos

Repetition

Long-term

Short-term

Participant-driven

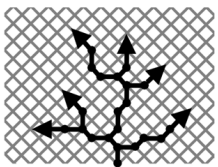
Instructor-driven

Emergent purpose

Predefined purpose

Complexity theory

Behaviorism



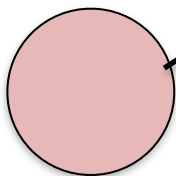
Emergence

Metronomen

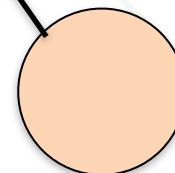
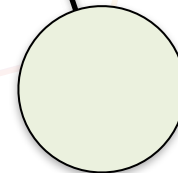
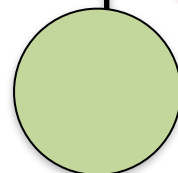
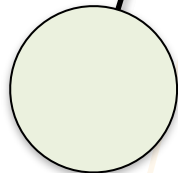
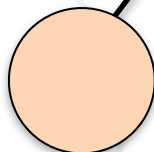
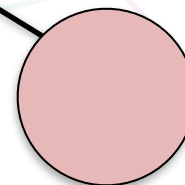


Progression

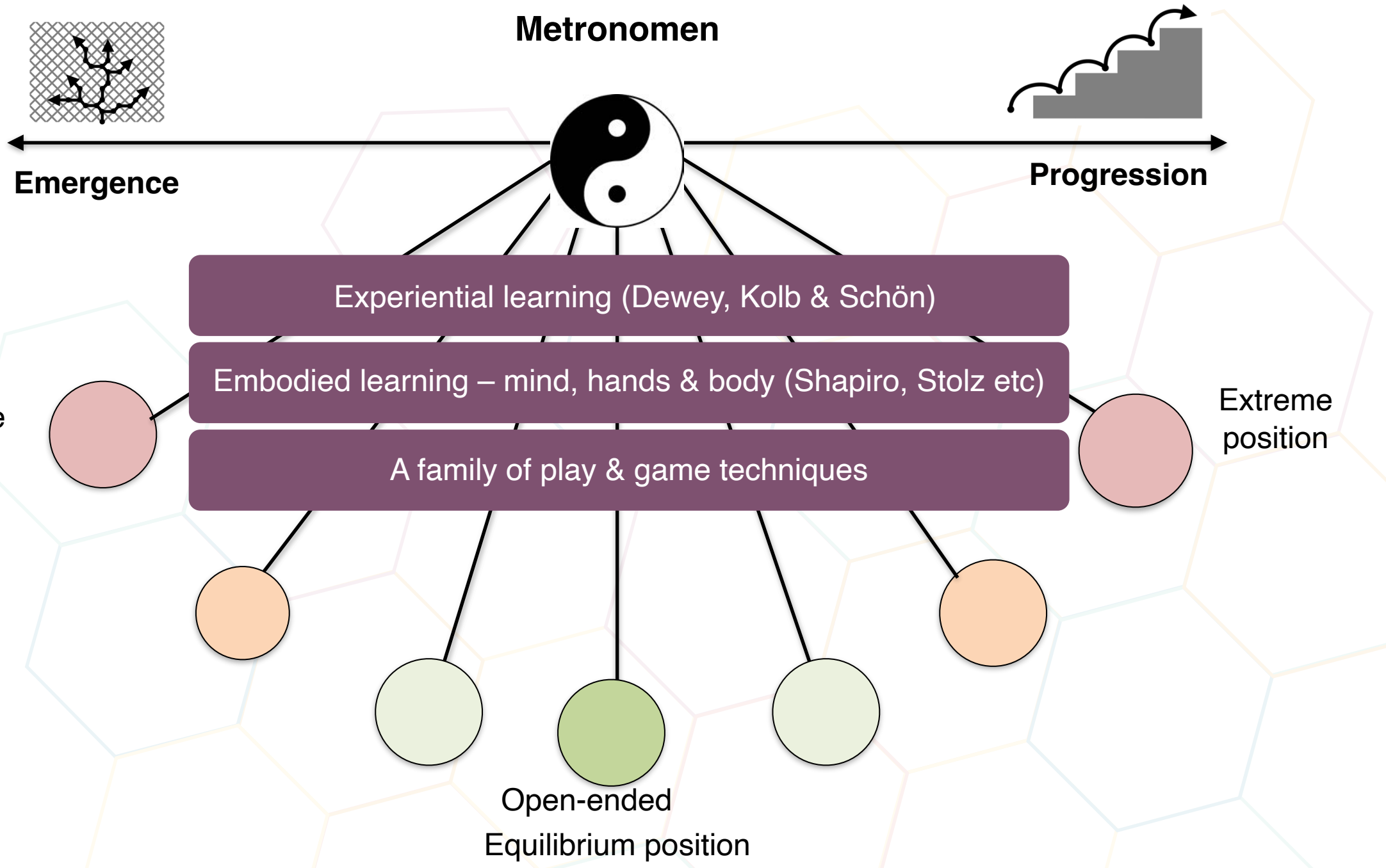
Extreme position

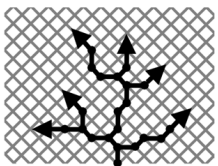


Extreme position



Open-ended
Equilibrium position





Metronomen



Emergence

Progression



Experiential learning (Dewey, Kolb & Schön)

Embodied learning – mind, hands & body (Shapiro, Stolz etc)

A family of play & game techniques

Indskydelse fra omgivelser

Instruktionsspil

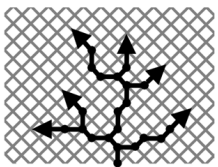
Maker Spaces
Metaforisk leg
Triggers

Demonstrationer &
Simuleringer

Improvisation
Metaforisk leg

Rolleskifte
Forum teater

Dilemmaer med
benspænd

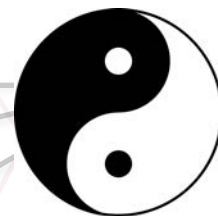


Metronomen



Emergence

Progression



Illeris 2003

Implicit, invisible learning

Categories to the left tend to be described as playful experiences/learning

Illeris 2003

Explicit, visible learning

Categories to the right tend to be described as game-based experiences/learning

Indskydelse fra omgivelser

Instruktionsspil

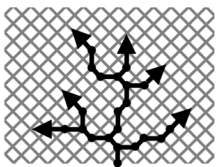
Maker Spaces
Metaforisk leg
Triggers

Demonstrationer
&
Simuleringer

Improvisation
Metaforisk leg

Rolleskifte
Forum teater

Dilemmaer med
benspænd



Metronomen



Emergence

Progression

Fluctuations & Rhythms

Indskydelse fra omgivelser

Maker Spaces
Metaforisk leg
Triggers

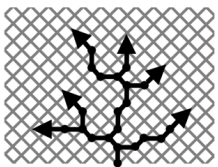
Improvisation
Metaforisk leg

Dilemmaer med
benspænd

Rolleskifte
Forum teater

Demonstrationer
&
Simuleringer

Instruktionsspil



Metronomen



Emergence

Progression

- Som Planlægningsværktøj – når flere undervisningsaktiviteter følger efter hinanden
- Som det hurtige orienteringsværktøj – har jeg forskellige aktiviteter i min undervisningsgang eller undervisningsforløb
- Som eksempelværktøj eller database til at samle op løbende

Proces: Design model

MAKER'N

en designmodel

EVALUERING



UNDERSØGELSE



PROBLEM



IDÉUDVIKLING



PROTOTYPE

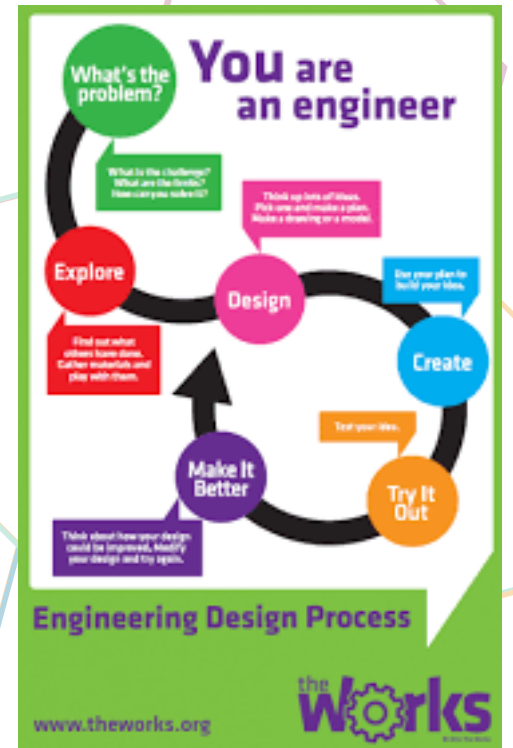
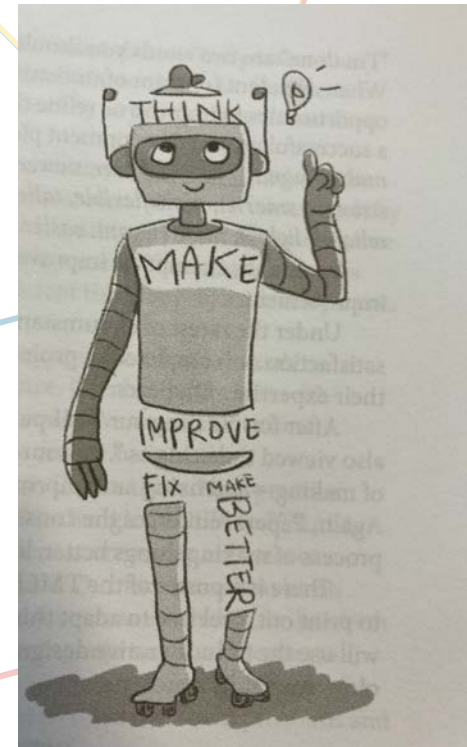
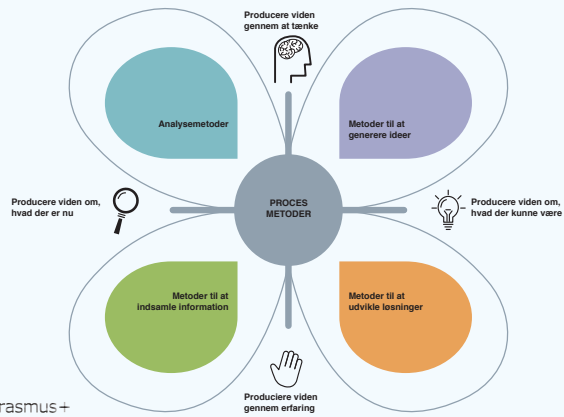


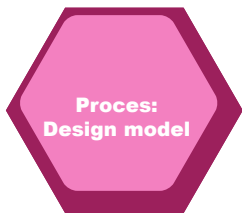
NOGET
STÅR
DET!

PITCH



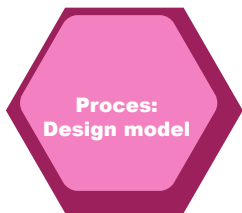
FUTURE TEACHING værktøj: 5 kategorier og 42 metoder 2. Proces model



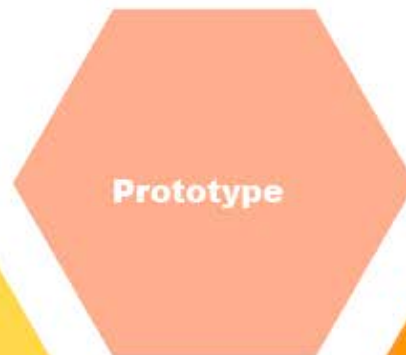


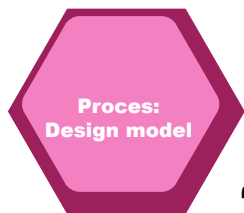
Designmodel med undring i fokus



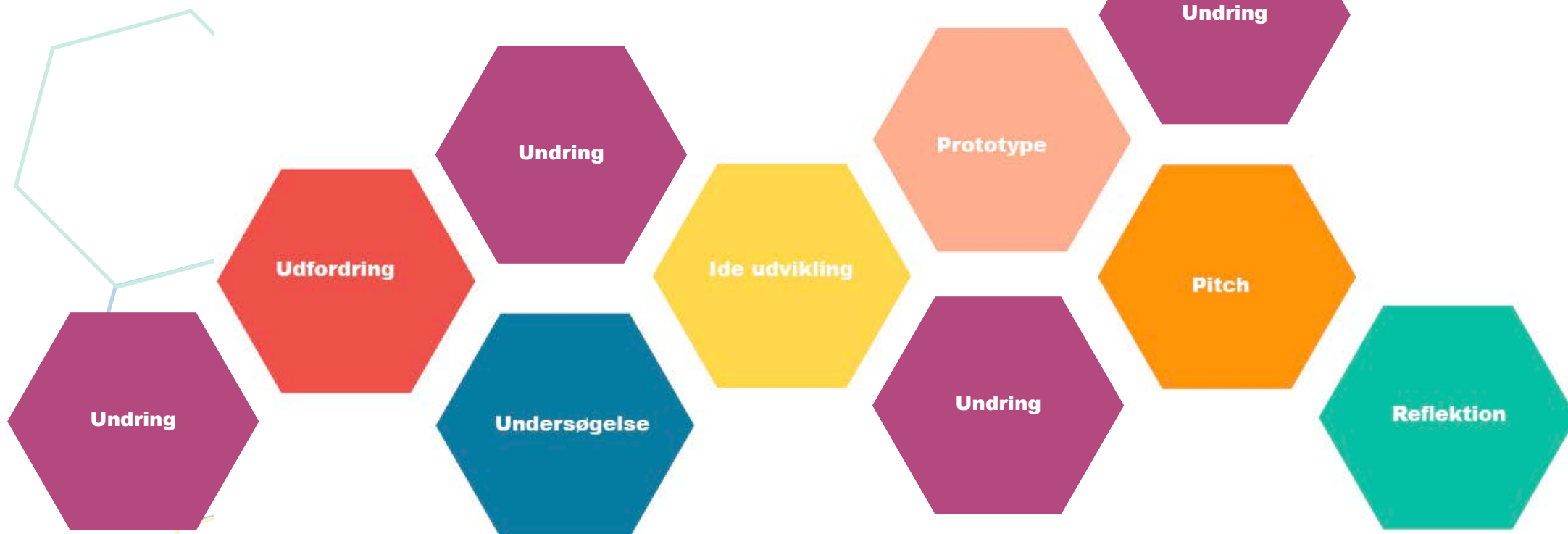


Fysiske brikker: Formidling af fleksible og afgrænsede design forløb

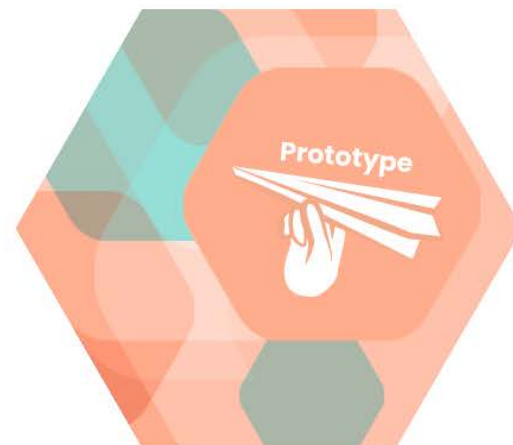


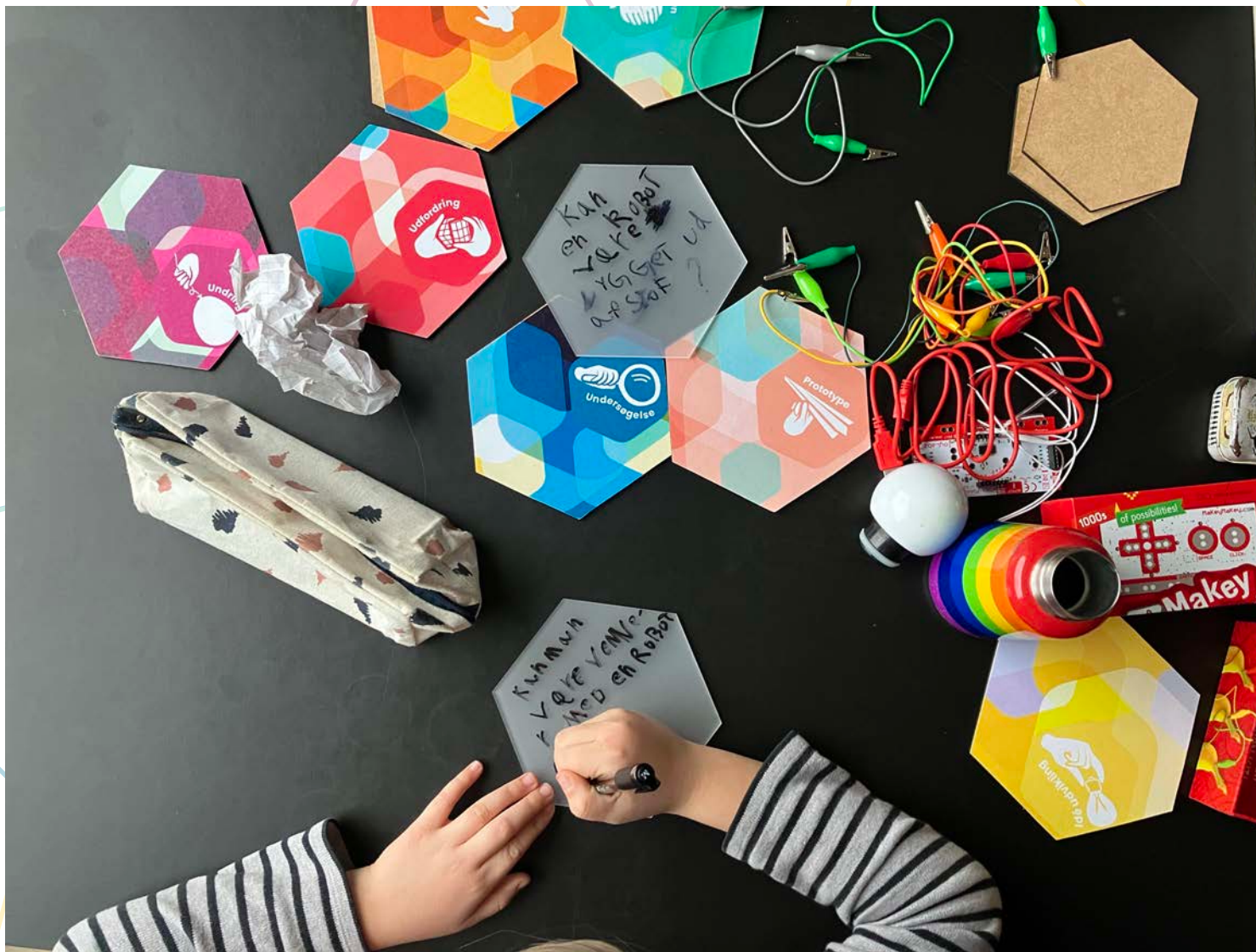


“Undringen” er et centralt element, der kan relatere sig til alle 6 faser.



Proces:
Design model



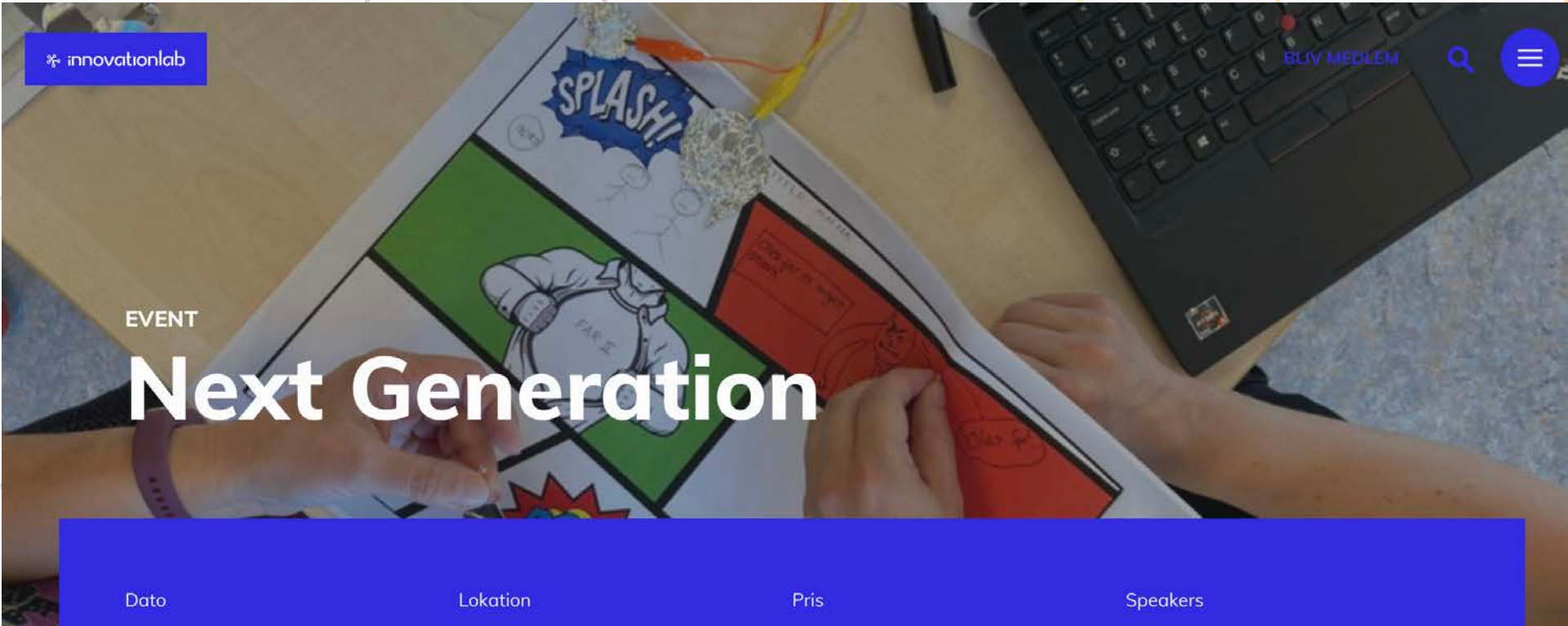


Afrunding



Konceptet understøttes af en video platform

Et metodekatalog, der løbende opdateres med læringsforløb publiceres på YouTube.





EVENT

Next Generation

Dato	Lokation	Pris	Speakers
9 February 2023 09:30 - 14:30	Designskolen Kolding Ågade 10	745 DKK inkl. moms	Sofie Kinch Tore Neergaard Kjellow John Klesner Lis Zacho Louise Overgaard

Kontakt os

