



BØRN OG UNGE
Aarhus Kommune

Min historie med skoleskak





Perspektiver på skoleskak

- Generelt
- Eksempler fra Aarhus

Ten good reasons autistic children can benefit from scholastic chess

Chris Bonnello

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**1: Chess helps with
understanding actions and
consequences.**

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2: Chess forces you to see the other person's perspective.



3: Chess teaches you how to handle anxiety.



4: Chess offers you opportunities to make friends.

Generic Primary

GROUP STAGE Weeks 1 – 5

- Everybody plays against the others in their group. Top two finishers progress to Gold Finals, third and fourth to Silver Finals, fifth and sixth to Bronze Groups.
- If you cannot make chess club on the day, it is your responsibility to play your match before the next round begins. I am usually available if you wish to play during lunchtimes.
- 1 point will be given for a win, 0.5 each for a draw, 0 for a loss.
- If people finish level on points, whoever won the match between them will finish higher. If the two players drew, then they will need to play again.

Standings after 0 weeks

Group A

	P	W	D	L	Pts
[seed1]	0	0	0	0	0
[seed6]	0	0	0	0	0
[seed12]	0	0	0	0	0
[seed14]	0	0	0	0	0
[seed20]	0	0	0	0	0
[seed22]	0	0	0	0	0

Group B

	P	W	D	L	Pts
[seed4]	0	0	0	0	0
[seed7]	0	0	0	0	0
[seed9]	0	0	0	0	0
[seed15]	0	0	0	0	0
[seed17]	0	0	0	0	0
[seed23]	0	0	0	0	0

Group C

	P	W	D	L	Pts
[seed2]	0	0	0	0	0
[seed8]	0	0	0	0	0
[seed10]	0	0	0	0	0
[seed13]	0	0	0	0	0
[seed18]	0	0	0	0	0
[seed24]	0	0	0	0	0

Group D

	P	W	D	L	Pts
[seed3]	0	0	0	0	0
[seed5]	0	0	0	0	0
[seed11]	0	0	0	0	0
[seed16]	0	0	0	0	0
[seed19]	0	0	0	0	0
[seed21]	0	0	0	0	0

School Chess Tournament

Group A Week 1, 2 nd ?						Group B Week 1, 2 nd ?					
[seed1]	0	0	0	[seed14]		[seed4]	0	0	[seed15]		
[seed6]	0	0	0	[seed20]		[seed7]	0	0	[seed17]		
[seed12]	0	0	0	[seed22]		[seed9]	0	0	[seed23]		
Week 2, 2 nd ?						Week 2, 2 nd ?					
[seed22]	0	0	0	[seed1]		[seed23]	0	0	[seed4]		
[seed14]	0	0	0	[seed6]		[seed15]	0	0	[seed7]		
[seed20]	0	0	0	[seed12]		[seed17]	0	0	[seed9]		
Week 3, 2 nd ?						Week 3, 2 nd ?					
[seed1]	0	0	0	[seed20]		[seed4]	0	0	[seed17]		
[seed6]	0	0	0	[seed12]		[seed7]	0	0	[seed9]		
[seed14]	0	0	0	[seed22]		[seed15]	0	0	[seed23]		
Week 4, 2 nd ?						Week 4, 2 nd ?					
[seed12]	0	0	0	[seed1]		[seed9]	0	0	[seed4]		
[seed22]	0	0	0	[seed6]		[seed23]	0	0	[seed7]		
[seed14]	0	0	0	[seed12]		[seed15]	0	0	[seed23]		
Week 5, 2 nd ?						Week 5, 2 nd ?					
[seed1]	0	0	0	[seed6]		[seed4]	0	0	[seed7]		
[seed12]	0	0	0	[seed14]		[seed9]	0	0	[seed15]		
[seed20]	0	0	0	[seed22]		[seed17]	0	0	[seed23]		
Group C Week 1, 2 nd ?						Group D Week 1, 2 nd ?					
[seed2]	0	0	0	[seed13]		[seed3]	0	0	[seed16]		
[seed8]	0	0	0	[seed18]		[seed5]	0	0	[seed19]		
[seed10]	0	0	0	[seed24]		[seed11]	0	0	[seed21]		
Week 2, 2 nd ?						Week 2, 2 nd ?					
[seed24]	0	0	0	[seed5]		[seed21]	0	0	[seed3]		
[seed13]	0	0	0	[seed18]		[seed16]	0	0	[seed5]		
[seed18]	0	0	0	[seed10]		[seed19]	0	0	[seed11]		
Week 3, 2 nd ?						Week 3, 2 nd ?					
[seed2]	0	0	0	[seed18]		[seed3]	0	0	[seed19]		
[seed10]	0	0	0	[seed13]		[seed16]	0	0	[seed5]		
[seed13]	0	0	0	[seed24]		[seed19]	0	0	[seed11]		
Week 4, 2 nd ?						Week 4, 2 nd ?					
[seed10]	0	0	0	[seed2]		[seed11]	0	0	[seed3]		
[seed24]	0	0	0	[seed13]		[seed21]	0	0	[seed5]		
[seed13]	0	0	0	[seed18]		[seed16]	0	0	[seed19]		
Week 5, 2 nd ?						Week 5, 2 nd ?					
[seed2]	0	0	0	[seed8]		[seed3]	0	0	[seed5]		
[seed10]	0	0	0	[seed13]		[seed11]	0	0	[seed16]		
[seed18]	0	0	0	[seed24]		[seed19]	0	0	[seed11]		

Generic Primary

FINAL ROUND Weeks 6 – 8

Bronze Leagues
All players play three matches.

Group A

	W	D	L	Pts
Fifth, Group A	0	0	0	0
Fifth, Group B	0	0	0	0
Sixth, Group C	0	0	0	0
Sixth, Group D	0	0	0	0

Group B

	W	D	L	Pts
Fifth, Group C	0	0	0	0
Fifth, Group D	0	0	0	0
Sixth, Group A	0	0	0	0
Sixth, Group B	0	0	0	0

Week 6, 2 nd ?			
5A	0	0	0
5B	0	0	0

Week 7, 2 nd ?			
5A	0	0	0
5B	0	0	0

Week 8, 2 nd ?			
5A	0	0	0
5B	0	0	0

Week 6, 2 nd ?			
5C	0	0	0
5D	0	0	0

Week 7, 2 nd ?			
5C	0	0	0
5D	0	0	0

Week 8, 2 nd ?			
5C	0	0	0
5D	0	0	0

Silver Finals

Week 6 (2 nd ?) 9 th – 12 th			
Third, Group A			
Fourth, Group C			

Week 7 (2 nd ?)			
Third, Group B			
Fourth, Group D			

Week 8 (2 nd ?)			
Third, Group C			
Fourth, Group A			

Silver Final

Week 6 (2 nd ?) 9 th – 12 th			
Winner, QF1			
Winner, QF2			

Week 7 (2 nd ?)			
Winner, QF3			
Winner, QF4			

Week 8 (2 nd ?)			
Winner, SF1			
Winner, SF2			

School Chess Tournament

GOLD FINALS

Week 6 (2nd ?)
1st – 8th

Winner, Group A

Runner-up, Group C

Winner, Group B

Runner-up, Group D

Winner, Group C

Runner-up, Group B

Winner, Group D

Runner-up, Group A

Week 7 (2nd ?)
1st – 4th

Winner, QF1

Winner, QF2

Winner, QF3

Winner, QF4

3rd – 4th

Loser, SF1

Loser, SF2

5th – 6th

Loser, QF1

Loser, QF2

7th – 8th

Loser, QF3

Loser, QF4

9th – 10th

Loser 3

Loser 4

11th – 12th

Loser, SF1

Loser, SF2

13th – 14th

Winner 3

Winner 4

Loser 3

Loser 4

15th – 16th

Loser 3

Loser 4

17th – 18th

Loser 3

Loser 4

19th – 20th

Loser 3

Loser 4

21st – 22nd

Loser 3

Loser 4

23rd – 24th

Loser 3

Loser 4

Week 7 (2nd ?)
1st – 4th

Winner, QF1

Winner, QF2

Winner, QF3

Winner, QF4

3rd – 4th

Loser, SF1

Loser, SF2

5th – 6th

Loser, QF1

Loser, QF2

7th – 8th

Loser, QF3

Loser, QF4

9th – 10th

Loser 3

Loser 4

11th – 12th

Loser, SF1

Loser, SF2

13th – 14th

Winner 3

Winner 4

Loser 3

Loser 4

15th – 16th

Loser 3

Loser 4

17th – 18th

Loser 3

Loser 4

19th – 20th

Loser 3

Loser 4

21st – 22nd

Loser 3

Loser 4

23rd – 24th

Loser 3

Loser 4

25th – 26th

Loser 3

Loser 4

27th – 28th

Loser 3

Loser 4

29th – 30th

Loser 3

Loser 4

31st – 32nd

Loser 3

Loser 4

33rd – 34th

Loser 3

**5: Chess teaches you
to take responsibility.**

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6: Chess teaches emotional control.

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**7: Chess can help you play
to your strengths.**

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8: Chess can help you be SEEN playing to your strengths!

Adult: “This child has special needs. They won’t achieve anything. They can’t.”

Adult: **Doesn’t provide learning opportunities for the child, because they don’t see the point.**

Child: **Doesn’t learn, because no opportunities were given to them.**

Years pass.

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Adult: “See what I mean? This child has achieved nothing. What a shame their special needs stopped them from learning.”

9: Chess can help with your self-esteem.

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10: Chess is great for your confidence!



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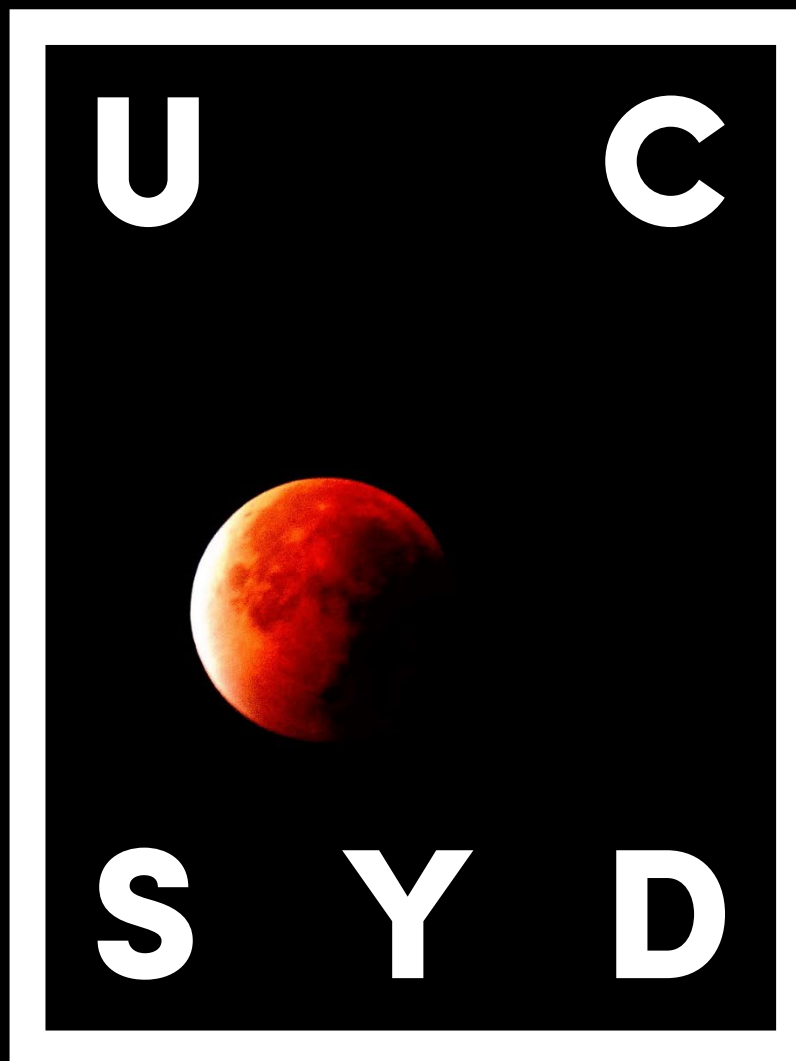
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Forskningsprogram: Dagtilbud og skole

Forskningsspor: Inklusion og eksklusion

Forskning Innovation Udvikling Videreuddannelse

Nationalt Videncenter for Inklusion og Eksklusion



Dansk Skoleskak National Vidensdag den 15.5.2020

”Skoleskak for alle – Hvordan styrker skoleskak personlige-, sociale- og kognitive kompetencer samt selvværd og faglig dygtighed?

Docent Christian Quvang



Introduktion

”Man kan slå hinanden, uden at det gør ondt” – citat dreng fra 4.kl.

Om processen fra at vide noget – til at vide mere om SFA

Baggrund:

Citat fra ansøgning SFA til EGMONT om mål
‘Forandringsmodel - fra udfordring til virkning’
‘De fem – kompetencerne’ i SFA

Forforståelse:

Fra at være nysgerrig og se på, hvad der er gået godt, og hvad der måske kan gøres bedre
- Baggrundsviden via diverse SFA platforme og samtaler med SFA ledelsen’

Forskning;

Til at blive klogere og kunne sige, at nu ved vi, hvad der ‘virker’ som ‘aktive elementer og ingredienser’
- Data fra praksis af forskellig karakter, der kan ændre forforståelse til forståelse og ny viden

Præcisering:

Der er med denne forskning ikke tale om en S – R kvantitativ effektmåling, der er tale om en kvalitativ sandsynlighedsvurdering med dokumentation og eksemplificering af ‘aktive elementer og ingredienser’ - set fra børns, underviseres og lederes aktørperspektiver -suppleret ‘udefra’ med et analytisk forskerblik



Kvantitativ/Kvalitativ analyse

DSS 2018 & 2019 målinger

Skakundervisere

Fokus: generel praksis

Forskningsspørgsmål

Observationer

Situational Analysis (SA)

Fokus: SFA praksisformer

"Hvilke aktive elementer og ingredienser i form af pædagogiske intentioner og didaktiske tilgange i aktiviteten 'Skoleskak for alle' bidrager til udvikling af deltagernes kognitive-, personlige- og sociale kompetencer og selvværd?"

Kvalitativ analyse I

Individuel & Fokusgruppeinterview

Skakundervisere

Fokus: Kompetencer

Kvalitativ analyse II

Fokusgruppeinterview

Elever og Skakundervisere

Fokus: Videnkategorier

”Det handler om at have det sjovt og ikke at vinde”.

– citat dreng fra 4.kl.

- Analysen bygger på 337 *påbegyndte*- og heraf 190 (2018) + 93 (2019) - alt 283 *hele besvarelser*
- En direkte sammenligning mellem 2018 og 2019 data er ikke mulig pga. ændring i svarkategorier

I 0 målingen eller survey 2018 er der først og fremmest grund til at opholde sig ved det forhold, at der er tale om en signifikant tendens i forhold til to vurderingskategorier, der i særlig grad anvendes af respondenterne: ***’At respektere forskellighed’*** og ***’At vise empati’***. Begge disse kategorier vedrører skakspillets grundelementer i forhold til skaketik og skakadfærd. Signifikansen her kunne indikere, at skakspillets kvaliteter netop på dette felt er noget, skakeleverne har taget til sig. Hertil kommer, at vurderingskategorien ***’At italesætte sig selv positivt’*** på 3. årgang og i overbygningens 7. – 10. kl. også anvendes hyppigt i ratingen af skakelevernes opnåede kompetencer i ‘Skoleskak for alle’.

I survey 2019 fremgår det, at når indsatsen ‘Skoleskak for alle’ vurderes, synes der at være en signifikant tendens i forhold til at fremhæve kompetencerne ***’Problemløsning’***, ***’Analytisk tilgang’***, ***’Koncentration’***, ***’Selvkontrol’*** og ***’Tålmodighed’***, der alle rates forholdsmæssigt højt. Disse kompetencer relaterer sig til opmærksomhed, kognitiv kontrol og processering i spilleprocessen.

”Det handler om at have det sjovt og ikke at vinde”.

– citat dreng fra 4.kl.

Analysen vedrører respondenternes svar på: *”Hvor oplever du, at SFA -indsatsen har gjort den største forskel for dine elever?” i survey 2019.* Besvarelserne er bearbejdet og sammenfattet til:

- At kategorien ***’Kompetencer i et individuelt perspektiv’*** af skakunderviserne vurderes at have udviklet sig positivt, der på flere felter vedrører kognitive kompetencer
- At kategorien ***’Kompetencer i et socialt perspektiv’*** af skakunderviserne vurderes at være blevet påvirket i en positiv retning, der på flere felter vedrører inklusion i flere dimensioner
- At kategorien ***’Spillemæssigt’*** af skakunderviserne vurderes til at styrke en række brede kompetencer og karakteristika i skakspillet, der vedrører både sociale og individuelle aspekter
- At kategorien ***’Didaktiske greb’*** af skakunderviserne vurderes at have nogle særlige kvaliteter med betydning for, såvel det faglige som det sociale kompetencefelt.

Kvalitativ analyse I

Individuel & Fokusgruppeinterview

Skakundervisere

Fokus: Kompetencer

"Man bliver bedre til at huske ting og til at tænke på, hvad der sker, hvis jeg gør det eller noget andet, så man lærer at tænke i forvejen".

- Citat dreng

Hver enkelt af de fem områder Kognitive-, Personlige-, Sociale- og Faglige kompetencer samt Selvværd har fået en række underkategorier, og analysen har fokus på at verificere de ***'aktive elementer og ingredienser'*** i SFA baseret på data fra interviews med skakunderviserne.

NB: Der er yderligere i forskningsprocessen tilføjet et 5. tema vedr. konteksten: Skolen og samfundet

Det er blevet til 25 underkategorier i alt, hvor skakunderviserne i interview har forholdt sig til de 20 På baggrund af de 25 indikatorer fokuserer analysen på ***'aktive elementer og ingredienser'*** i SFA

Her gives eksempler på ***'aktive elementer og ingredienser'*** vedrørende temaet 'Selvværd':

Ser sig selv som en resurse i forhold til andre, E1

- Indikator: *'at få lov til at opleve at være god styrker selvopfattelsen' ...*

Ser andre som en resurse, E2

- Indikator: *'at lære andre at kende i en ny sammenhæng' ...*

Inddrager sig selv i fællesskabet, E3

- Indikator: *'at opdage betydningen af at være uundværlig i fællesskabet' ...*

Inddrager andre i fællesskabet, E4

- Indikator: *'at kunne inddrage andre forudsætter, at man selv har oplevet at blive inddraget' ...*

Kvalitativ analyse II

Fokusgruppeinterview

Elever og Skakundervisere

Fokus: Videnkategorier

”Man samarbejder, og man leger, og hvis man ikke snakker så meget med dem ellers i forvejen, så kan man blive venner og samarbejde”. – Citat dreng

- Praksisfællesskabers betydning for læring og relationer (Wenger, 2004)
- Innovative læringsstrategier og transfer af kompetencer mellem 'settings' (Bronfenbrenner, 2005)
- Motivation i forbindelse med læringsprocesser (Cozolino, 2006, Csikszentmihalyi, 2014)
- Processering af viden og øvelse af rutiner (Illeris, 2015; Albrechtsen, 2019)
- Mening og modstand i narrativer om læring (Bruner, 1999; Horsdal, 2008; Quvang 2016)

Ad) Praksisfællesskabers betydning for læring og relationer (Wenger, 2004)

Keywords: *Perifer legitim deltagelse, Deltagelsesbaner, Tingsliggørelse, Grænser, Rutiner, Identitet*

.... Skakspillet bliver dermed det **grænseobjekt**, der kommer til at forene deltagere i en fælles leg- og læringsaktivitet. I SFA gælder dette især for elever i skolen, der er i periferien af praksisfællesskaber fx grundet en diagnose. Med SFA skabes en **deltagelsesbane** fra **perifer legitim deltagelse** til møder og forbindelser med andre, hvor relationer fortættes i den fordybelsesproces, skaktræning og skakspil er.

- *”Vi spiller nu i frikvarteret med nogen, vi ikke har været sammen med før”.*
- *”Man bliver mere social af at spille sammen og imod, fordi så lærer man dem jo at kende, mens man spiller eller bagefter”.*
- *”På skolernes skakdag hjælper jeg ude i et af værkstederne. Det støtter mine sociale evner, når jeg taler med mange forskellige elever. Har de spørgsmål, kan jeg prøve at svare, så godt jeg kan”.*

Observationer

Situational Analysis (SA)

Fokus: SFA praksisformer

”Det kan være svært at vinde, fordi den anden jo taber”

- Pige 4 klasse

Formål: Egne Observationer for ved selvsyn at få verificeret ‘aktive elementer og ingredienser’ i SFA

Metode: Situationsanalyse; fra ‘messy situational maps’ til ‘ordered situational maps’; alt relevant information er i situationen – også konteksten – i form af menneskelige og ikke- menneskelige data

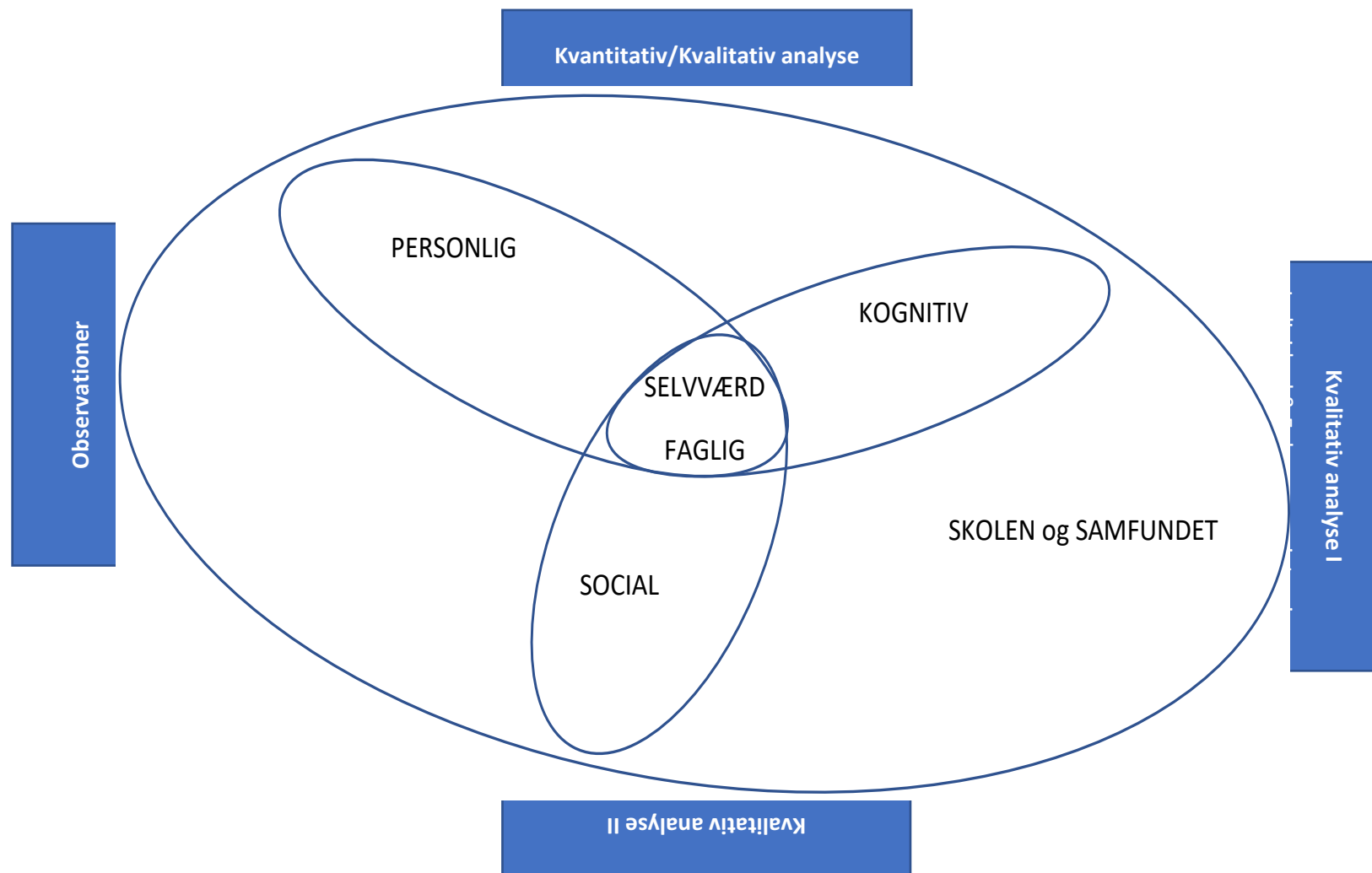
Menneskelig dimension: Individuelle aktører, aktører i praksisfællesskaber, tidsmæssige elementer, ...

Ikke menneskelig dimension: Artefakter, teknologier, ‘tavse’ aktører, diskursiv konstruktion, ...

Eksempel fra analysen: Individuelle aktører og artefakter (MD & IMD)

Som i al anden pædagogisk aktivitet er SFA ‘mødet om det fælles tredje’ baseret på, dels deltagende **individuelle aktører**, dels rammerne for aktiviteten i kraft af de nødvendige **artefakter** og i form af alt fra fx skakbrikker til de fysiske rammer og strukturer omkring aktiviteten.

Aktive ingredienser og elementer bliver i denne kontekst i særlig grad den organisatoriske dimension med den optimale, men nok også nødvendige normering, der er rammen for SFA. Med dette muliggøres individuel støtte og differentiering i forhold til at kvalificere skakmæssige udfordringer, men også motivations aspekter, der kan håndteres bedre fx i 1:1 situationer. Det ‘menneskelige’ perspektiv suppleres af de artefakter, der, set fra en ‘ikke menneskelig dimension’, i vidt omfang er tilgængelige til støtte af SFA aktiviteter. De mange forskellige pædagogiske platforme, der tilbydes skaleleverne i SFA, underbygger de forskellige læringsstile, der er elevernes individuelle læringsstile.



Altså hvad er konklusionen da så?

Generelt er konklusionerne flg.:

- Fra at være 'lidt i udkanten af det hele' bliver SFA en mulig adgang til fællesskaber og venskaber, og det er vel mit hoved fund, at SFA understøtter social inklusion og giver børn med særlige behov/i udsatte positioner og med udfordringer af forskellig slags, adgang til fællesskaber, de ellers ikke ville have fået. Det bekræftes af såvel børnene selv, som skakundervisere og ledere.
- Men det er også selve aktiviteten i SFA, der for disse børn er et brud på de krav de ellers møder i skolen. SFA bliver således en vej til deltagelse i klassen og skolens fællesskaber, når andre i klassen opdager, at man faktisk kan noget. Det booster børns selvværd, inklusion understøttes, og skolen får en særlig profil.
- Dermed bliver SFA en støtte til, som en elev sagde, 'at tænke i forvejen' – altså understøtter SFA netop elevernes evne til at tænke og bedre forstå, hvilke aktive elementer og ingredienser, der skal mobiliseres for at løse en opgave

Mere specifikt i forhold til kompetencer viser de to survey, at flg. kompetencefelter, vurderet af skakundervisere i særlig grad løftes: Problemløsning, Analytisk tilgang, Koncentration, Selvkontrol og Tålmodighed

I forhold de aktive elementer og ingredienser i SFA peger følgeforskningen på betydningen af:

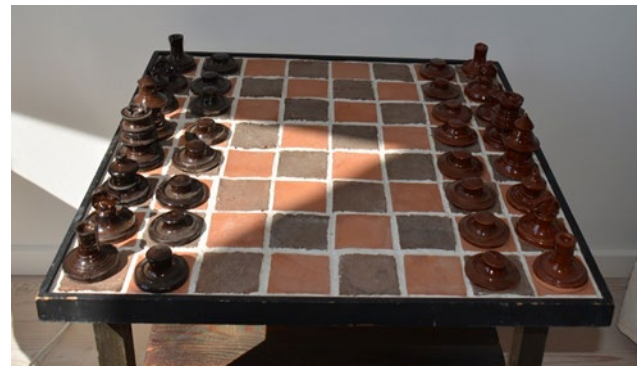
- Den særlige måde aktiviteterne i SFA er tilrettelagt - og organiseret på med fokus på de sociale aspekter fremfor betydningen af at vinde; fx med skiftende makkersammensætning og skift i aktivitetsform
- Betydningen af hele tiden at tale om, hvad der skete, og hvorfor der skete netop det i spillet, dermed at skulle reflektere over processen og efterfølgende gøre dette til skakhistorier – lig med: læringsfortællinger
- Den særlige skakkodeks, hvor spillerne hilser på hinanden, har øjenkontakt og siger tak for spil ved at give hinanden hånden og i det hele taget holder skakro, støtter opbygningen af relationer, og bliver en ny praksis, der på nogle skoler nu har bredt sig ind i andre fag og aktiviteter på skolen.

Afrunding

"Den ene vinder og den anden lærer noget" – Carol Meyer, xecutive Director US Chess

Alt på et bræt? Nej, der er ikke plads til alle '64' forslag til *"aktive elementer og ingredienser"* her!

Næste træk: Forslag til den fortsatte praksis og fortælling om SFA:



a1: De fem nedenstående og meget relevante kategorier i SFA skal præciseres og testes i brug for at kunne operationaliseres til at blive målbare, så pædagogiske intentioner og didaktiske tilgange optimeres

- Kognitive kompetencer
- Personlige kompetencer
- Sociale kompetencer
- Faglige kompetencer samt
- Selvværd

b1: En longitudinalundersøgelse eller forløbsundersøgelse ville være en fornuftig investering

a7: De gode fortællinger og narrativer på individ-, klasse-, skole- og kommunalt niveau skal 'ud at gå'

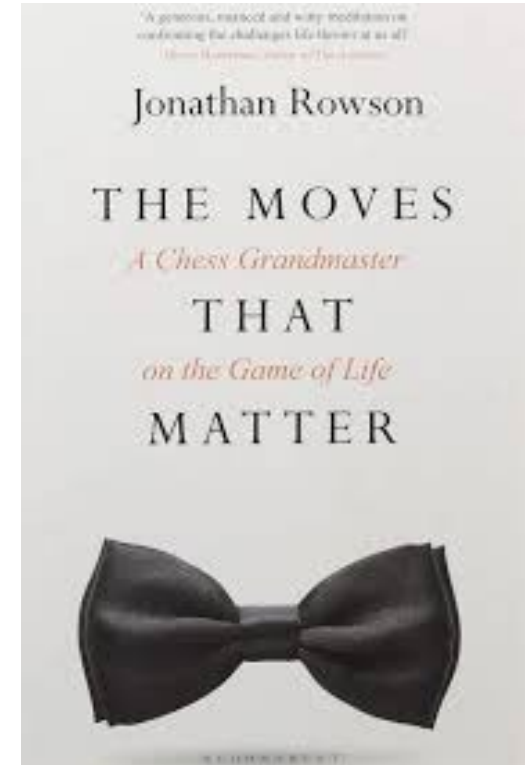
Perspektivet

Dét store spørgsmål; Transfer! Den videre strategi i en fase II: For at støtte transfer skal undervisere mv i andre fag også kende til SFA for at kunne tilrettelægge netop med SFA 'aktive elementer og ingredienser'

Forskningsprogram Skole og undervisning // Inklusion og eksklusion // F I V U // Nationalt Videncenter for Inklusion og Eksklusion // www.nvie.dk

Jonathan Rowson*

“It would be asking too much of chess to think of it as a key to creating a new civilization, but the game can help us improve the relationship between mind and world in ways that are not trivial. The game serves to highlight perspectives that can transform our understanding of how we might think more clearly and wisely, for instance through ecological perception, but also related notions like systems thinking, learning to love mistakes, noticing our patterns of attention, our automaticity and appreciating the importance of unlearning”.



* Rowson, J. (2019) The Moves That Matter – A Chess Grandmaster on the Game of Life. London. Bloomsbury. (Side 105)

Tak for at I lyttede og fulgte med
Spørgsmål og kommentarer om lidt

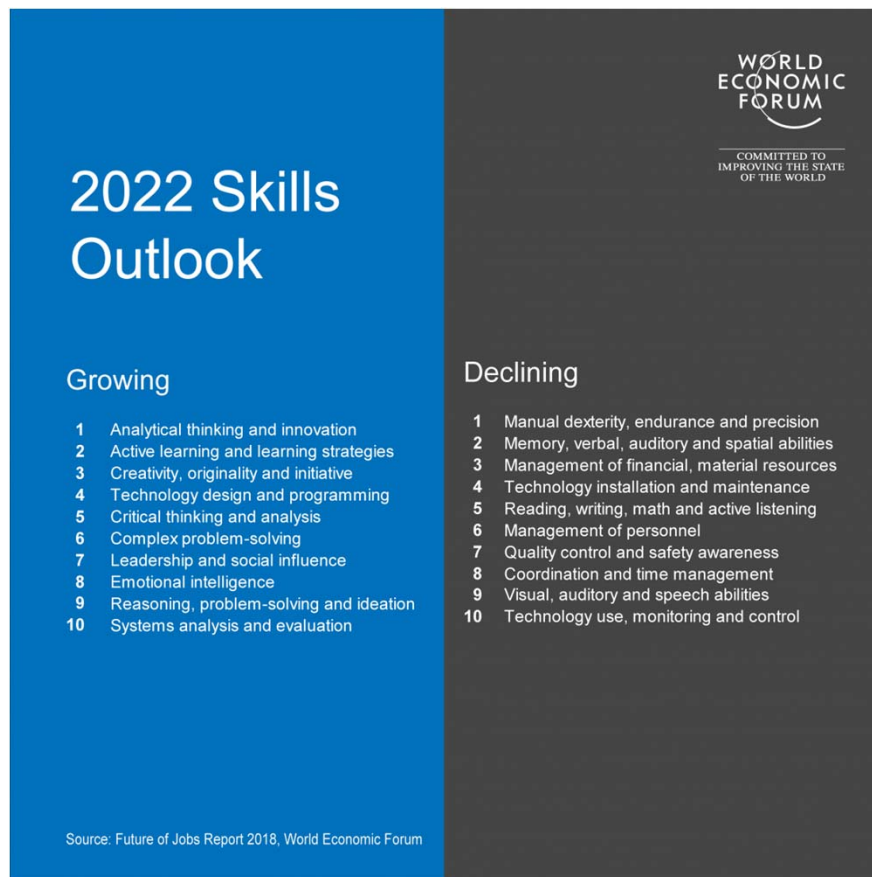
Læring igennem Leg for elever med særlige behov - Danske og Internationale Erfaringer

LEGO Fonden
Bo Stjerne Thomsen
15.05.2020

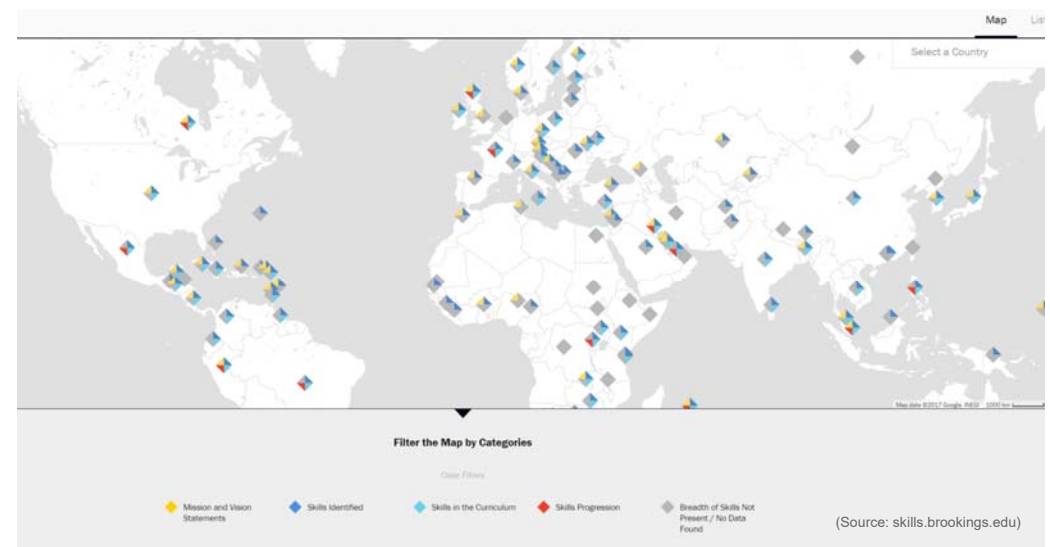
Bo.Stjerne.Thomsen@LEGO.com
@bostjerne



Skills for the future

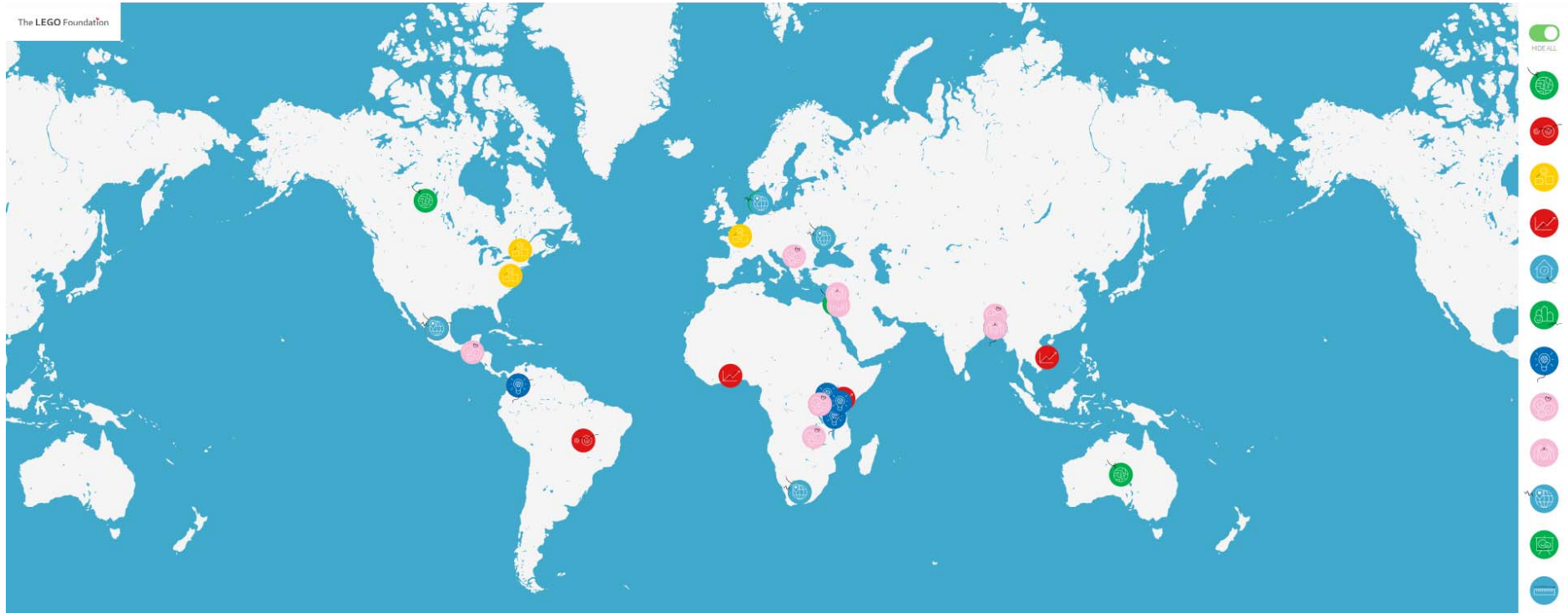


Governments and Education systems are recognising a broader range of skills beyond numeracy and literacy, such as creativity, problem-solving and collaboration.



“Schools need to nurture children’s creativity and critical thinking, help them look at things from different perspectives, and transform their ideas into innovative solutions.” (OECD 2019)

We operate globally with our initiatives



For portfolio overview and info
on the initiatives, press here:

<https://www.legofoundation.com/en/maps-project/>

Examples of initiatives



Competent teachers and pedagogues are fundamental to building the builders of tomorrow in Denmark.



Play our Part aims to develop and scale quality, affordable, centre-based early learning with a goal of systemically reaching 5-8 million children aged 3-6 years by 2024. The initiative seeks to establish play as a required element of quality within early childhood education and to



The focus of the initiative is on reaching caregivers, educators and children through LTP methodologies in the classroom, in homes and in communities. The Initiative is introducing Learning through Play in over 500 public schools in the regions of Gauteng, Free State and

Intervention in Cox's Bazar, Bangladesh



70.8

MILLION
FORCIBLY
DISPLACED
WORLDWIDE

Children (0-18 years) make up half of displaced people. On average displaced for 10.3 years

<https://www.unhcr.org/globaltrends2018/>

Play is supporting basic function like self-control, attention and emotional regulation.

(Bernier, A. et al.; Hughes, C. et al.; Rimm-Kaufman, S. et al.; Blair, C et al; Capurso and Ragni; Hyson, M et.al.; Janet, M. et.al.; Moyles, J. et.al.; Pino-Pasternak, D et.al.; Bodrova, E. et.al.; Fantuzzo et al.; Barnett et al; Blair & Raver; Diamond, Barnett, Thomas, & Munro; Newquist, Dozier, & Neidert; Nicolopoulou, de Sá, Ilgaz, & Brockmeyer).)

Children use play as a mechanism for coping with stressful situations, and it helps them manage their anxieties.

(Saunders, Sayer, & Goodale; Barnett & Storm; Barnett; Henley, Schweizer, de Gara, & Vetter; Goldstein & Russ; Tatlow-Golden, O'Farrelly, Booth, O'Rourke, & Doyle; Vikan, Karstad, & Dias)

Children use play and social interactions, not only to develop social relations, but as a protective mechanism.

(Bulotsky-Shearer et al.; Li, Hestenes, and Wang; Casey et al.; Lindsey and Colwell)

“Social–emotional development in early childhood—including self-regulation, hyperactivity, emotional problems, and peer problems—have each been shown to individually influence academic achievement into primary and secondary school.”

Hammer, D, Melhuish, E & Howard, S (2008)

Evaluation in South Africa

Randomized Control Trial on whether delivering a Six Bricks concept through a low-cost practitioner training model is effective in improving children's engagement, vocabulary and executive functions.

Study design facts:

- 868 children aged 5-6 years in Grade R involved
- 124 primary schools / 124 practitioners
- two treatment groups & one comparison group

Notable effects:

- Improved expressive vocabulary
- Higher engagement (attendance)
- No significant effect on children's executive functions

Vulnerable children (12% stunted, 17% without breakfast, 20% distracted)

Change in Attitudes and Behaviors of practitioners:

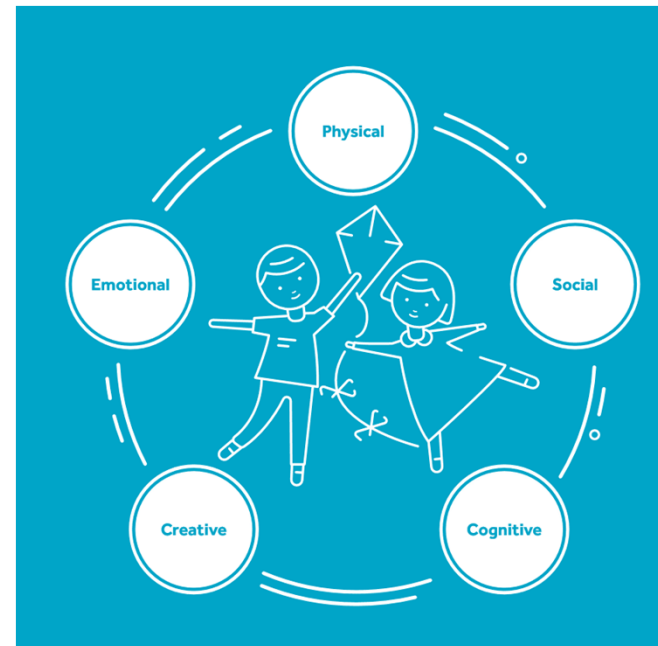
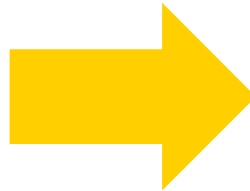
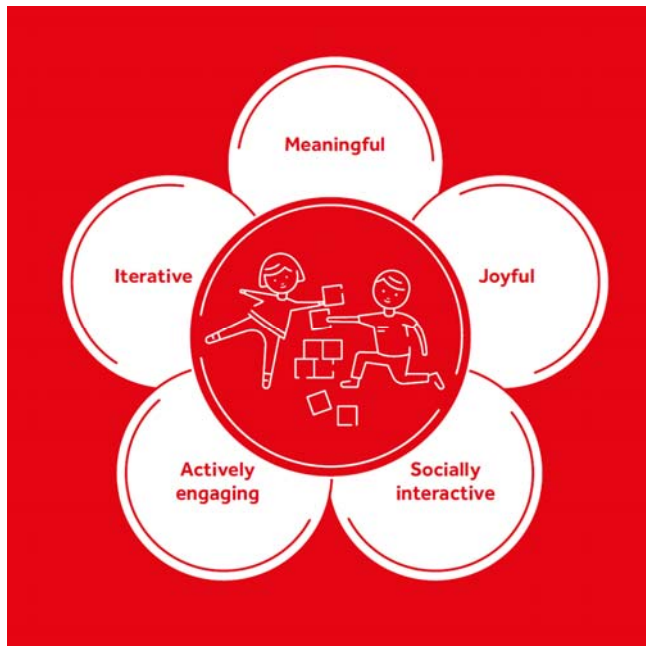
- Gave serious attention to children's voices and choices.
- Made good use of dialogue and promoted questioning.
- Took care of diverse needs of learners.
- Combined whole-class, guided learning and individual activities.



We have a global set of research and development partners

MASSACHUSETTS INSTITUTE OF TECHNOLOGY  MIT Media Lab For the past 30 years, the LEGO Group and the MIT Media Lab have collaborated on projects based on a shared passion for learning through play. Today, the LEGO Foundation and the Lifelong Kindergarten Group continue this tradition by pioneering new technologies and activities to engage children in playful and creative learning experiences.	UNIVERSITY OF CAMBRIDGE  PEDAL Research Centre The PEDAL Research Centre is a central partner towards building an evidence base to help us understand the role of play in children's lifelong learning and development. The Centre's research addresses three key questions which are fundamental to developing our understanding of play and playfulness in children: 1) What is play?, 2) How does play develop?, and 3) Does play have a role in school?	TSINGHUA UNIVERSITY  Laboratory for Lifelong Learning The LEGO Foundation and Tsinghua University are establishing a Laboratory for Lifelong Learning Tsinghua University (TULLL) in Beijing to support play and creativity from pre-school to university, and a new educational reform in China. TULLL will develop new learning tools and methods, and advocate for an increased knowledge about children and students' creativity, play and learning.	AARHUS UNIVERSITY  Interacting Minds Centre The purpose of collaborating with the Interacting Minds Centre at the Aarhus University is to conduct basic and applied research into the properties and mechanisms of playful learning experiences. The aim is to develop tools and methods for documenting, evaluating and measuring play and learning experiences; expand the research network and facilitate knowledge transfer to associated partners.	 Harvard University Center on the Developing Child Using the science of early childhood and brain development as a source of new ideas that can be used to develop more effective policies & services focused on the early years of life. Testing out ideas through a science-based innovation approach to develop new interventions.	 Exploratorium The Tinkering Studio The LEGO Foundation is partnering with the Tinkering Studio to integrate technologies into tinkering activities and to support innovative tools and learning environments on learning through play. The Tinkering Studio is part of the Exploratorium as the internationally renowned museum of science, art and human perception.	 New York University Examining and documenting play behaviors in the home, to understand how infants development and learning depend on the toys and objects that are available to them, and the ways their parents engage them in everyday play.
HARVARD GRADUATE SCHOOL OF EDUCATION  Project Zero The Pedagogy of Play (PoP) project is a two-year participatory research initiative in partnership with the International School of Billund and Project Zero at the Harvard Graduate School of Education. Supported by the LEGO Foundation, PoP explores how teaching methodologies around playful learning can be developed.	 Sesame Street The LEGO Foundation and Sesame street are close partners and work on multiple initiatives together (ie. Humanitarian initiatives). Sesame street are particularly strong in creating engaging content rooted in LfP.	TUFTS UNIVERSITY  Center for Engineering Education and Outreach Researchers from Center for Engineering Education and Outreach at Tufts University are using their experience to guide the development of a new Creator Space at the International School of Billund to help integrate classical engineering topics such as design and testing into the learning experience for students, including kindergarten.	BRAC UNIVERSITY  Play Lab This project aims to establish educational initiatives for children 3-5 through a guided-play curricula facilitated by trained play agents in community-based spaces called Play Labs. Research within BRAC University will focus on the impact on children's whole child development.	 Design School Kolding A Master Degree in Design for Play including a professorship, associate professor, PhD's, design lab and project management of hub for design and play in order to develop research, innovation and education on how to design for children's playful experiences.	 Reggio Children Foundation The Reggio Children Foundation is based on the experience of the Reggio Children innovative infant-toddler centres and preschools. The LEGO Foundation works with Reggio Children to understand how digital technologies act as a language for children to naturally explore, express and understand themselves through experiential, active learning.	 Brookings Institution The Centre for Universal Education, Brookings, is a thought leader in the global education community and develops new evidence around how to transform teaching and learning and how to translate that evidence into actionable strategies for policymakers.

Our approach to learning through play



Play is often understood as recreation, doing things without purpose, or as one specific kind of play activity. We use these characteristics to define play as an effective context for learning.

Learning is often understood as academic content learned in formal education settings. We see these holistic skills as fundamental for children to become creative, engaged lifelong learners and as integrated with knowledge and expertise.

Spend 30 sek.

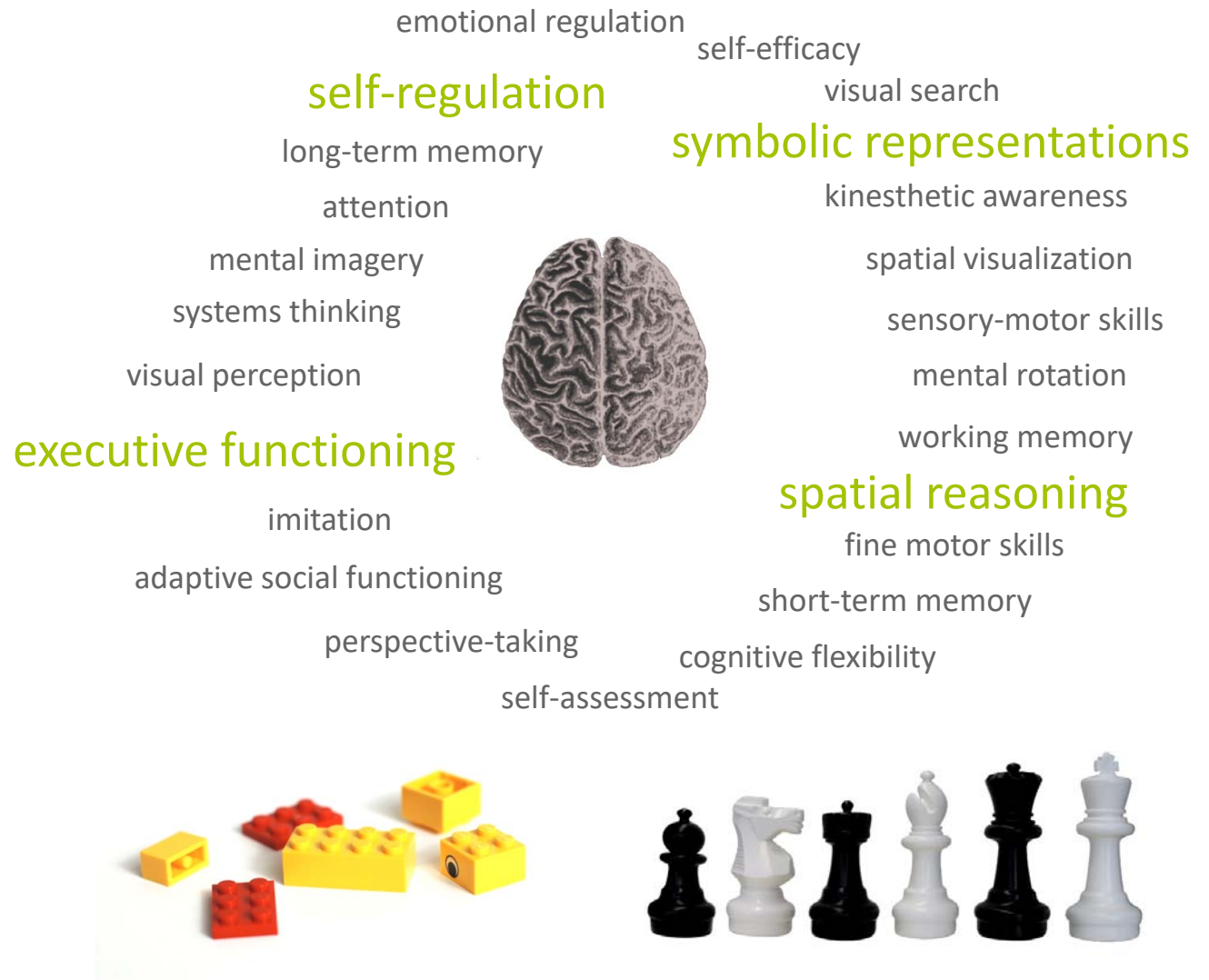
Look at an
object within
your reach.

Reach and grab
that object.

Place the
object in a new
and surprising
position.

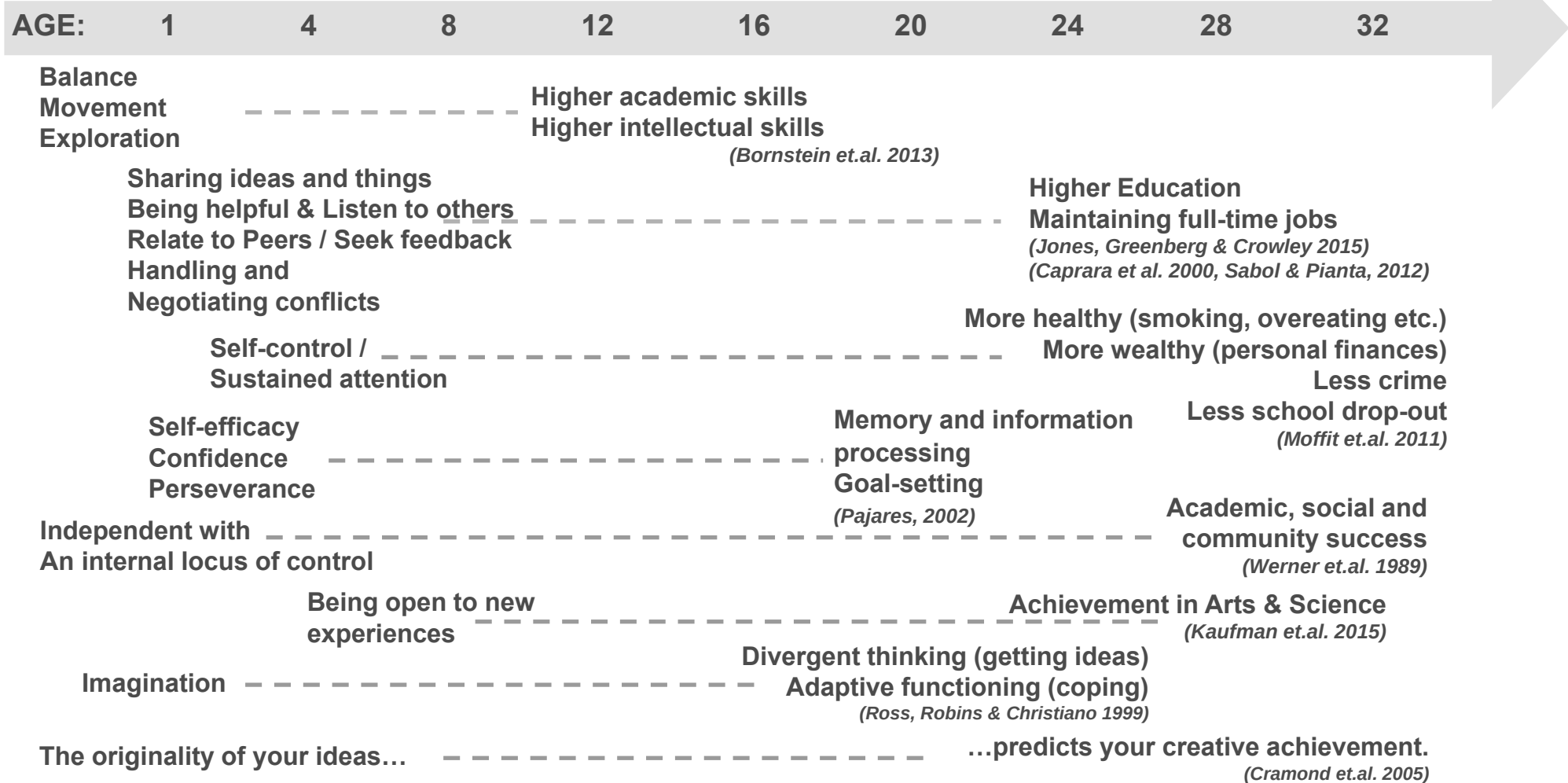
Adjust if you like.
Share if you can.

The LEGO Foundation



We begin to understand how playful experiences can develop long-term holistic skills

CREATIVE COGNITIVE PHYSICAL
EMOTIONAL SOCIAL



We have tested an observation tool to measure how well experiences support Learning through Play.



		Actively Engaging	Joyful	Meaningful	Iterative	Socially Interactive
Non Play "I am not inspired by the experience" "I want to play something else instead"		I do not want to participate	I am unhappy	I do not want to connect to the play experience	I am not going to try	I do not want to interact with others
Passive "I am following instructions" "I follow along and see what happens"		I am following the play or instructions of others	I am neutral about the experience	I do not feel connected to the play experience	I do not know how to respond to the experience	I do not feel part of the group
Responding "I respond to my surroundings" "I am forming intentions and express a response with initial actions"		I consider the environment and materials	I am intrigued	I attend	I interact with the experience	I am aware of others
Exploring "I explore what I can and cannot do" "I begin to anticipate events and set own goals to drive my efforts"		I want to continue	I am enjoying the process – though it may not all go smoothly	I am interested in this experience	I adjust my approach	I approach others or let others approach me
Owning "I have learned something" "I am internalising the experience and manage my own motivation to stick with challenges despite difficulties"		I am immersed in the experience	I feel a sense of accomplishment	I understand the experience and how it relates to my life	I make changes based on what I have learned	I play with others collaboratively
Transferring After the experience "I can do things I couldn't do before" "I am reflecting on how this can influence my own life and others to follow pursuits and make change in real life situations"		I seek possibilities to apply what I have learned to new situations	I am enthusiastic about starting new projects	I recall the experience and use it to understand other things	I seek out and explore similar problems (outside the experience)	I cooperate with others to initiate new play experiences



Learning through Play for Children with ~~Special Needs~~ Inequality?

The LEGO Foundation



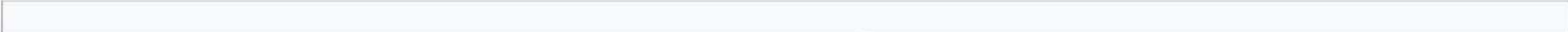
The Pedagogical Concept

LEGO Braille Bricks is purposely developed as a combined toolbox and pedagogical concept to ensure optimal use and outcomes.

Organisations sign-up to provide free professional training and distribution of toolkits to schools & services, who are eligible to apply.

The LEGO Foundation

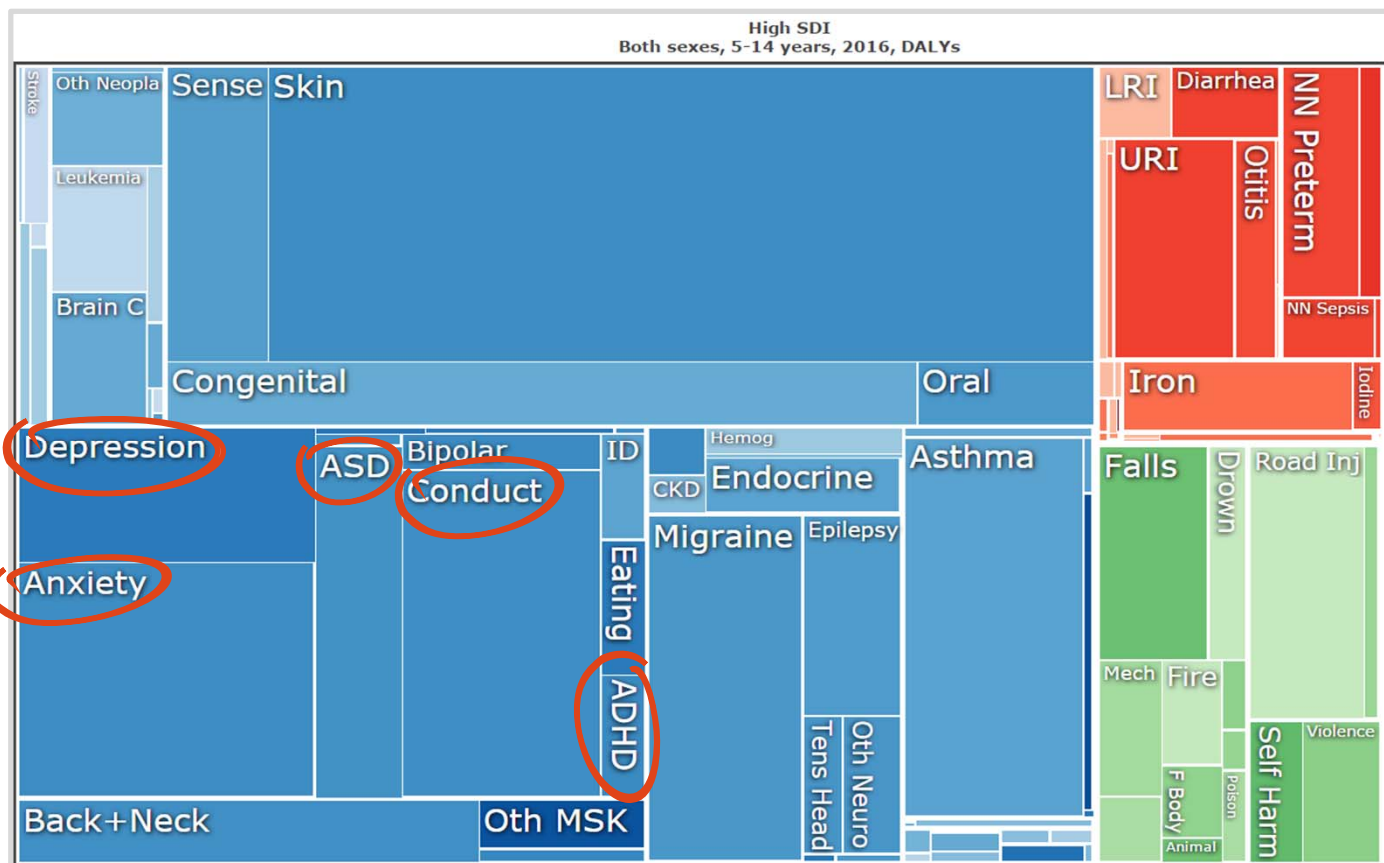




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Some of the major health challenges

Size of each area represents magnitude of challenge



High development countries

Guide:

- **Measure (DALY):** The years lost to either disability, ill-health or death. Size of colored area represents years lost to condition (WHO)
- **Geographic Area:** Europe, North America and Australia (High Socio Demographic Index, WHO)
- **BLUE** = Non-communicable disease and mental health
- **RED** = Communicable/infectious disease
- **GREEN** = Injuries

- **ASD** = Autism Spectrum Disorder
- **Conduct** = Serious emotional and behavioral problems in children

Comments:

- High SDI countries chosen due to the fact, that low SDI countries mostly have challenges with communicable diseases, malnutrition etc.
- Mental health conditions are a major challenge in developed countries
- Depression and Anxiety are major challenges, even surpassing Autism

Play with health benefits



“Research demonstrates that developmentally appropriate play with parents and peers is a singular opportunity to promote the social-emotional, cognitive, language, and self-regulation skills that build executive function and a prosocial brain.

Furthermore, play supports the formation of the safe, stable, and nurturing relationships with all caregivers that children need to thrive.

Play is not frivolous: it enhances brain structure and function and promotes executive function (ie, the process of learning, rather than the content), which allow us to pursue goals and ignore distractions.”

Children's Hospital Copenhagen

Create the world's best hospital, that sets new standards for the treatment of children, adolescents, pregnant women and their families.



OLE KIRK's Fond

The LEGO Foundation



Examples of interventions

Play Prescription

Pro-active approach to improve children's development in early childhood and to promote positive interactions between adults and children.

Diagnoses or Situations:

Children in early age with delays in one or more areas of their physical, cognitive, social and/or language development.

Children's Age:

(between 2-4 years of age)



Children learn:

- Increase the amount of play between adults and children
- Physical development
- Executive functions (Flexible thinking, Working memory, Impulse control).
- Social developmental skills. 100% of children with a yellow score and 61.9% of children with a red score achieved a green score after the intervention.
- Language development. 85.6% of children that had a yellow score and 61.5% of children with a red score, achieved a green score.



Source:

- Dr. Antonio Rizzoli Córdoba Neurodevelopmental Research Unit
- Children's Hospital Federico Gomez of Mexico

LEGO-Based Therapy

A social groups or individual therapeutic intervention that draws on children's natural interest in play and focuses on developing children's ability to promote social interaction.

Diagnoses or Situations:

Children autism spectrum disorder (ASD)
Children with high functioning autism and Asperger syndrome.

Children's Age:

(between 6 - 16 years of age)



Learnings:

- Improved communications skills
- Improved social competence.
- Motivation to initiate social contact with peers.
- Ability to sustain interaction with peers (Long-term a significant increase in the duration)
- Overcoming autistic symptoms of aloofness and rigidity.
- Fewer maladaptive behaviors
- Improvement in family relationships
- Better coping
- Reductions in time playing alone



Source:

- LeGoff, D. B. (2004). Use of LEGO® as a therapeutic medium for improving social competence. *Journal of Autism and Developmental Disorders*, 34(5), 557-571.
- LeGoff, D. B., & Sherman, M. (2006). Long-term outcome of social skills intervention based on interactive LEGO® play. *Autism*, 10(4), 317-329.
- <https://www.bricks-for-autism.co.uk/>
- Owens, G., Granader, Y., Humphrey, A., & Baron-Cohen, S. (2008). LEGO® Therapy and the Social Use of Language Programme: An evaluation of two social skills interventions for children with high functioning autism and Asperger syndrome. *Journal of Autism and Developmental Disorders*, 38(10), 1944-1957.
- Lindsay, S., Hounsell, K. G., & Cassiani, C. (2017). A scoping review of the role of LEGO(R) therapy for improving inclusion and social skills among children and youth with autism. *Disability and Health Journal*, 10(2), 173-182.

Playing Two Times a Day

Children undergoing surgery

Unstructured play in the hospital is a key strategy to support play reduction in children hospitalized for respiratory disease (primary for school children).

Diagnoses or Situations: Children undergoing elective surgery.

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

Scaffolding Facilitation

Influences on Child and families development

To facilitate a scaffolding development is about how the child gets new skills but at previous skills (learning). And adults need to provide the appropriate amount of help and guidance for children to develop optimal skills.

Diagnoses or Situations: Children undergoing medical procedures as surgery or experience a sick situation.

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

Doll Play to train separation or changes

Doll Play by using dolls is a method that has been shown to be effective for children experiencing anxiety or separation anxiety.

Diagnoses or Situations: Children who experienced separation anxiety.

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

Play "Picture Me Playing"

Coping with mental disability

The intervention "Picture Me Playing" is a globally enhanced social based intervention targeting children's role play through a narrative approach. During pretend play with typical peers, it focuses on the play behavior of preschool children with autism.

Diagnoses or Situations: Children with autism (ASD).

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

Play as Coping

Medical procedures and hospital stays

Reducing stress and anxiety, enhancing coping skills, facilitating treatment, and improving general medical and nursing for children going through repeated or lengthy hospital visits or undergoing invasive procedures.

Diagnoses or Situations: Children undergoing medical procedures as surgery or experience a sick situation.

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

Fantasy Play with Dolls and Puppets

Medical procedures and hospital stays

Reducing stress and anxiety, enhancing coping skills, facilitating treatment, and improving general medical and nursing for children going through repeated or lengthy hospital visits or undergoing invasive procedures.

Diagnoses or Situations: Children undergoing medical procedures as surgery or experience a sick situation.

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Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

Group Play Therapy

The Relationship for Growth and Learning Program

Group Play Therapy by using games helps children exposed to trauma and experiencing behavioral and developmental challenges to regulate their behaviors and interactions.

Diagnoses or Situations: Children exposed to trauma and experiencing behavioral and developmental challenges.

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

Facilitate Play Therapy

Psychosocial and child-centered approach primarily used to help children freely explore and express repressed thoughts, thoughts, experiences, behaviors or emotions through play.

Diagnoses or Situations: Children exposed to trauma and experiencing behavioral and developmental challenges.

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

The Puppet Show

Medical procedures and hospital stays

Puppet show about their procedures in which they were allowed to participate helps the children to cope with the stressful situation.

Diagnoses or Situations: Children undergoing medical procedures as surgery or experience a sick situation.

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

Peer to Peer Play

Peer engagement through play facilitates the ability to negotiate. Peer play usually involves problem solving about the rules of the game, which requires negotiation and cooperation.

Diagnoses or Situations: Children undergoing medical procedures as surgery or experience a sick situation.

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

Play Therapy

Psychosocial and child-centered approach primarily used to help children freely explore and express repressed thoughts, thoughts, experiences, behaviors or emotions through play.

Diagnoses or Situations: Children exposed to trauma and experiencing behavioral and developmental challenges.

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Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

The Batman effect

Pretending to be a super hero helps a child to step back from a problem and think about it from multiple angles. It helps her use different options for finding a solution.

Diagnoses or Situations: Children exposed to trauma and experiencing behavioral and developmental challenges.

Learnings: To assist with the surgery that affect on:
• Lower levels of cortisol
• Children who play alone play for 1 hour per day and play in 30 min (meeting and meeting).

Children's Age: (between 1-10 years of age)

Source: LeGoff, D. B. (2004). *Use of LEGO® as a therapeutic medium for improving social competence. Journal of Autism and Developmental Disorders*, 34(5), 557-571.

A comprehensive review of play-based interventions for autistic children.

Developing social skills is an outcome in its own right and important for play-based interventions.

Play-based interventions are a promising area for supporting social and communication skills for autistic children, and a potential to improve quality of life.

Play helps to manage anxiety and can be a way to make friends with like-minded others. However, it can also cause anxiety.

*“**What** we’re playing doesn’t become important, because it becomes more around **the ritual of it**; the way we act in it, is who we are as a person.”*



Additional evidence on how playful experiences support the development of skills.



The evidence on how **playful experiences** benefit attention, self-control, imagination, problem-solving, language, collaboration etc.



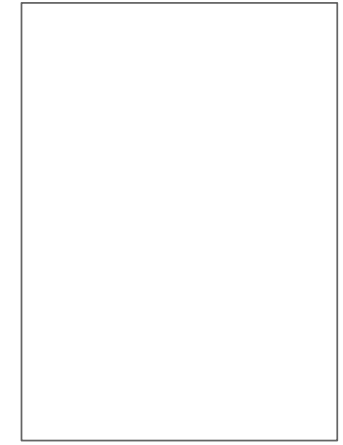
The different **types of play** which develop motor skills, social competence, language, emotional regulation, problem-solving, mathematics, attention etc.



The role of the adult in supporting and enhancing a child's playful experience for health and well-being, attention, spatial skills, social skills, conceptual thinking etc.



The evidence on **Learning through Play in school** to develop knowledge and understanding alongside a broader range of holistic skills, alongside high engagement.



New report on how **children learn through play with digital technologies.**

Forthcoming August 2020

<https://www.legofoundation.com/en/learn-how/>

Thanks

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[@BoStjerne](https://www.instagram.com/BoStjerne)



The LEGO Foundation