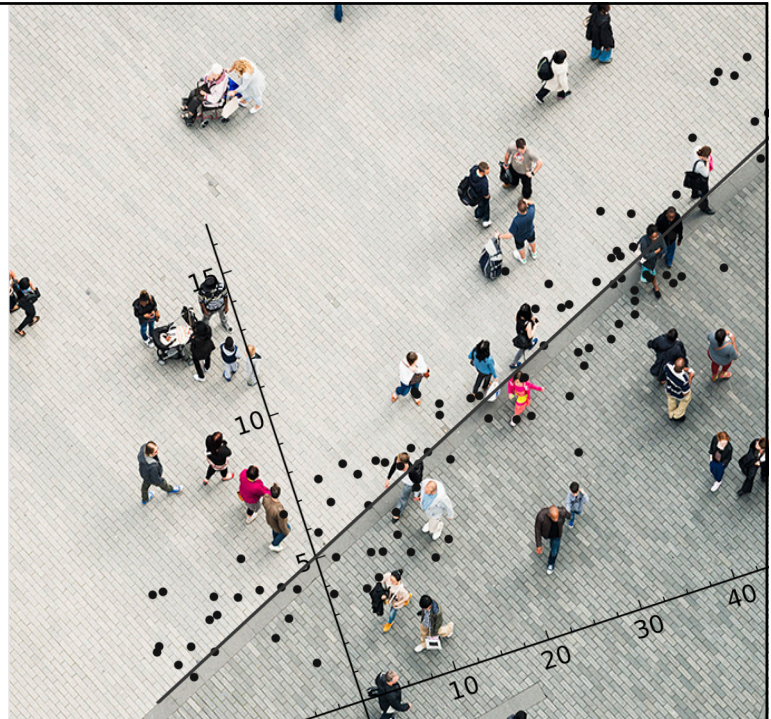


ERSTE ESG CEE CONFERENCE 2024

MAY 6, ERSTE CAMPUS VIENNA

Using Behavioural Insights to nudge sustainable choices

Pelle Guldberg Hansen,
Behavioural Scientist, Ph.D. @ Roskilde University
Chairman of The Danish Nudge Network
CE of INUDGEYOU - The Applied Behavioural Science Centre



1

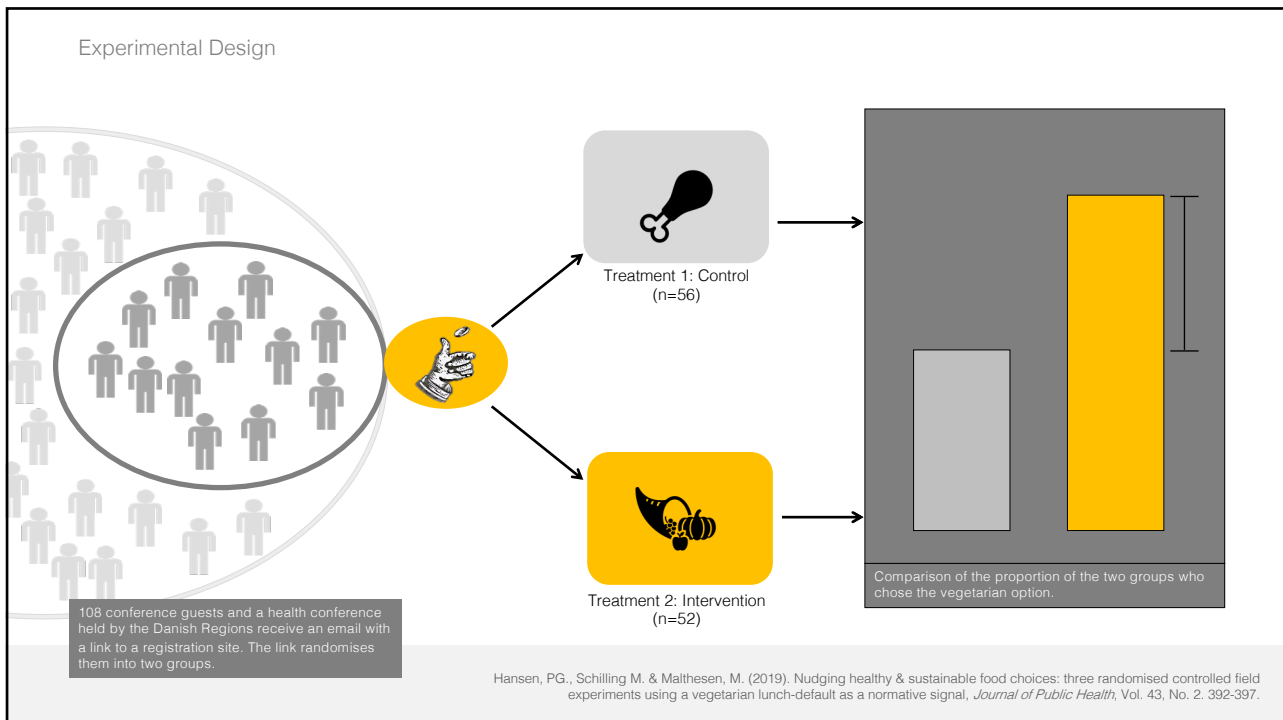


FIELD-EXPERIMENT

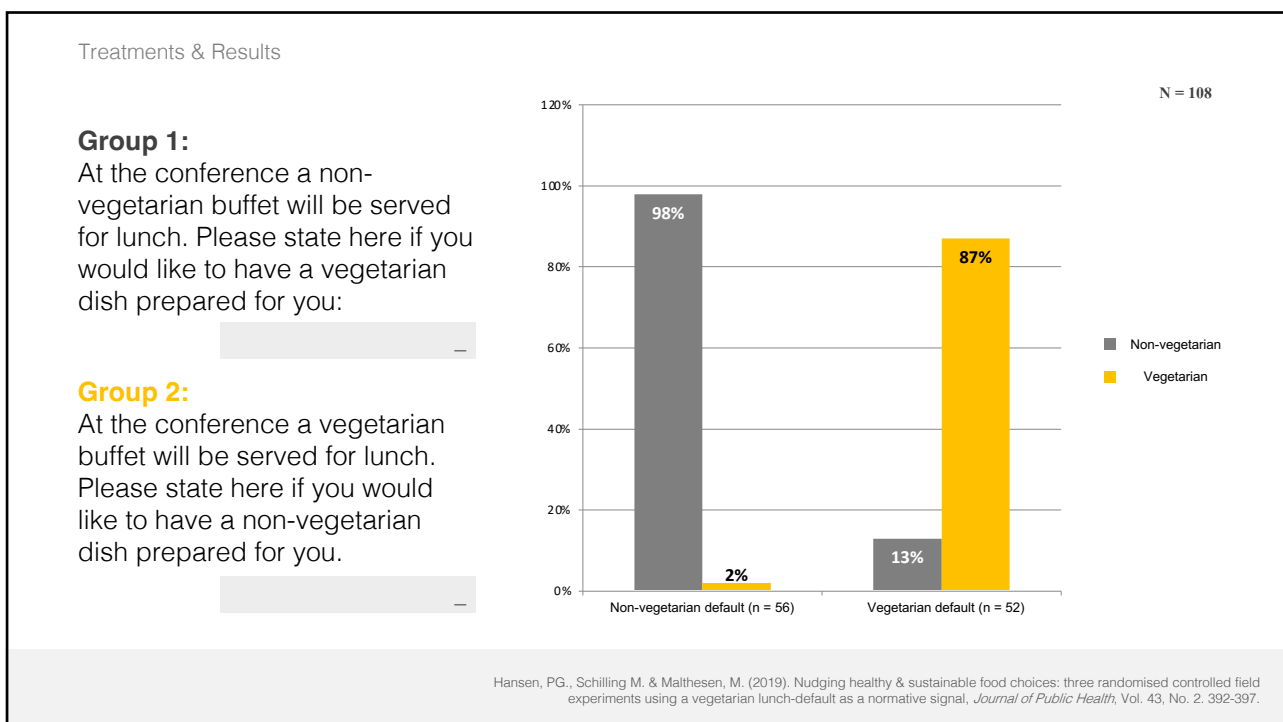
Nudging healthy & sustainable food choices

Hansen, P.G., Schilling M. & Malthesen, M. (2019). Nudging healthy & sustainable food choices: three randomised controlled field experiments using a vegetarian lunch-default as a normative signal, *Journal of Public Health*, Vol. 43, No. 2, s. 392-397.

2



3



4

Group 1:

At the conference a non-vegetarian buffet will be served for lunch. Please state here if you would like to have a vegetarian dish prepared for you:

Group 2:

At the conference a vegetarian buffet will be served for lunch. Please state here if you would like to have a non-vegetarian dish prepared for you.



Signal encouraging behaviour
Normative signal (Determination)



Flip of cognitive 'friction'
Cognitive avoidance (Determination)



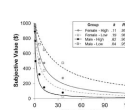
Quality assurance
Expectations (Belief-formation)
Secondary: Attractive (Choice)



Flip of hassle factor
Easy & Reciprocity (Determination)



Signal about the likely
behaviour of others
Social Proof (Belief-formation)



Hyperbolic discounting
State-of-mind (Attention)

Hansen, P.G., Schilling M. & Malthesen, M. (2019). Nudging healthy & sustainable food choices: three randomised controlled field experiments using a vegetarian lunch-default as a normative signal, *Journal of Public Health*, Vol. 43, No. 2. 392-397.

5

Non-vegetarian default (Gr. 1)

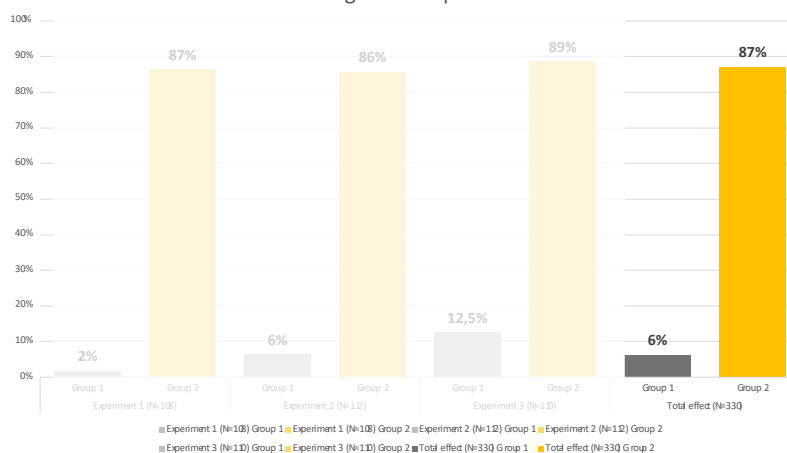
At the conference a non-vegetarian buffet will be served for lunch. Please state here if you would like to have a vegetarian dish prepared for you:

Vegetarian default (Gr. 2)

At the conference a vegetarian buffet will be served for lunch. Please state here if you would like to have a non-vegetarian dish prepared for you:

Lunch choice – Proportion choosing vegetarian option over non-vegetarian option

N = 330



Hansen, P., Schilling M. & Malthesen, M. (2019). Nudging healthy & sustainable food choices: three randomised controlled field experiments using a vegetarian lunch-default as a normative signal, *Journal of Public Health*, Vol. 43, No. 2. 392-397.

6

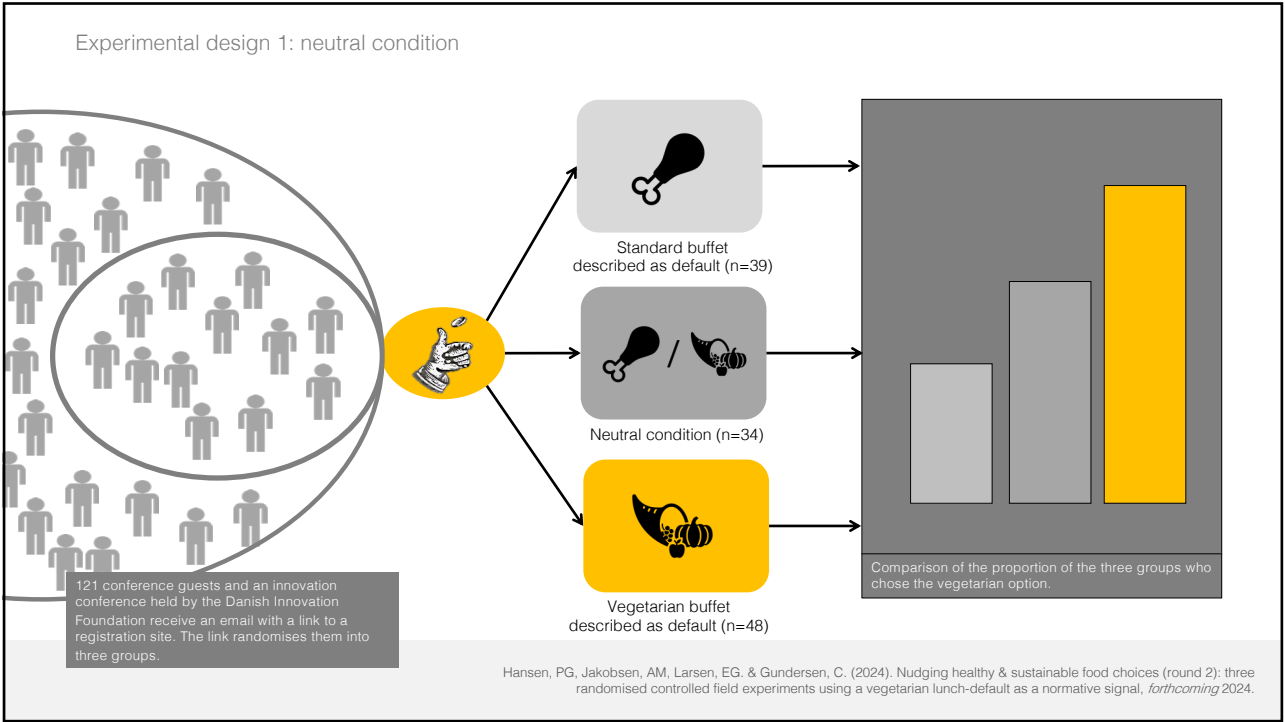


FIELD-EXPERIMENT

Nudging healthy & sustainable food choices, Phase 2

Hansen, P.G., Jacobsen A.M., Larsen, E.G. & Gundersen, C.D. (2024). Nudging healthy & sustainable food choices (round 2): three randomised controlled field experiments using a vegetarian lunch-default as a normative signal within subjects, *Ongoing Research Programme*

7



8

Interventions & results

Standard default

At the conference a non-vegetarian buffet will be served for lunch. Please state here if you would like to have a vegetarian dish prepared for you:

Answer: _____

Neutral condition

At the conference you can choose between a non-vegetarian and a vegetarian buffet for lunch. Please, state your preferences.

Answer: _____

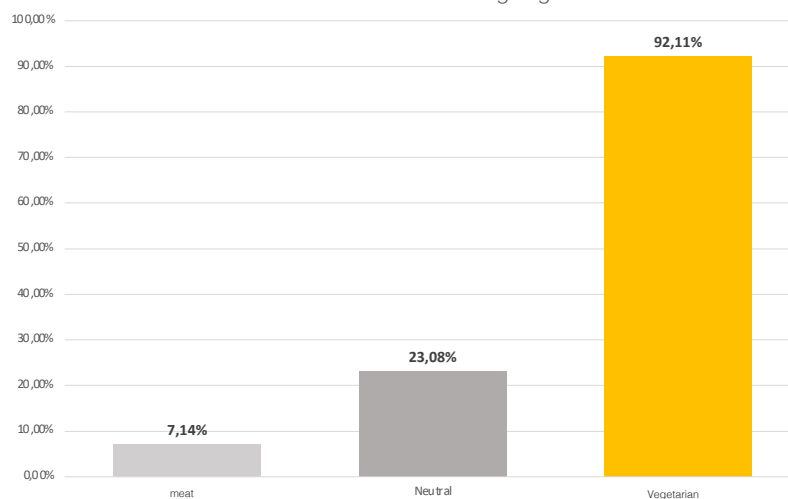
Vegetarisk default

At the conference a vegetarian buffet will be served for lunch. Please state here if you would like to have a non-vegetarian dish prepared for you:

Answer: _____

Lunch choice – Share choosing vegetarian

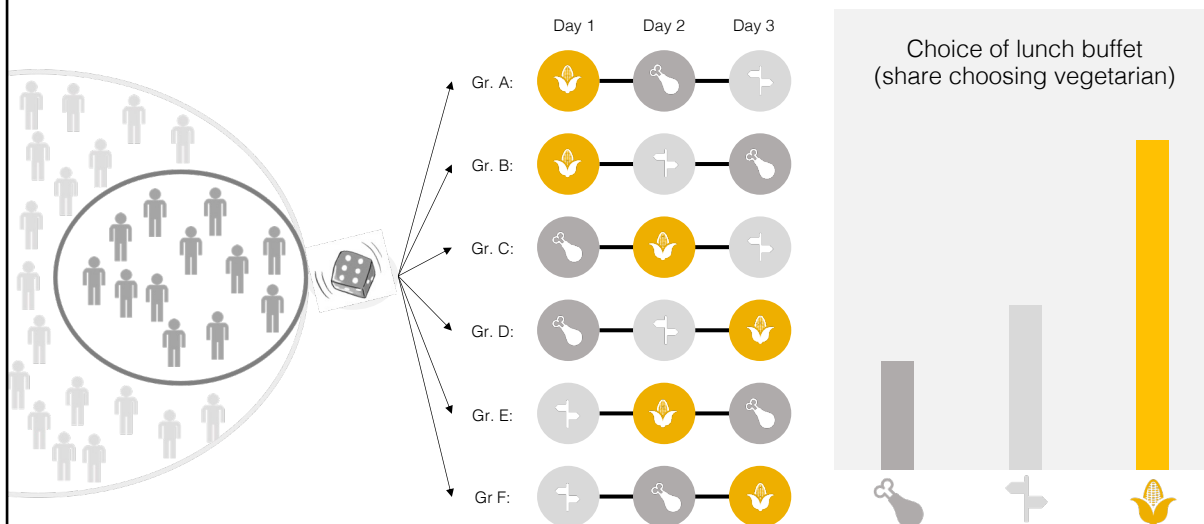
N = 121



Hansen, PG, Jakobsen, AM, Larsen, EG, & Gundersen, C. (2024). Nudging healthy & sustainable food choices (round 2): three randomised controlled field experiments using a vegetarian lunch-default as a normative signal, *forthcoming 2024*.

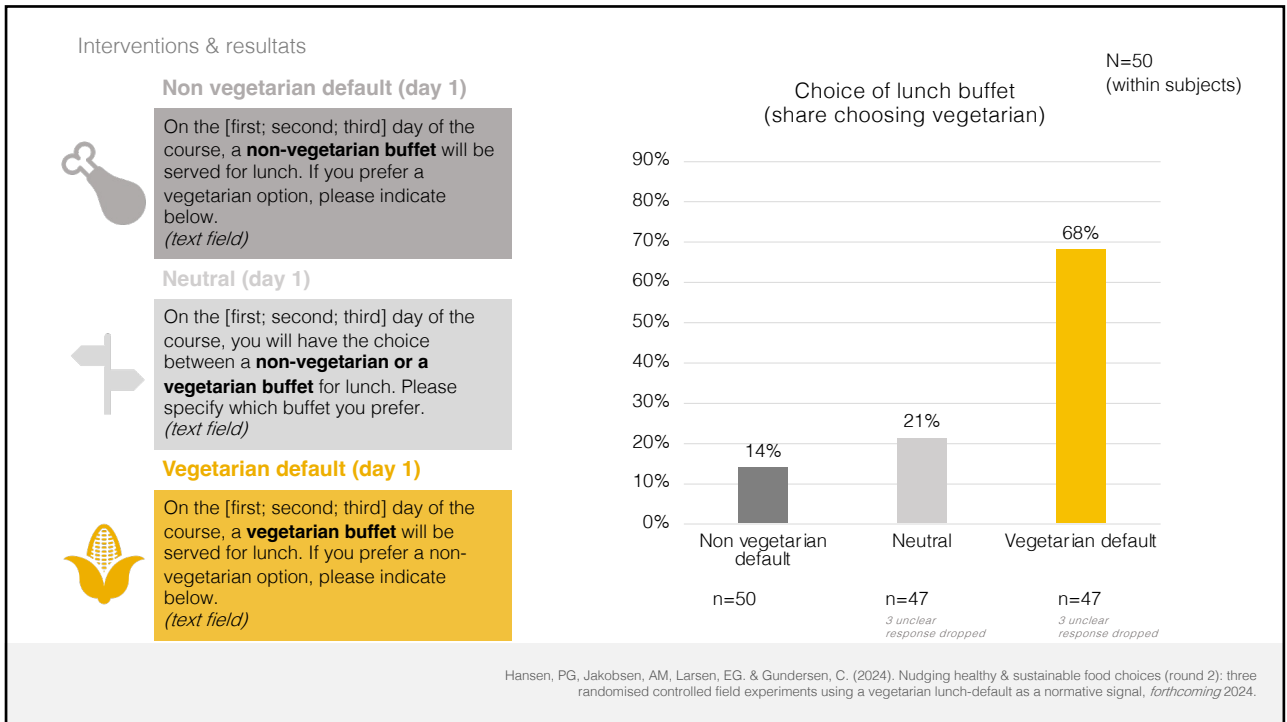
9

Experimental design 2: Three consecutive days within-subjects w. neutral condition, conference setting

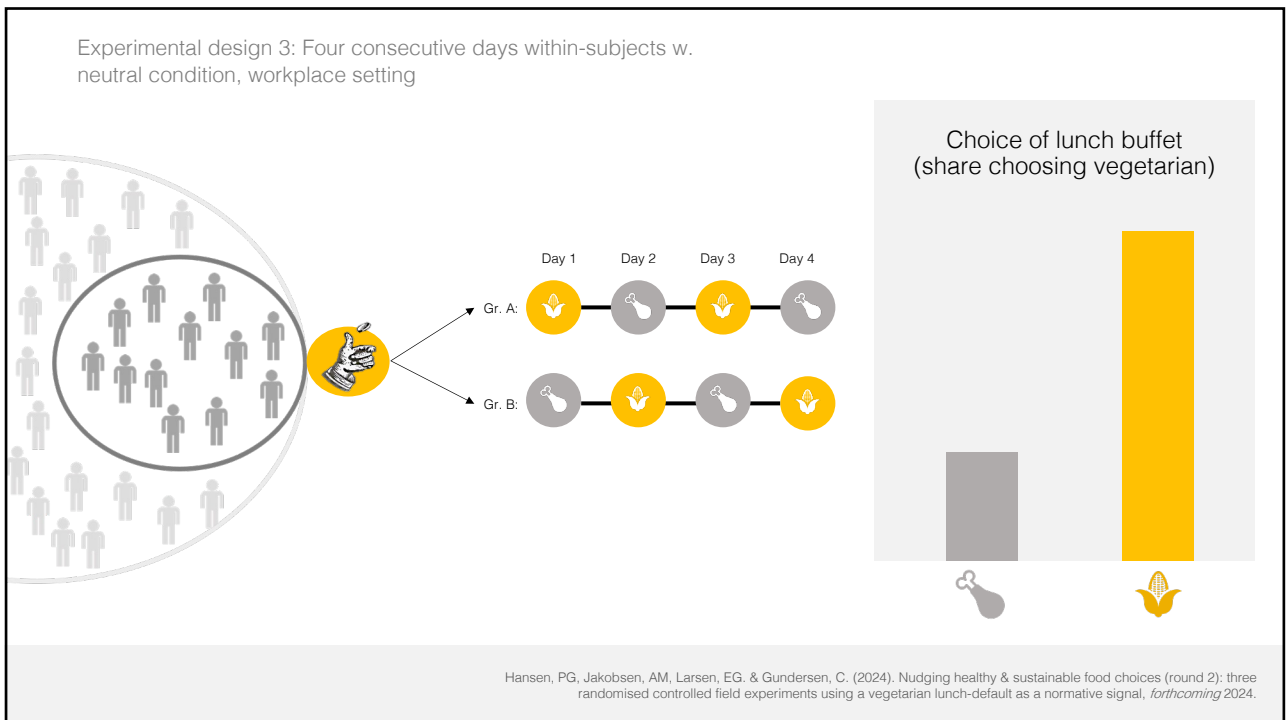


Hansen, PG, Jakobsen, AM, Larsen, EG, & Gundersen, C. (2024). Nudging healthy & sustainable food choices (round 2): three randomised controlled field experiments using a vegetarian lunch-default as a normative signal, *forthcoming 2024*.

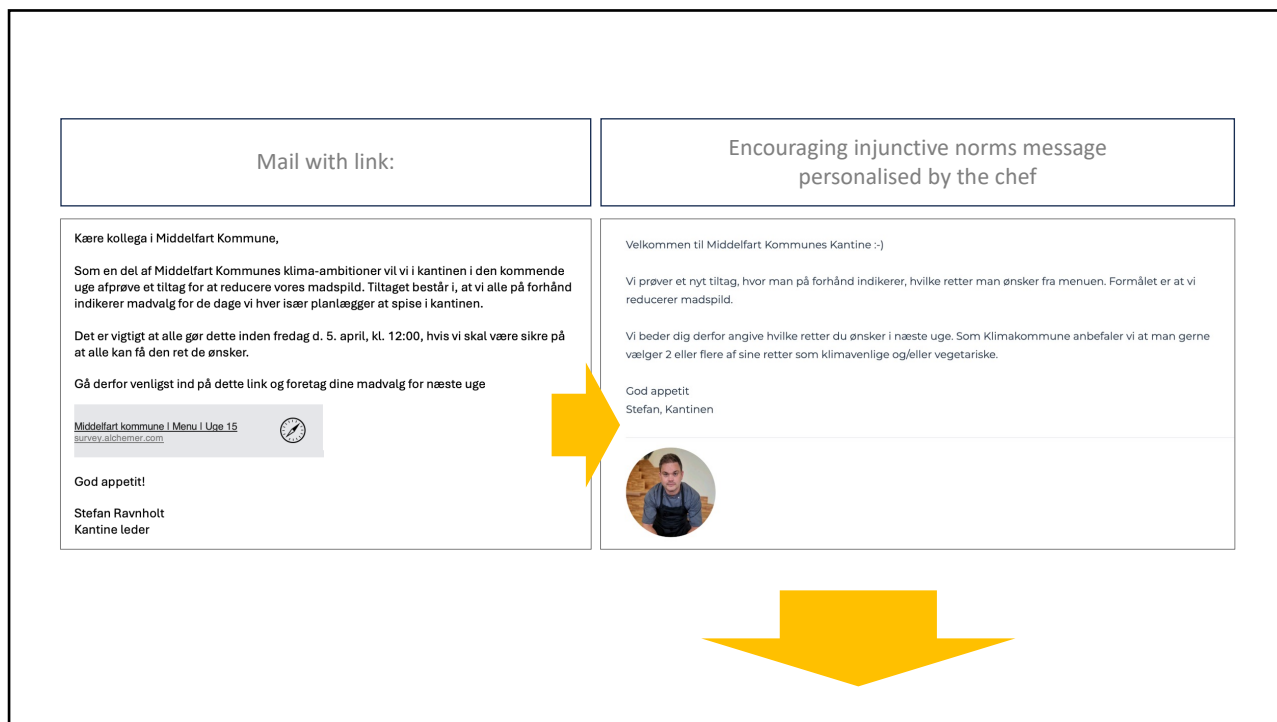
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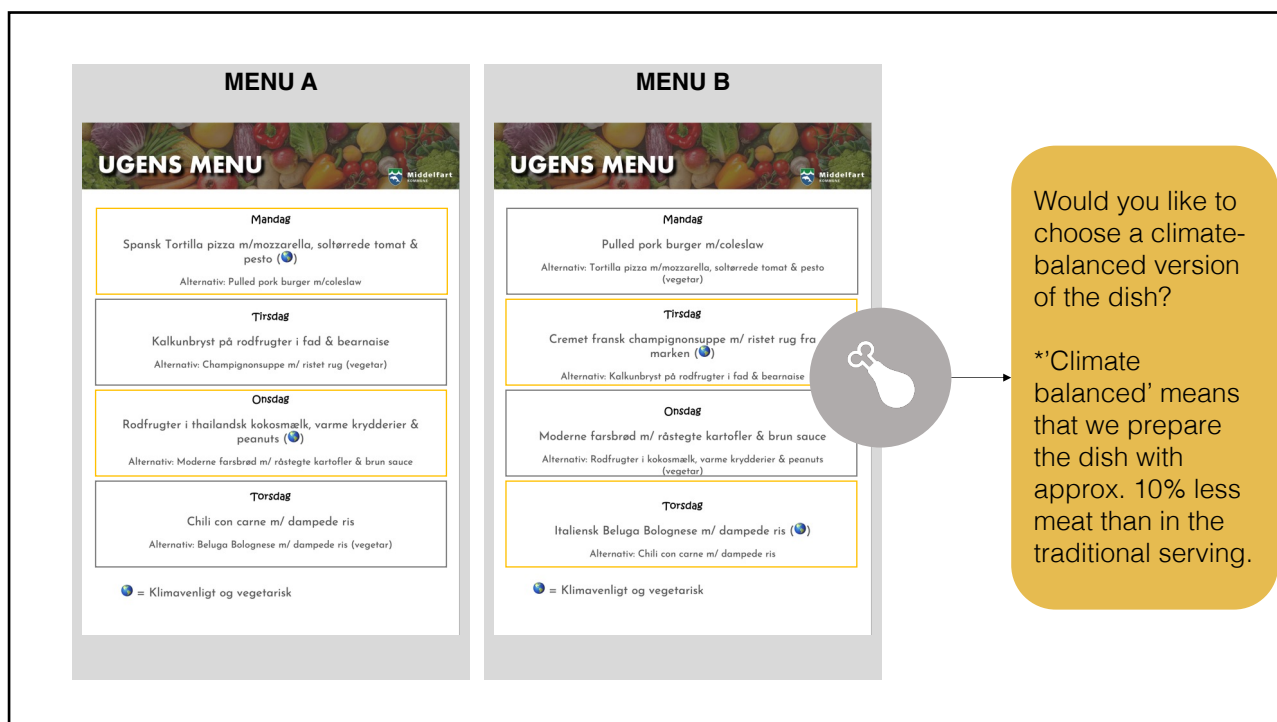
11



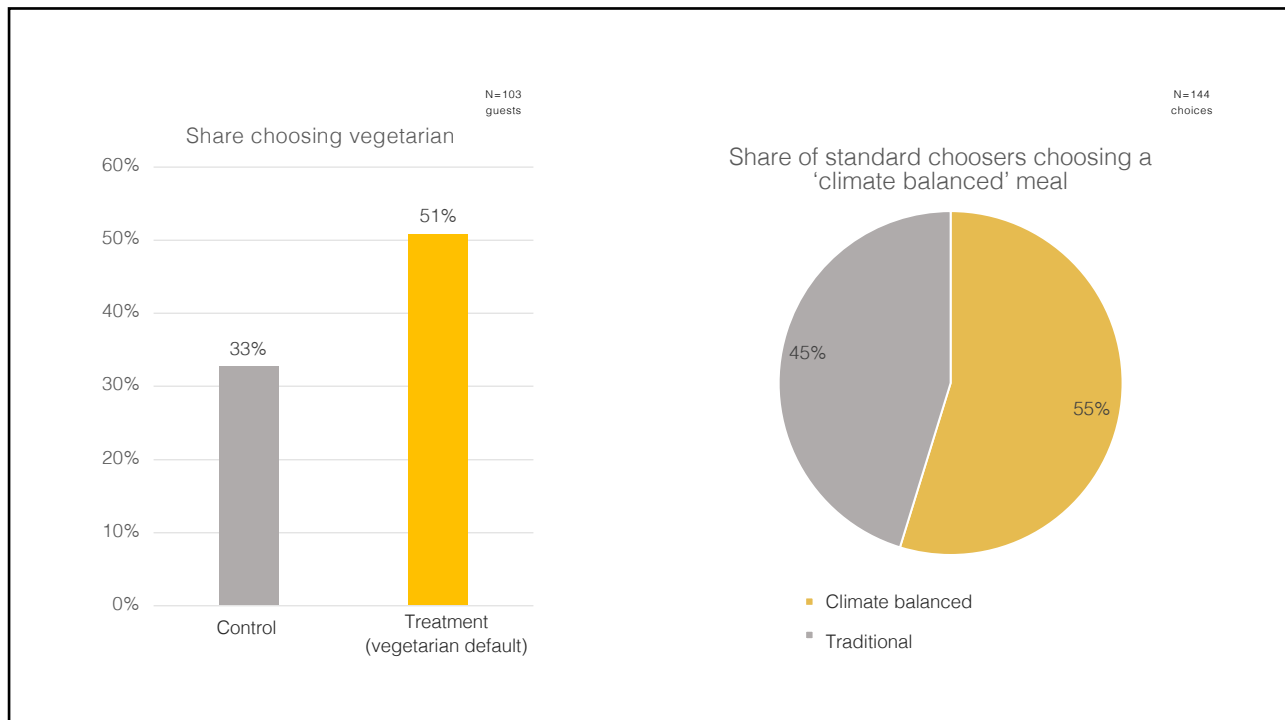
12



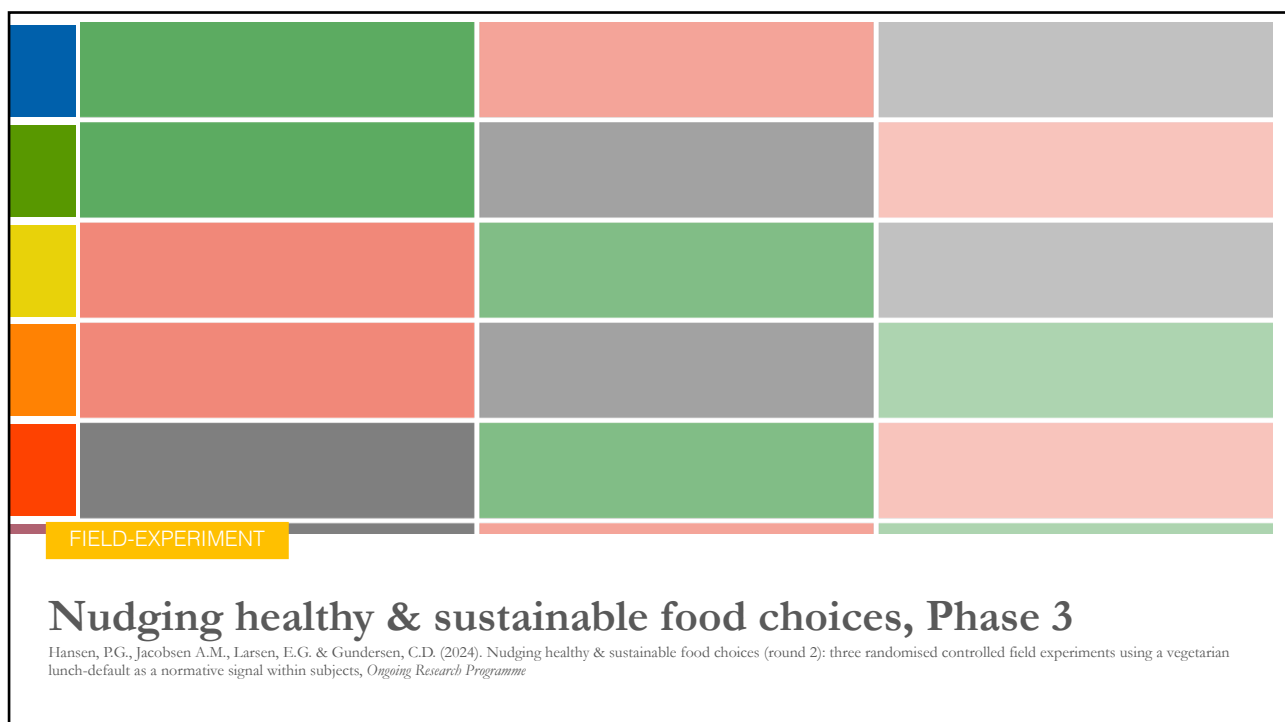
13



14



15



16

GREENER BY
DEFAULT

[Get Started](#)
[Benefits](#)
[Resources](#)
[About Us](#)
[Donate](#)

Empowering institutions to serve sustainable, inclusive food — by default

By applying the latest behavioral science research, Greener by Default helped LinkedIn:

- Decrease the amount of meat served/person by 50%
- Save 14,400 kg CO₂ eq, equivalent to driving 35,000 miles

Greener by Default makes plant-based food the default, while giving diners the choice to opt into meat/dairy. This strategy allows institutions to:

- meet carbon reduction goals
- save on food costs
- improve health and inclusivity

all while preserving freedom of choice.

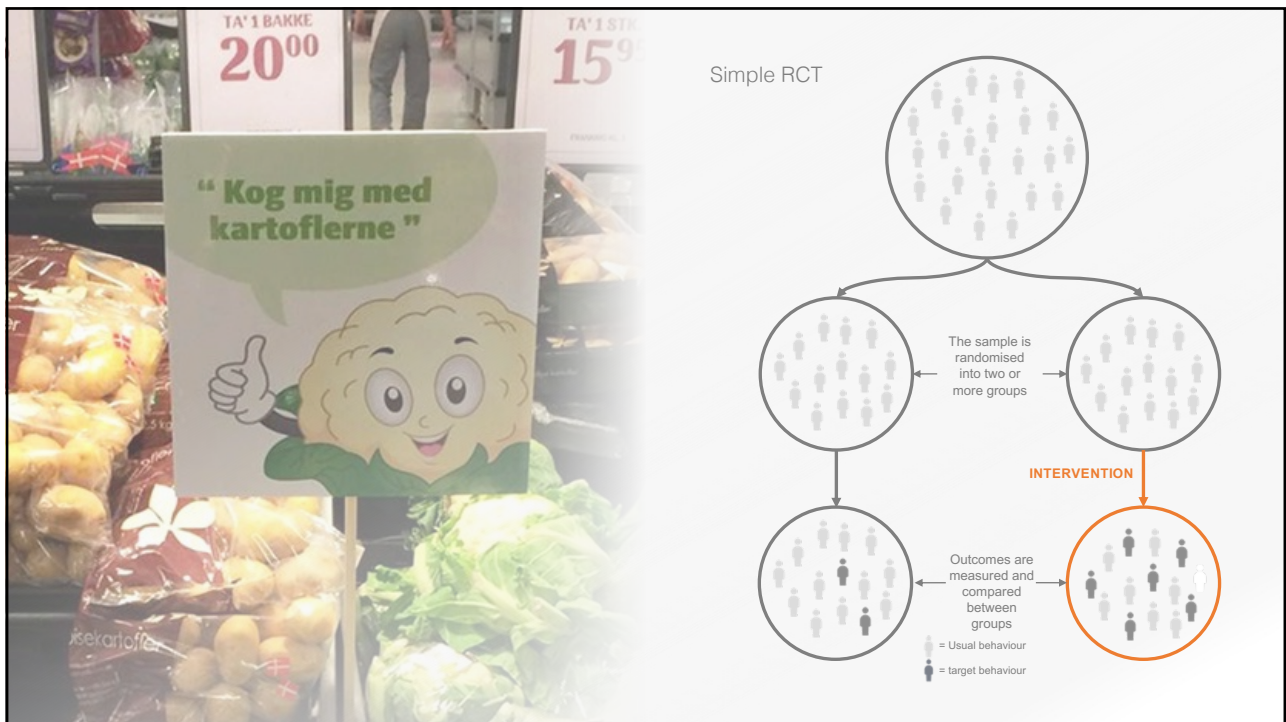
17

HEURISTIC DEFINITION

nudge /nʌdʒ/

”Any intentional aspect of a choice architecture that should not influence behaviour in principle..., but does in practice.”

18



19

The top part of the image is a photograph of a supermarket potato display, similar to the one in slide 19. A sign on the display reads "Kog mig med kartoflerne" (Boil me with the potatoes) and features a cartoon potato character giving a thumbs up. Price tags in the background show "TA' 1 POSE 16⁹⁵", "TA' 1 BAKKE 20⁰⁰", and "TA' 1 STK. 15⁹⁵".

Below the photograph is a yellow box with the text "FIELD-EXPERIMENT".

Below the yellow box is the title "Boil me with the potatoes" in a large, bold font.

Below the title is the citation: "Hansen, P.G., Hulgaard, K. (2015). *Et kærtigt grønt skul: Nudging af forbrugsvaner med fokus på frugt og grønt*, Måltidspartnerskabet, Rostra Kommunikation & iNudgeyou – The Applied Behavioural Science Centre."

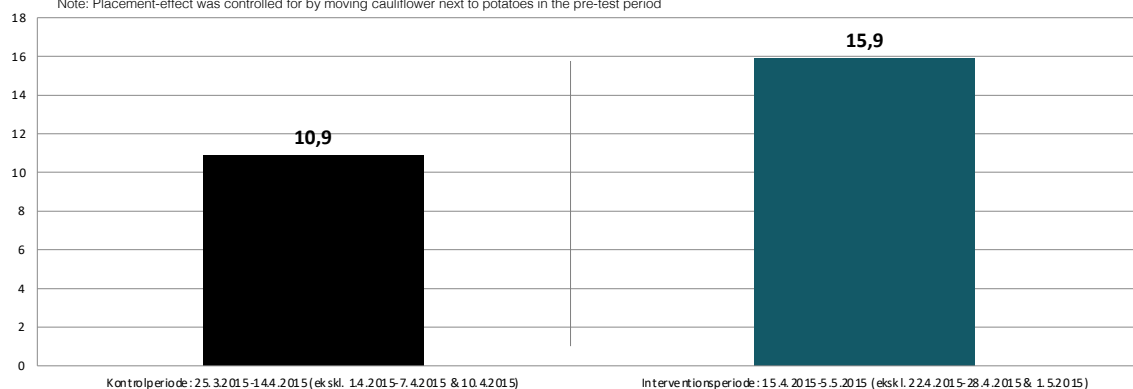
20

The average number of cauliflower sold per day increased by 45% in Supermarket A compared with pre-test period



Supermarket A: Nørrebro

Note: Placement-effect was controlled for by moving cauliflower next to potatoes in the pre-test period



Hansen, P.G., Hulgaard, K. (2015). *Et kærligt grønt skub: Nudging af forbrugsvaner med fokus på frugt og grønt*. Måltidspartnerskabet, Rostra Kommunikation & iNudgeyou – The Applied Behavioural Science Centre.

21



Testing Campaigns: "6 om dagen" (6-a-day)

Hansen, P.G., Gundersen, C.D., Malthesen, M., Modin, A. & Veng, L. (2019). Test af "6 om dagen" kampagnen. *Fødenaredagen* 2019.

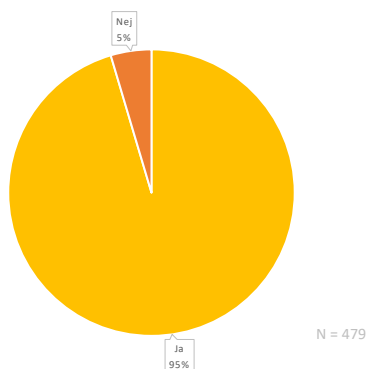
iNudgeyou
THE APPLIED BEHAVIOURAL SCIENCE CENTRE

Netto

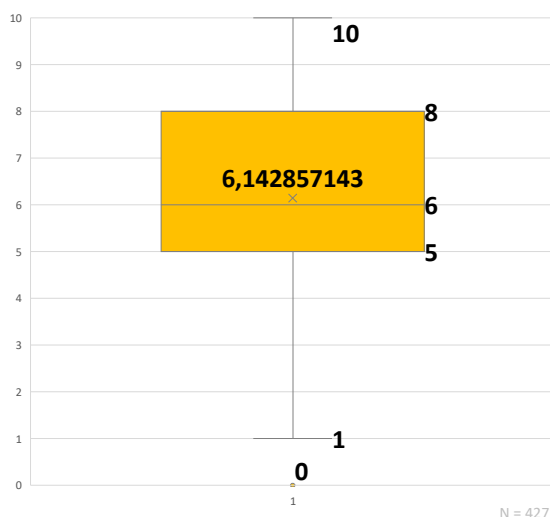
22



Do you know the 6-a-day campaign, which says that all should eat approx. 600 grams of fruit and vegs a day?



On a scale from 0-10, how much do you like the campaign "6-a-day"?

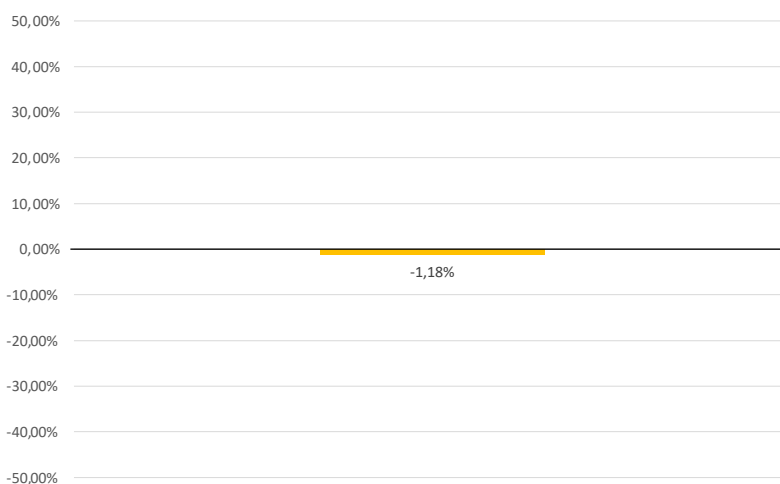


23

Test Concept & Results



CAMPAIGN: Change in fraction of DKK used on fruit and vegetables pr. basket (in pct.)
N = 827.413



Hansen, PG., Gundersen, CD., Malthesen, M., Modin, A. & Veng, L. (2019). Test af "6 om dagen" kampagnen. *Fødevarer* 2019.

24

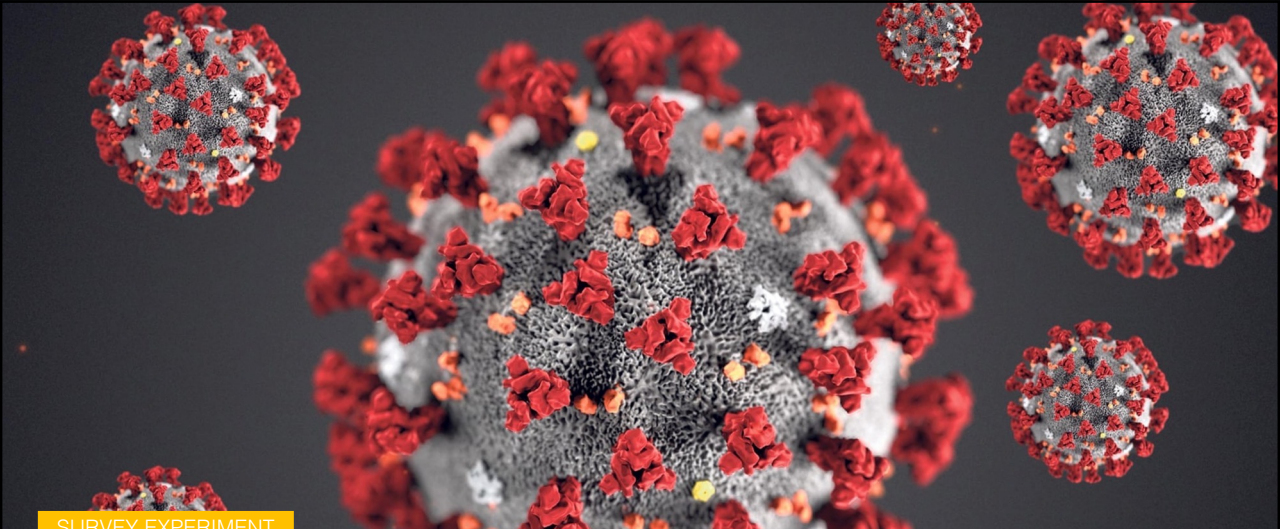
> How much fruit and vegs do you approx. eat a day?
(grams)

371 g

> Do you know the 6-a-day campaign, which says
that all should eat approx. 600 grams of fruit and vegs
a day?

417 g

25



SURVEY EXPERIMENT

Testing Methods: COVID 19 "The Hope-project"

Hansen PG, Gahner, E. & Gundersen, C. (2020). Reporting on one's behaviour: a survey experiment on the nonvalidity of self-reported COVID-19 hygiene-relevant routine behaviours. *Behavioural Public Policy*, Vol. 6, No. 1, s. 34-51.

26

6 Indland

Torsdag den 23. april 2020 | 10:00

Hvor tit vasker du hænder? Professor bag målinger kan ikke svare på sit eget spørgsmål

Ekspertene siger nu, at det er et ryddeligt, sikkert og bekymrende grundlag, som bl.a. blev lagt til grund for beslutningen om at holde cafeer, restauranter, offentlige og hospitaler lukkede. Men den fortsatte nedlukning gennemgår og målinger og spørgsmål om, hvor ofte folk har vasket eller spjettet hænder. Men manden bag spørgsmålet kan ikke selv besvare det med sikkerhed. Han tror, det nok var otte gange.



”Jeg ved ikke, om det er godt grundlag eller ej. Jeg vil sige, at det er de data, vi har.”
MICHAEL BANG PETERSEN,
PROFESSOR OG LEDEL AF HOPE-
PROJEKTET, KØBENHAVNS UNIVERSITET

Professor Michael Bang Petersen står i spidsen for Hope-projektet, hvor ca. 500 personer løbende spørges til deres vaner, følelser og adfærd under coronakrisen. Det sker via online spørgeskemaer. Arkivfoto

Do you know how often you washed or sanitized your hands yesterday?

“No, it is not easy to answer. But we know from survey research that when people answer, their answer is based on a ‘hunch’, and that ‘hunch’ is often associated with our actual behaviour.”

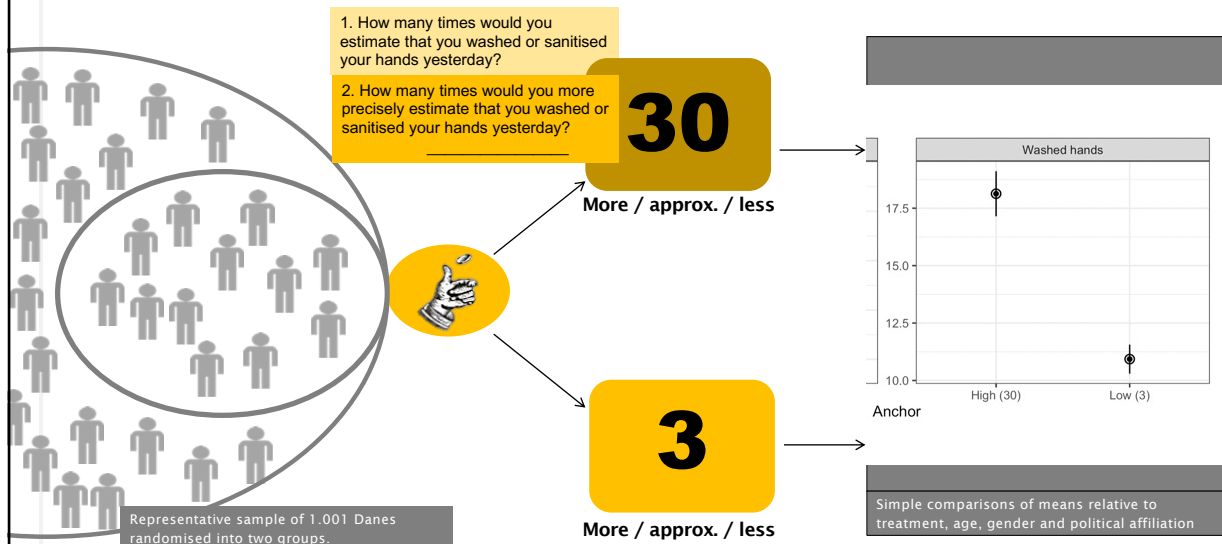
Can you remember how often you did it?

“I think I did it about... Let me just think about it carefully... probably about 8 times, but I can’t remember it very precisely. Point taken.”

Doesn’t that illustrate the problem?

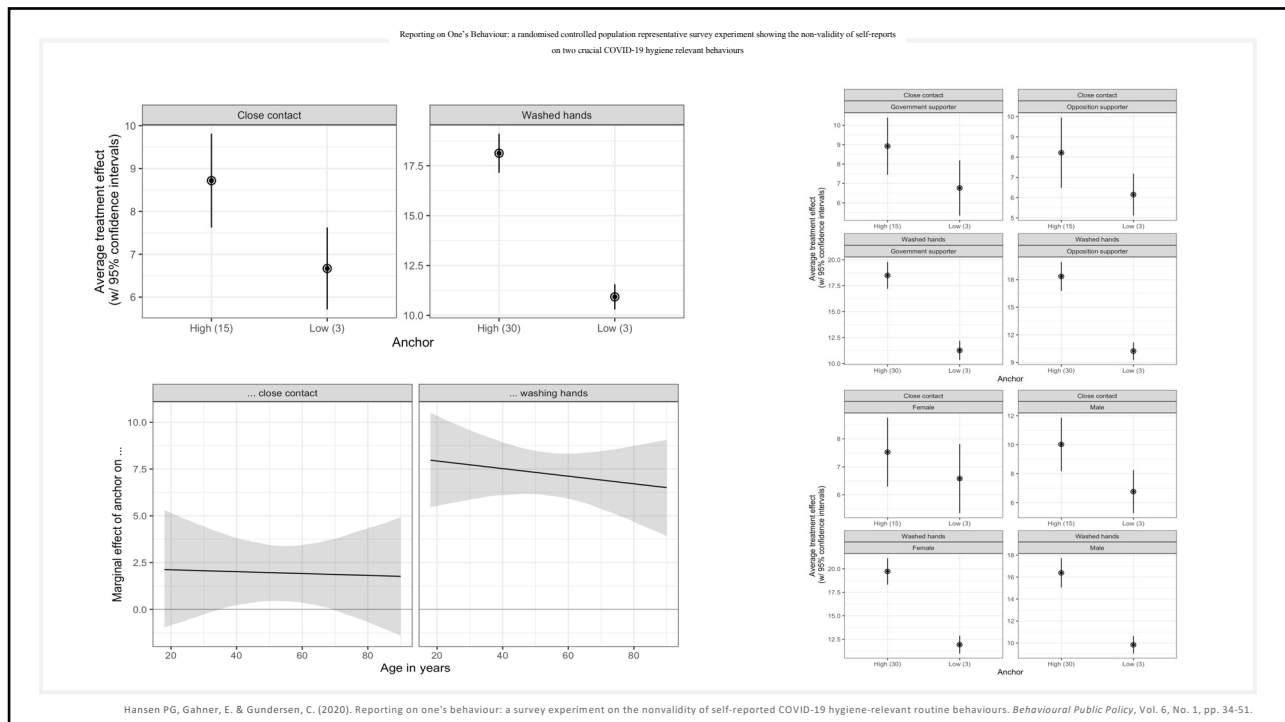
“You are absolutely right. If I was to answer your question, I would say 8 times. However, the point is that we assume – and in all survey research you assume – that the answers that comes to mind is associated with how we actually behave.”

27



Hansen PG, Gahner, E. & Gundersen, C. (2020). Reporting on one's behaviour: a survey experiment on the nonvalidity of self-reported COVID-19 hygiene-relevant routine behaviours. *Behavioural Public Policy*, Vol. 6, No. 1, pp. 34-51.

28



29

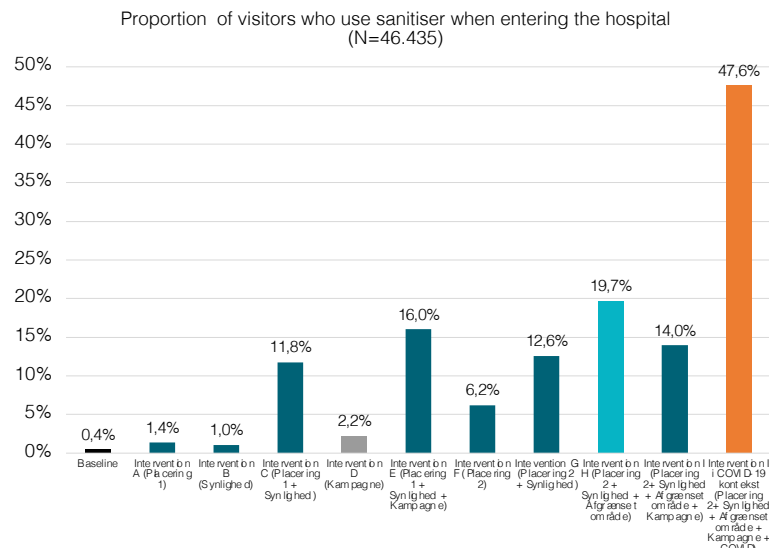
FIELD-EXPERIMENT

Nudging hand hygiene compliance

Hansen, P. G., Gahner Larsen, E., Modin, A., Gundersen, C., & Schilling, M. (2021). Nudging hand hygiene compliance: a large-scale field experiment on hospital visitors. *Journal of Hospital Infection*, Vol. 118, pp. 63-69.

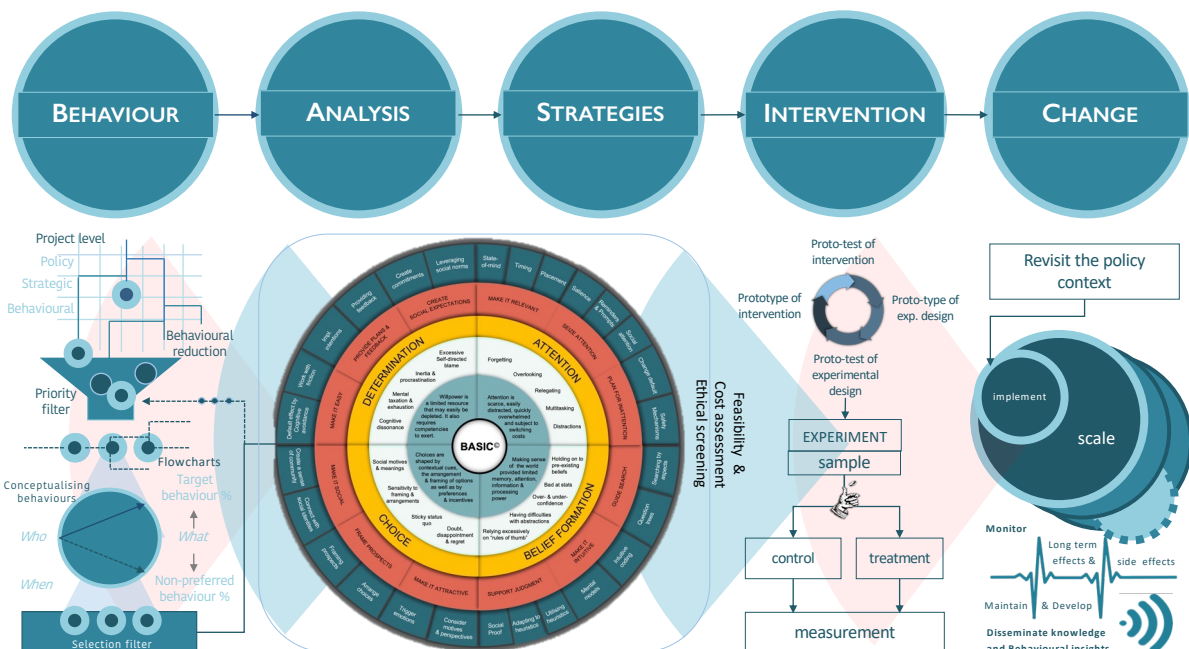
DANSKE REGIONER
Amager og Hvidovre Hospital
iNudgeyou
THE APPLIED BEHAVIOURAL SCIENCE CENTRE

30

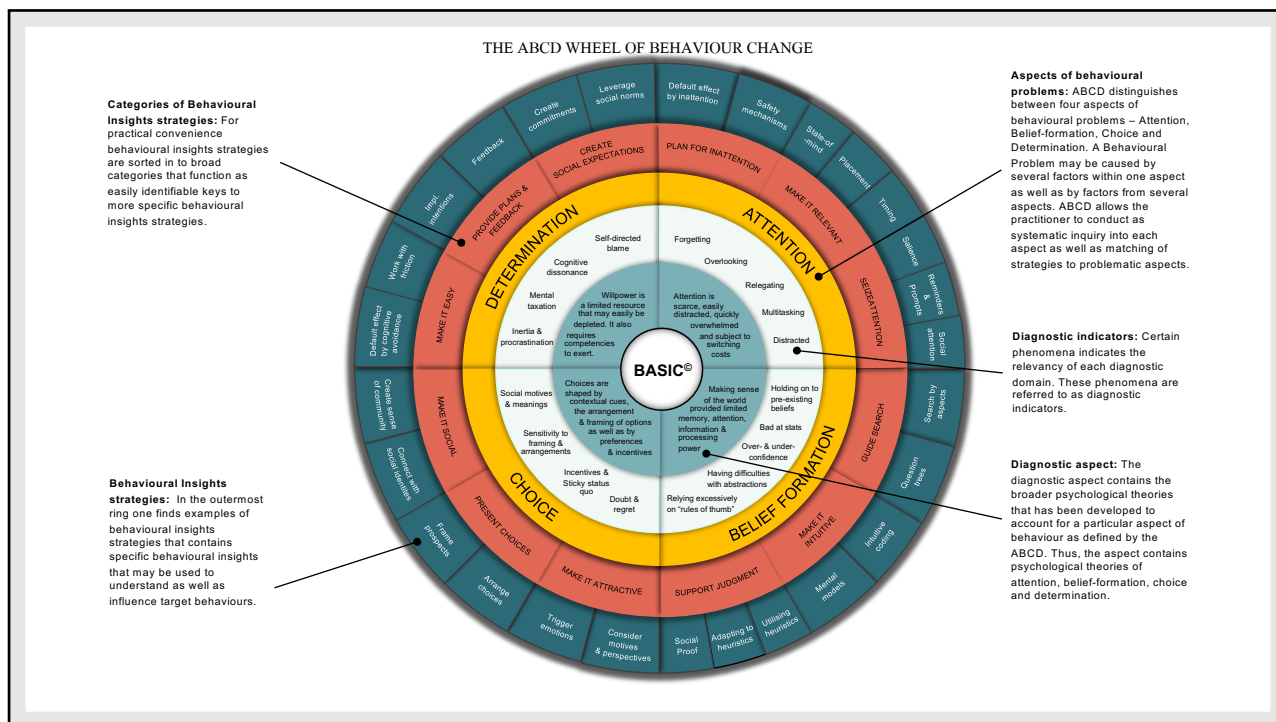


Hansen, P. G., Gahner Larsen, E., Modin, A., Gundersen, C., & Schilling, M. (2021). Nudging hand hygiene compliance: a large-scale field experiment on hospital visitors. *Journal of Hospital Infection*, Vol. 118, pp. 63-69.

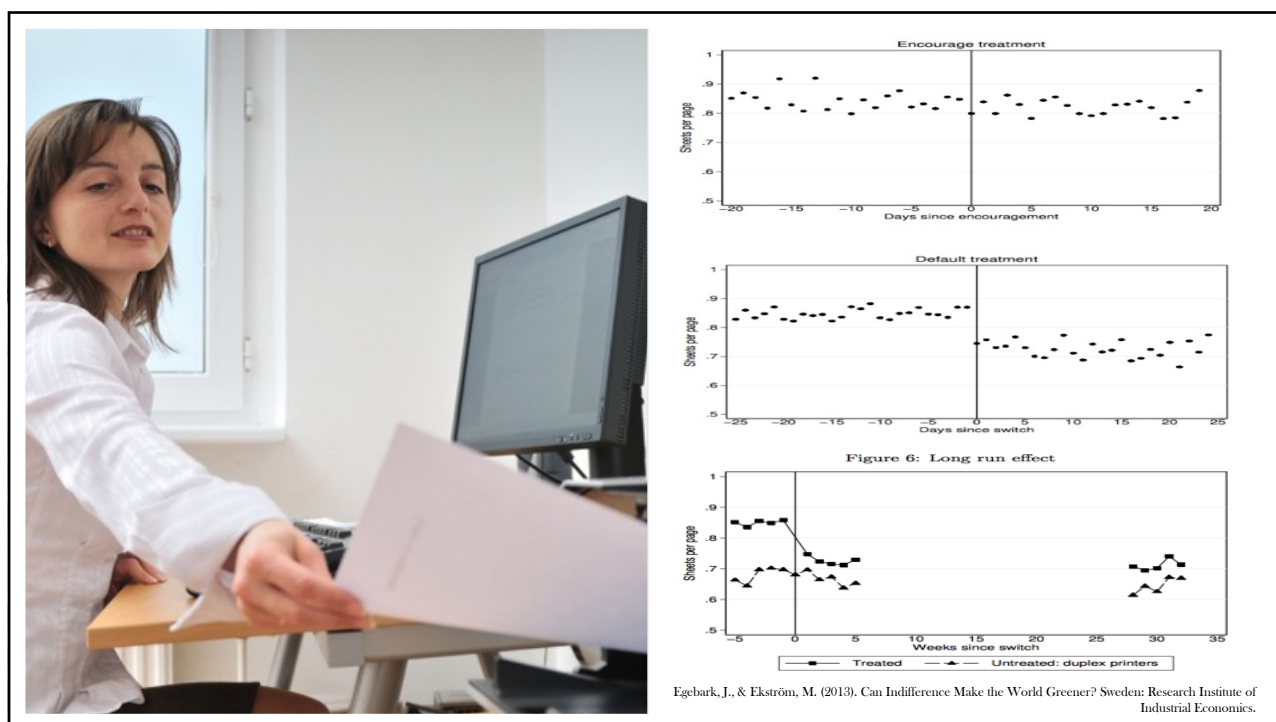
42



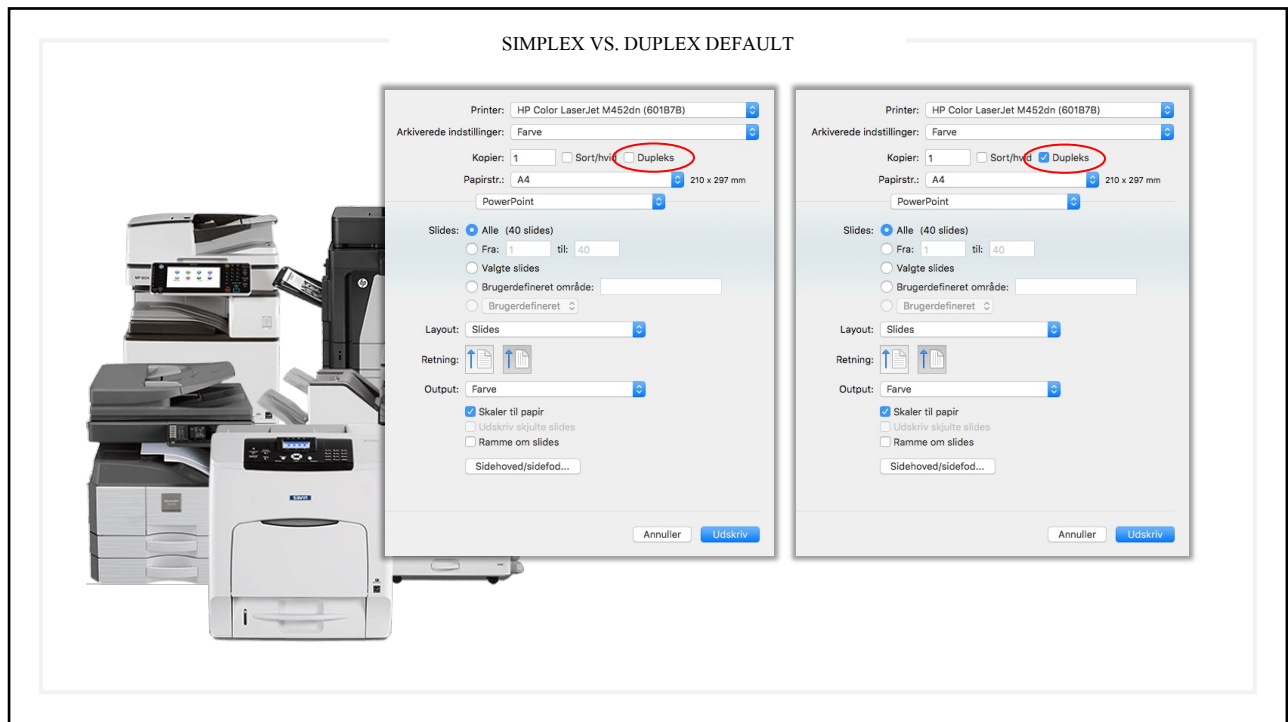
43



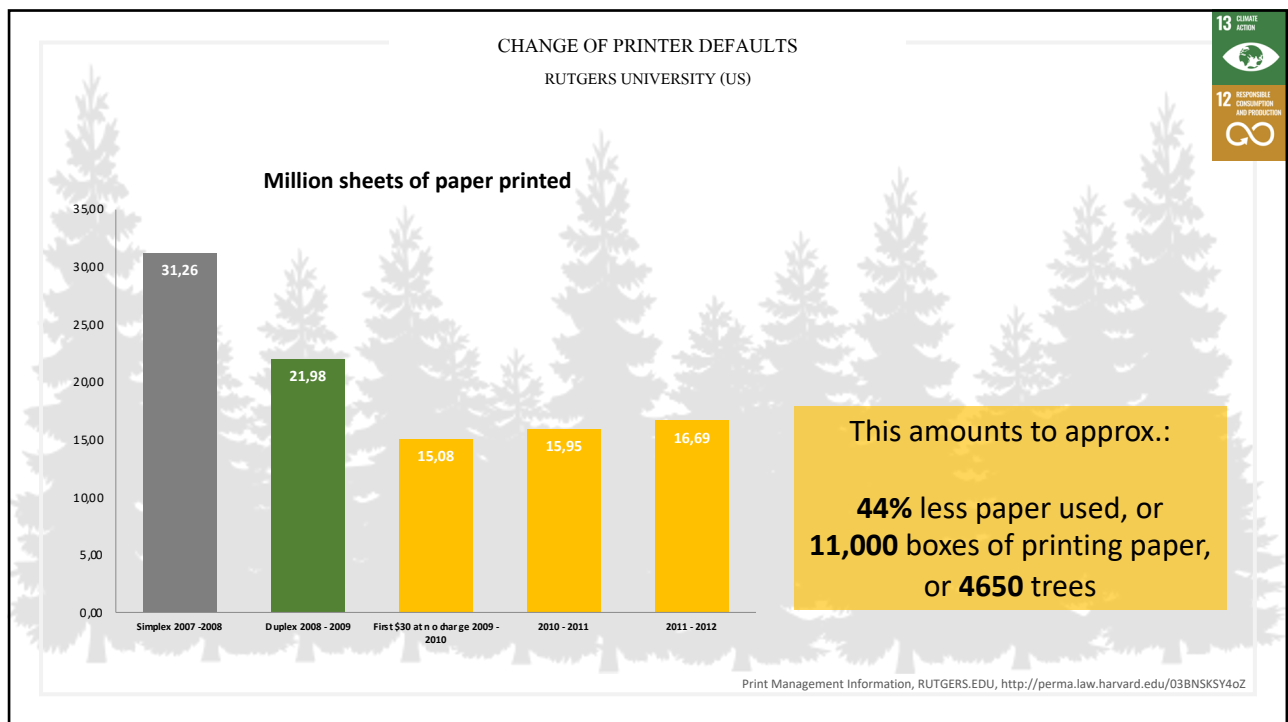
44



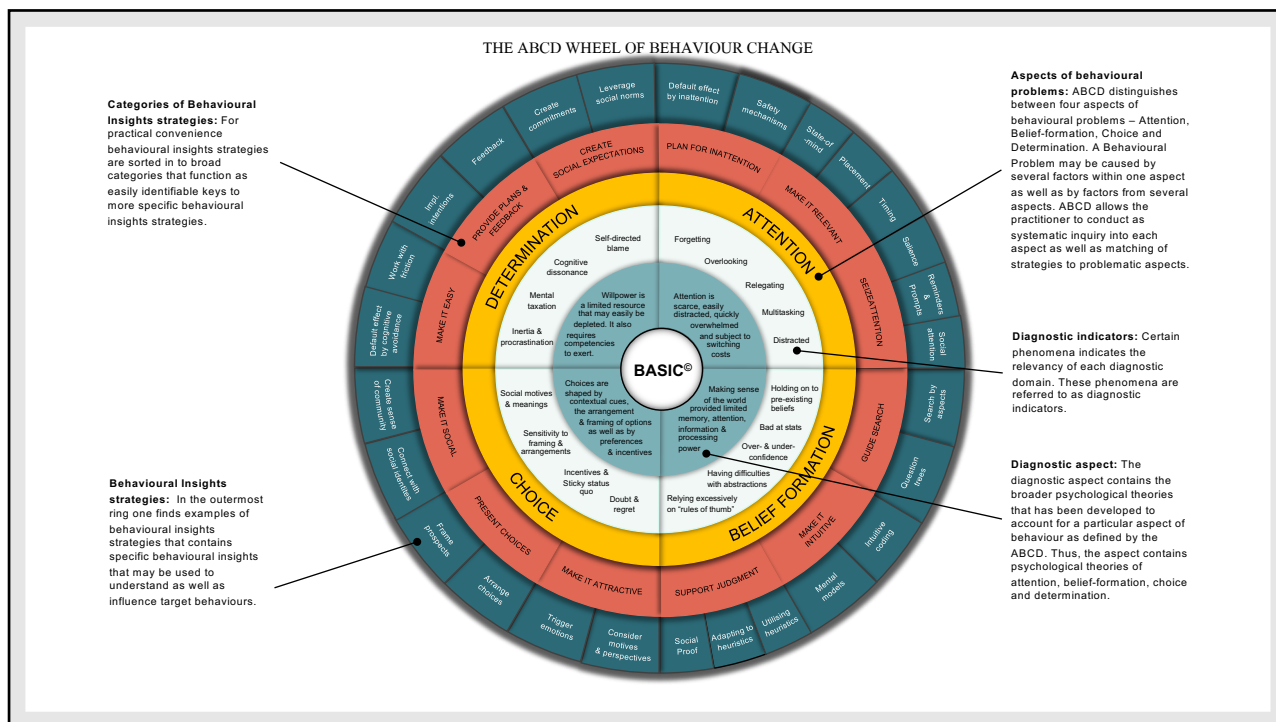
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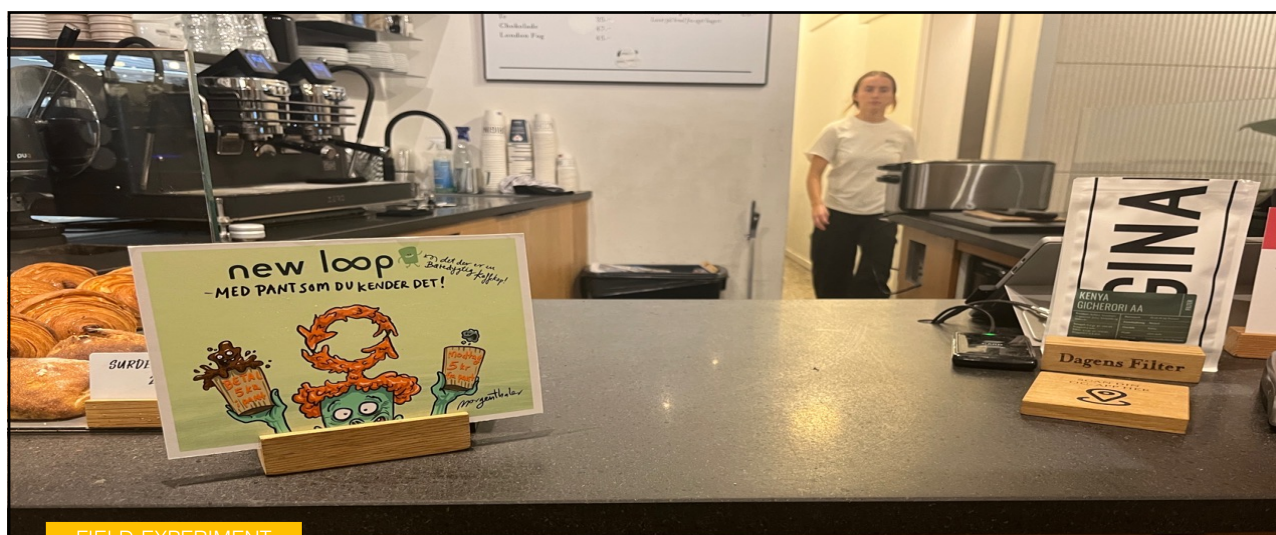
46



47



48



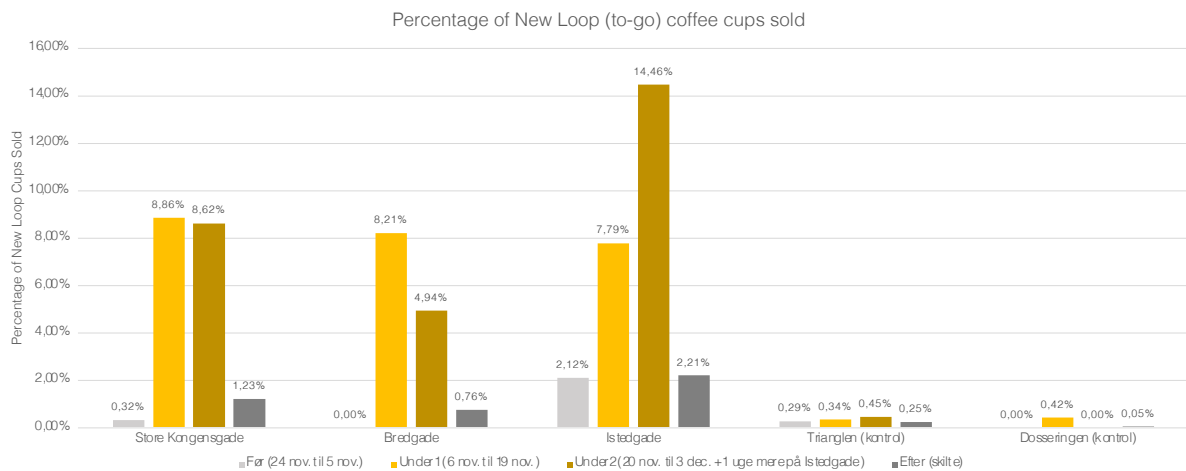
FIELD-EXPERIMENT

Reusable coffee cups "New Loop"

Hansen PG, Katholm, CB. & Jacobsen, AM. (2024). Promoting reusable cups in cafés. *The Swedish Environmental Agency*, 2024.

49

The percentage of **coffee sold in reusable cups** increased by **btw. 5-12 %pt.** in cafés when using relevant prompt



Hansen PG, Katholm, CB. & Jacobsen, AM. (2024). Promoting reusable cups in cafés. *The Swedish Environmental Agency*, 2024.

50



FIELD-EXPERIMENT

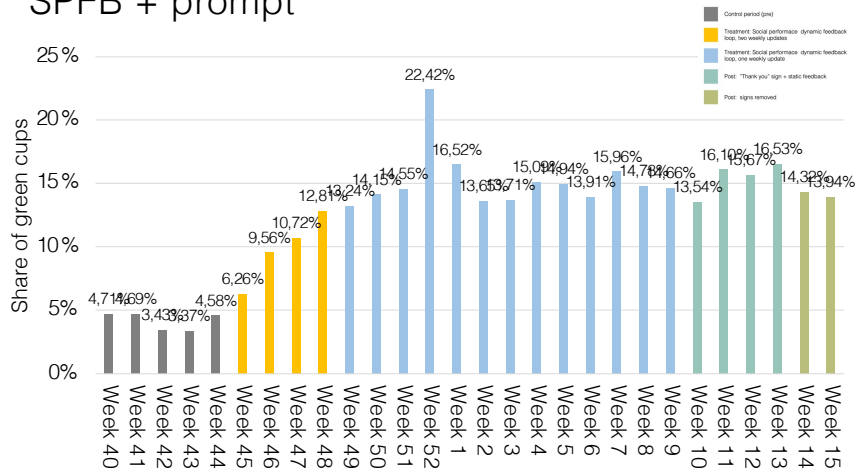
Reusable coffee cups: Nordea Headquarters

Hansen PG, Katholm, CB. & Jacobsen, AM. (2024). Promoting reusable cups in cafés. *The Swedish Environmental Agency*, 2024.

51

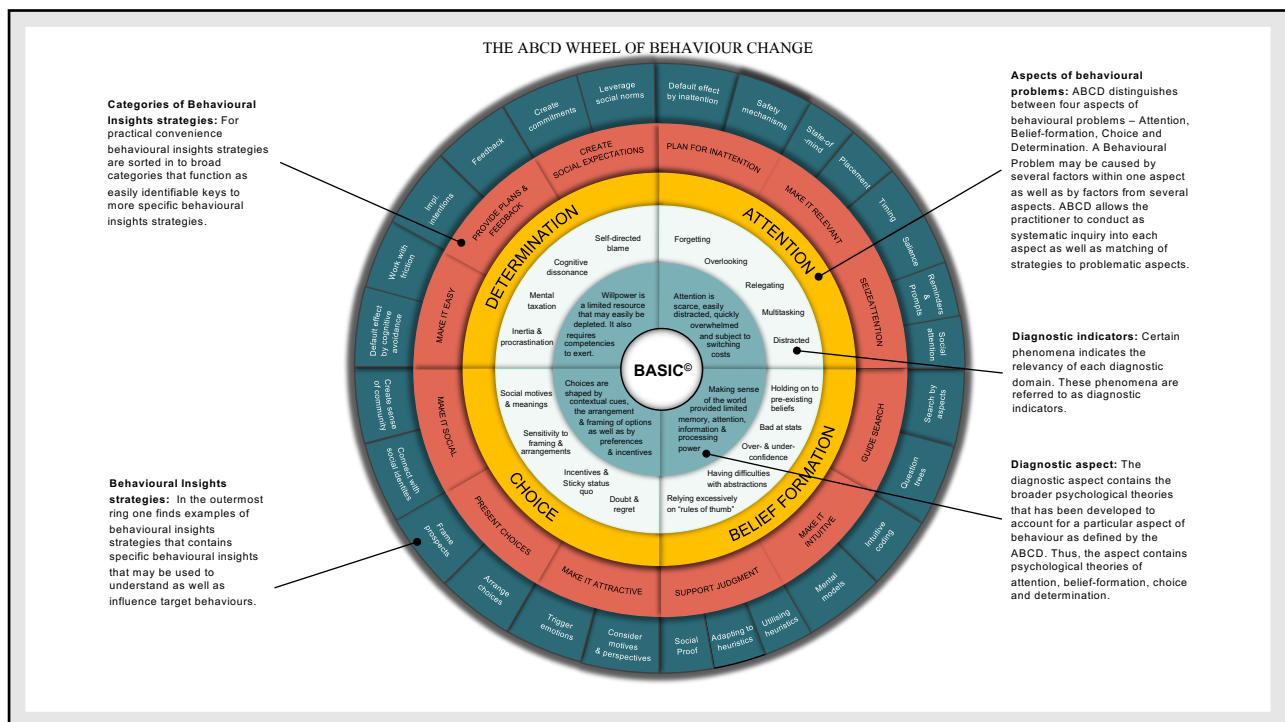


Share of employees who either use a reusable cup went up from 4,5% to 16% in cafés using SPFB + prompt

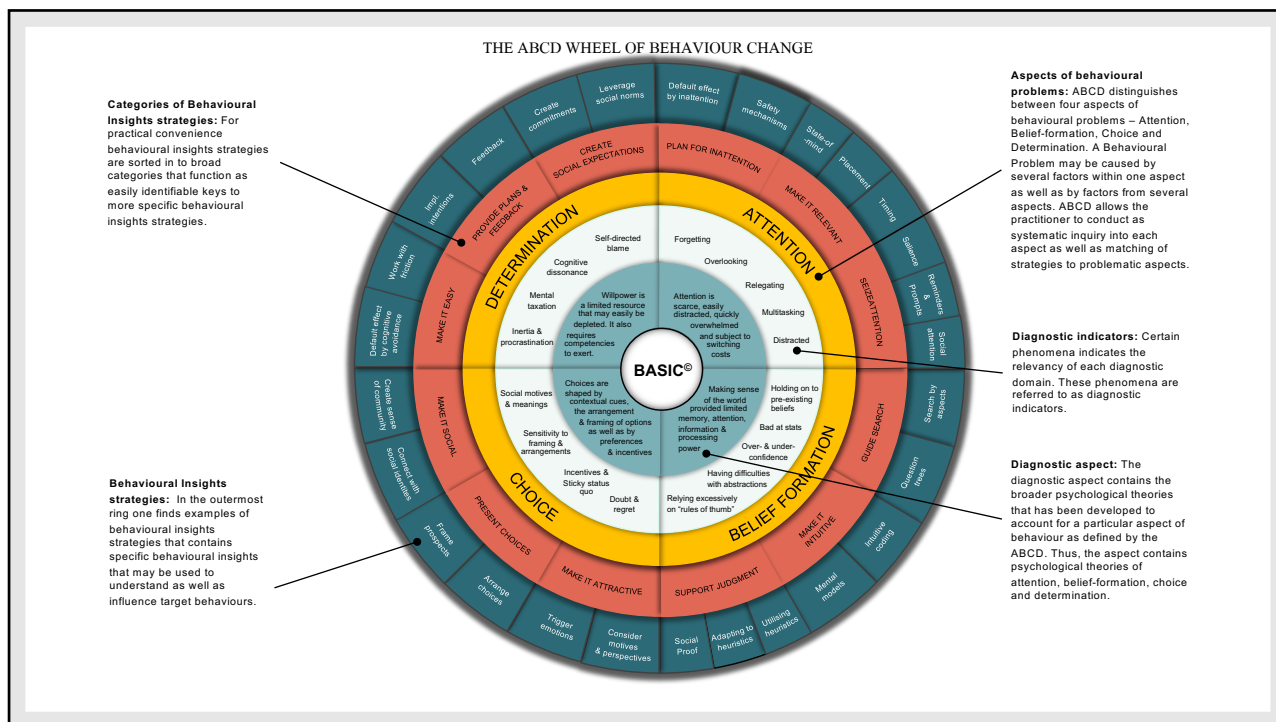


Hansen PG, Katholm, CB. & Jacobsen, AM. (2024). Promoting reusable cups in cafés. *The Swedish Environmental Agency*, 2024.

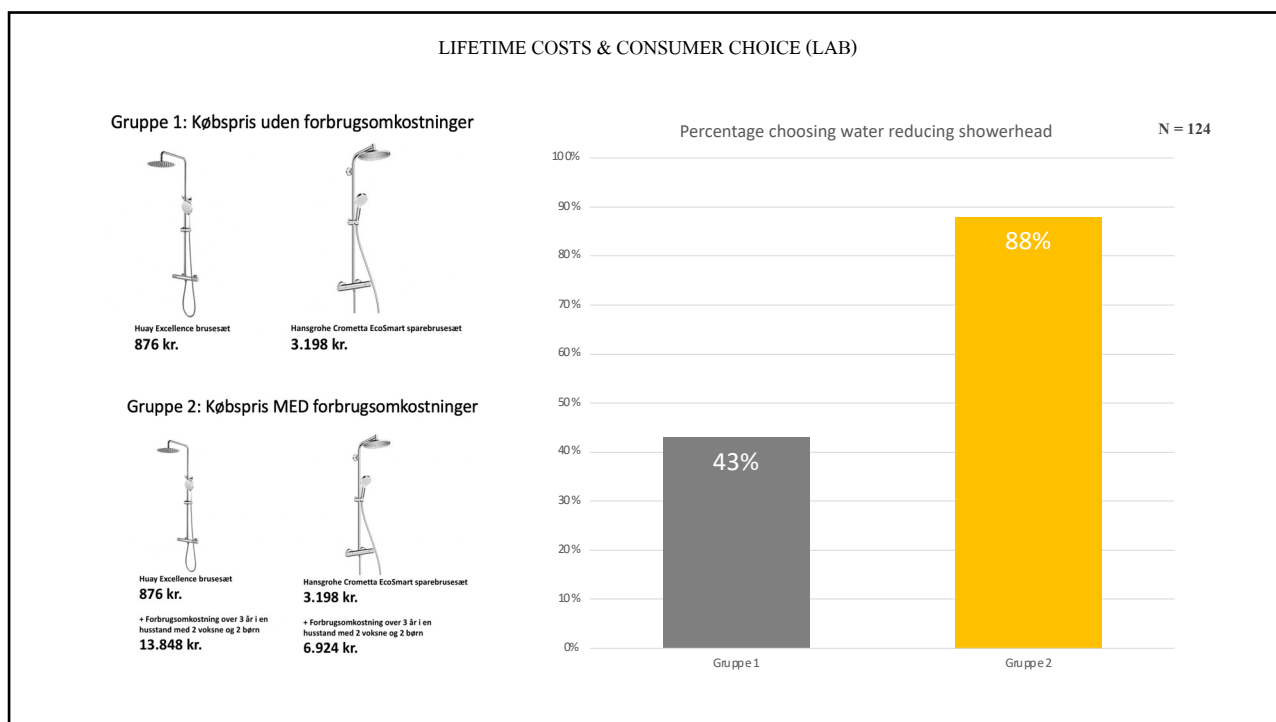
52



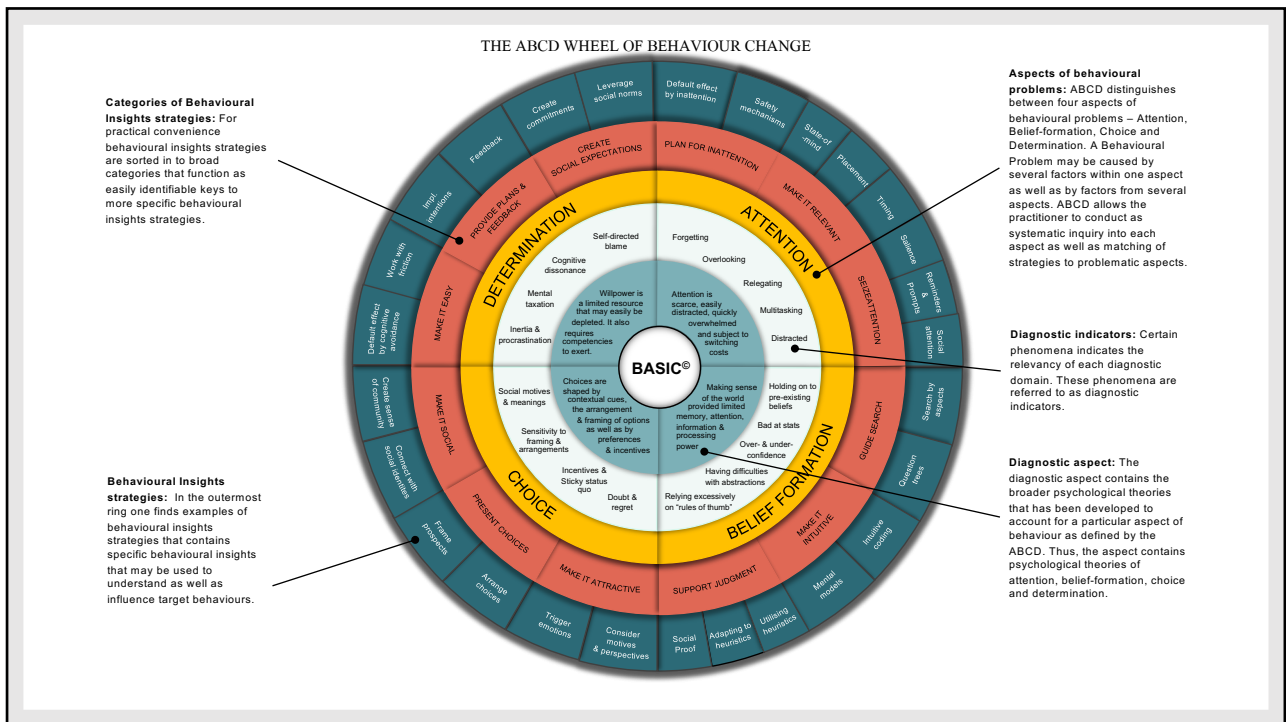
53



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ERSTE ESG CEE CONFERENCE 2024

MAY 6, ERSTE CAMPUS VIENNA

Nudging on-time performance in CPH Airports

59



60

WSJ | Barron's | MarketWatch | Bloomberg

▼ DJIA Futures 38230.00 -0.02% ▲ S&P 500 Futures 3766.50 -0.02% ▼ Nasdaq Futures 11772.00 -0.04% ▼ SSE Index 3019.47 -0.49% ▲ Stoxx 600 305.25 0.14% ▲ Crude

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In Tests, Scientists Try to Change Behaviors

Behavioral scientists look for environmental 'nudges' to influence how people act

By Shirley S. Wang [Follow](#)


July 28, 2014 7:09 pm ET

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Researcher Johannes Schuldt-Jensen (in middle) records passenger behavior at Copenhagen airport.

ILLUSTRATION: LAERKE POSSELT FOR THE WALL STREET JOURNAL

61



FIELD-EXPERIMENT

On-time Performance in Finger C: ‘Next-of-Kin’

Hansen, P.G., Hulgaard, K. & Jensen, JS. (2015). On-time performance & Customer Satisfaction in Copenhagen Airports: A series of boarding related experiments and results, iNudgeyou – The Applied Behavioural Science Centre & CPH Air.

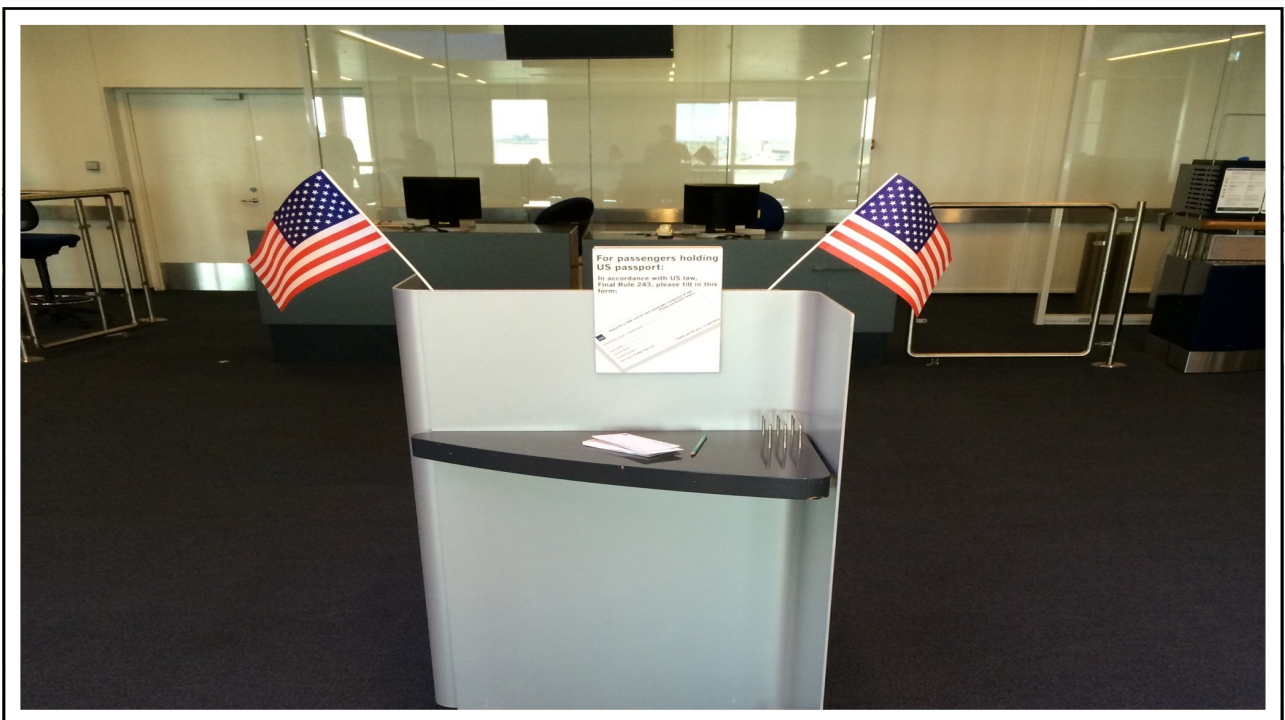
62



63



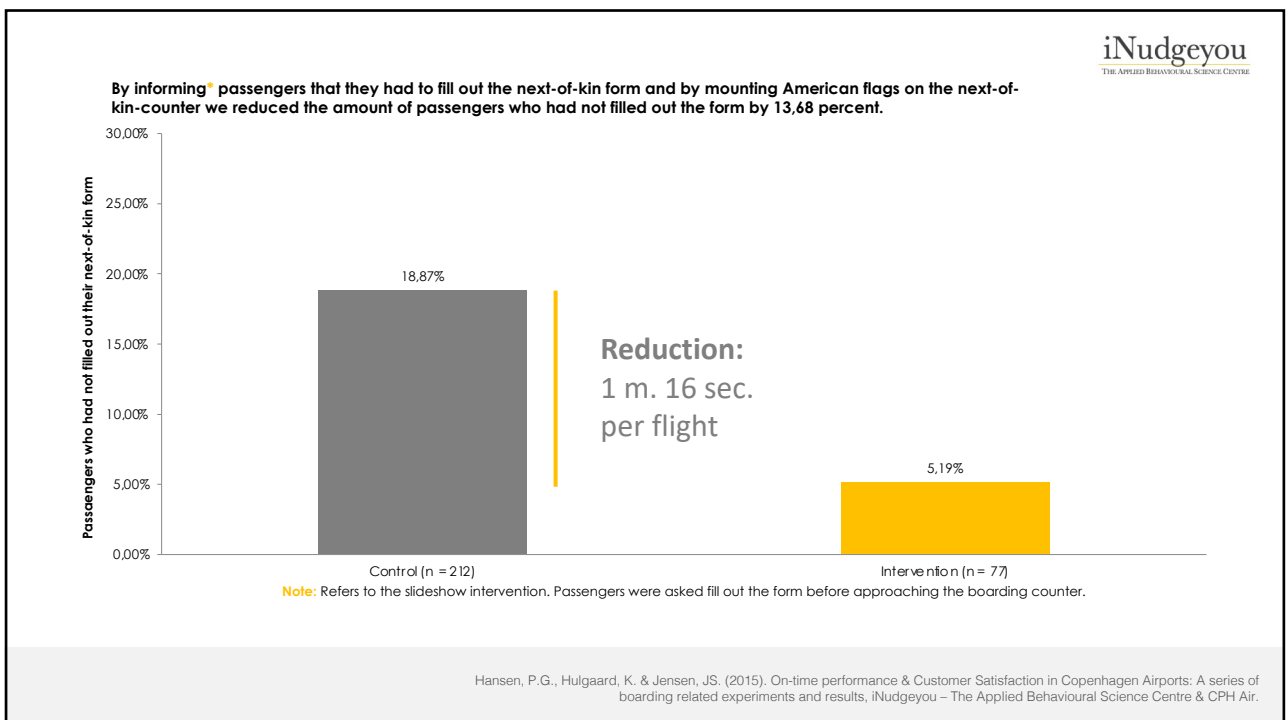
64



65



66



67



68



CONCEPT

On-time Performance in Finger C: Boarding Procedure

Hansen, P.G., Hulgaard, K. & Jensen, J.S. (2015). On-time performance & Customer Satisfaction in Copenhagen Airports: A series of boarding related experiments and results, iNudgeyou – The Applied Behavioural Science Centre & CPH Air.

69



70

Please locate your row number

Boarding Pass

PNR		Notes							
AR4FX		SK*B ETKT							
Flight	Date	At	Class	From	To	Gate	Seq#	Seat	Boarding At
SK903	28MAY	1040	C	Stockholm	New York	F62	BN16	01A	10
UA9369				ARN	ENR				

Ticket number 0165735808144 Tag numbers SK790639-40 2 bags 18 k

SAS

71

Boarding Process:				
Passengers on the list NOT YET BOARDING Please stay seated	Business class NOT YET BOARDING Please stay seated	Plus, gold, diamant, pandium NOT YET BOARDING Please stay seated	Rows: 31-46 NOT YET BOARDING Please stay seated	All remaining passengers NOT YET BOARDING Please stay seated

72

Boarding Process:				
Passengers on the list SOON BOARDING Please standby	Business class NOT YET BOARDING Please stay seated	Plus, gold, diamant, pandium NOT YET BOARDING Please stay seated	Rows: 31-46 NOT YET BOARDING Please stay seated	All remaining passengers NOT YET BOARDING Please stay seated

73

Boarding Process:				
Passengers on the list	Business class	Plus, gold, diamant, pandium	Rows: 31-46	All remaining passengers
NOW BOARDING	SOON BOARDING	NOT YET BOARDING	NOT YET BOARDING	NOT YET BOARDING
Please step forward	Please standby	Please stay seated	Please stay seated	Please stay seated

74

Boarding Process:				
Passengers on the list	Business class	Plus, gold, diamant, pandium	Rows: 31-46	All remaining passengers
PLEASE MOVE TO THE FRONT OF THE LINE	NOW BOARDING	SOON BOARDING	NOT YET BOARDING	NOT YET BOARDING
Please skip queue	Please step forward	Please standby	Please stay seated	Please stay seated

75

Boarding Process:				
Passengers on the list PLEASE MOVE TO THE FRONT OF THE LINE Please skip queue	Business class BOARDED	Plus, gold, diamant, pandium NOW BOARDING Please step forward	Rows: 31-46 SOON BOARDING Please standby	All remaining passengers NOT YET BOARDING Please stay seated

76

Boarding Process:				
Passengers on the list PLEASE MOVE TO THE FRONT OF THE LINE Please skip queue	Business class BOARDED	Plus, gold, diamant, pandium BOARDED	Rows: 31-46 NOW BOARDING Please step forward	All remaining passengers SOON BOARDING Please standby

77

Boarding Process:

Passengers on the list	Business class	Plus, gold, diamant, pandium	Rows: 31-46	All remaining passengers
PLEASE MOVE TO THE FRONT OF THE LINE Please skip queue	BOARDED	BOARDED	BOARDED	NOW BOARDING Please step forward

78

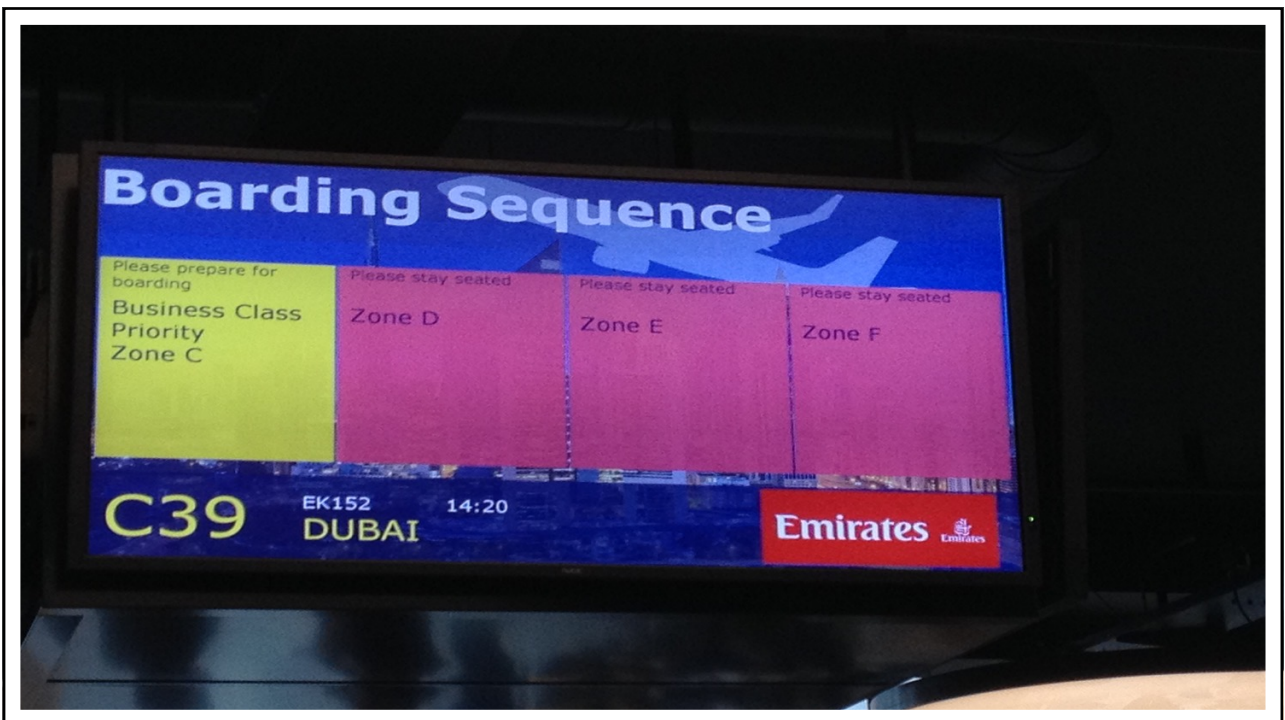
We are now boarding all remaining passengers

**Thank you for traveling with SAS -
We hope you have a pleasant flight**

79



80



81



82



FIELD-EXPERIMENT

On-time Performance in Finger C: Handling

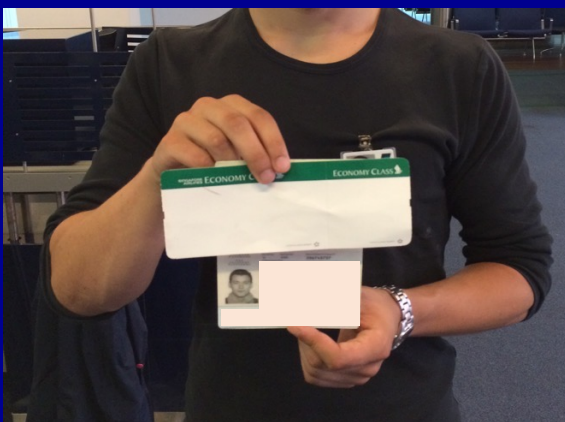
Hansen, P.G., Hulgaard, K. & Jensen, J.S. (2015). On-time performance & Customer Satisfaction in Copenhagen Airports: A series of boarding related experiments and results, iNudgeyou – The Applied Behavioural Science Centre & CPH Air.

83

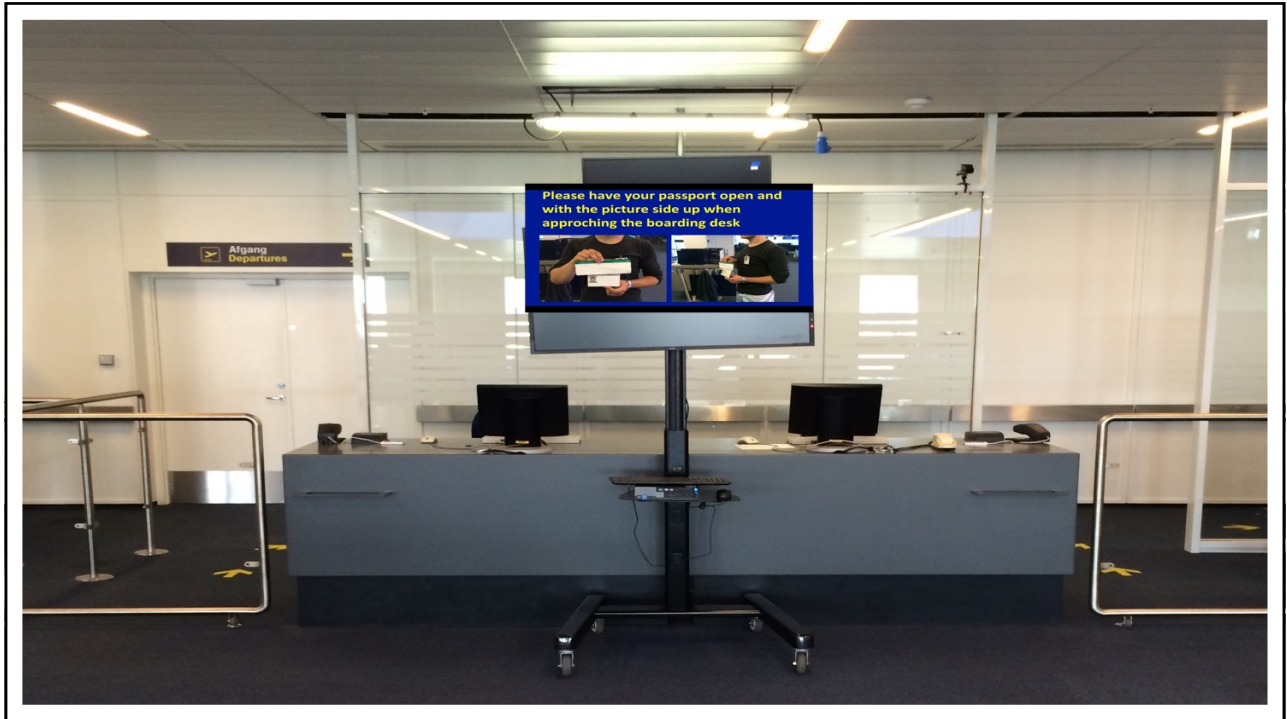


84

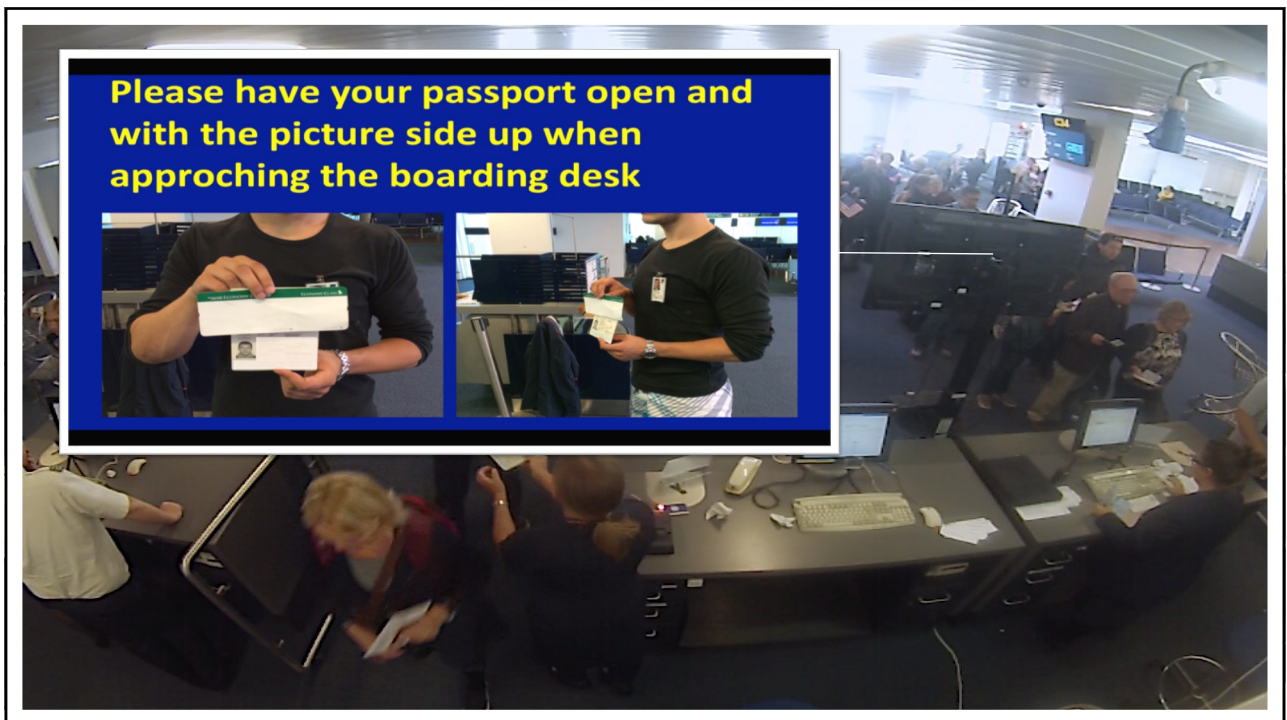
Please have your passport open and with the picture side up when approaching the boarding desk



85



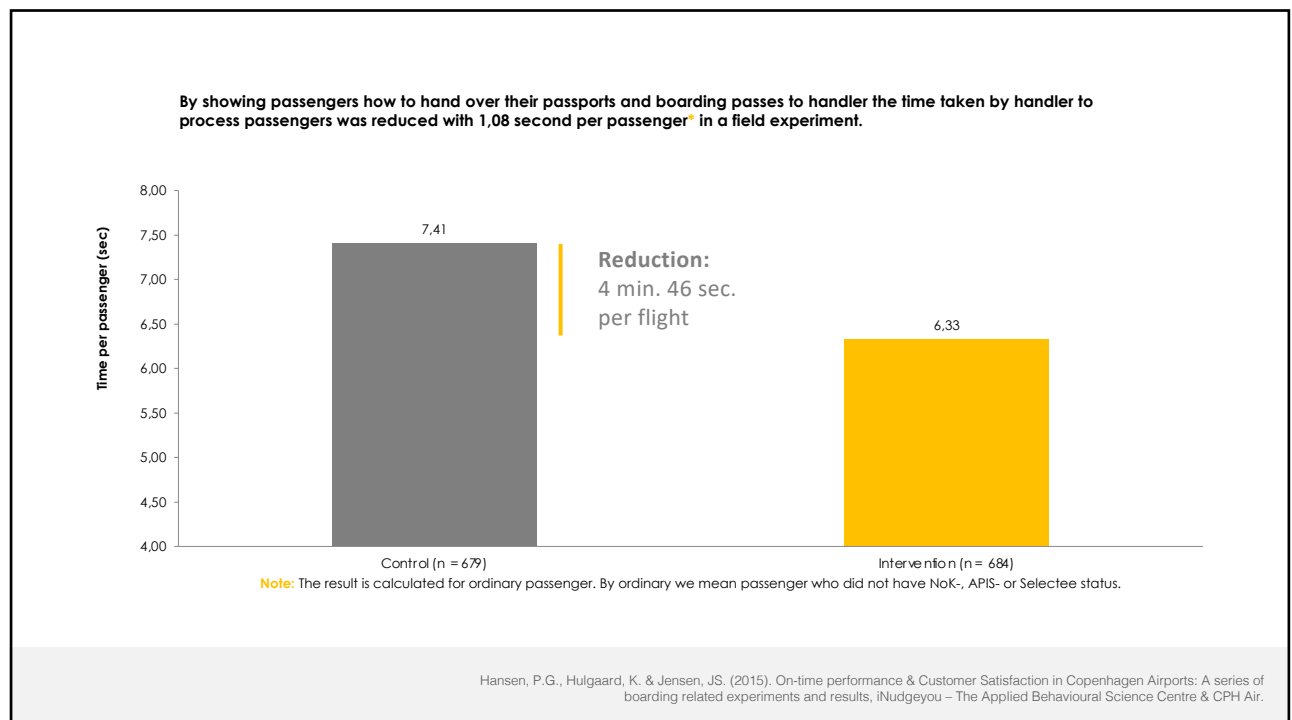
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Testimonial: Project collaboration

”

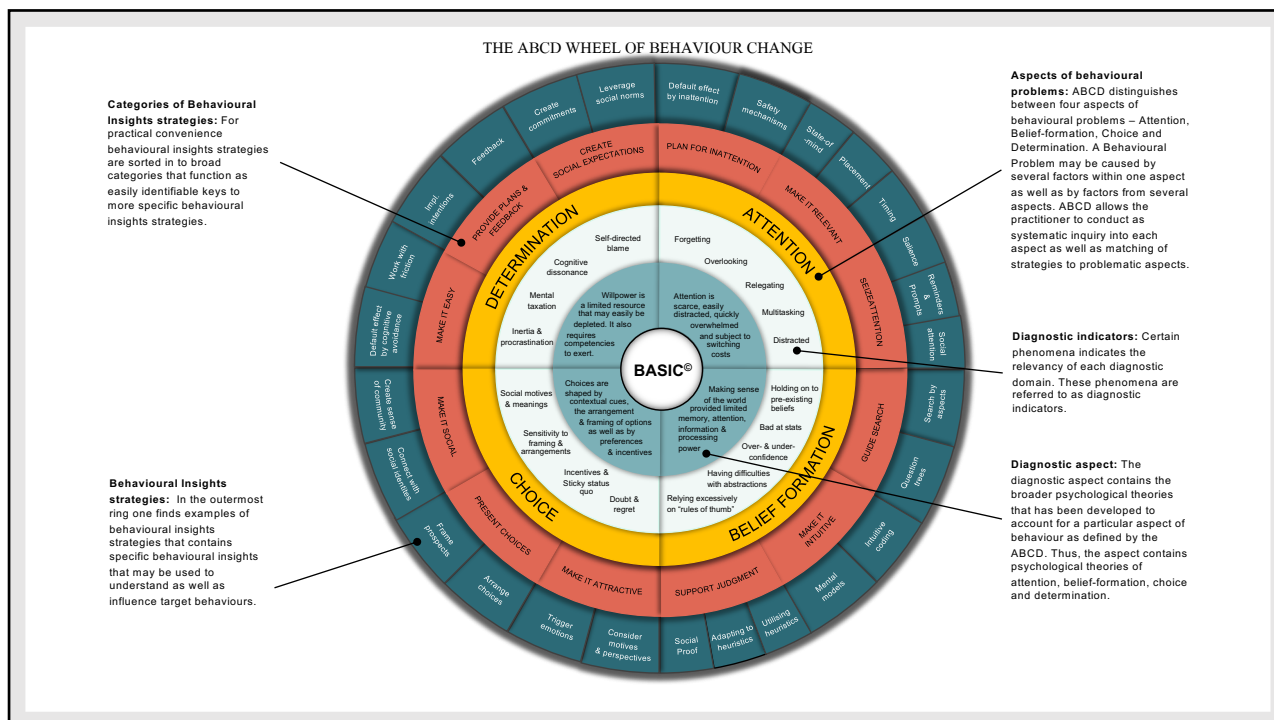


As one of the very first airports working with behaviour in a scientifically way, we were a little unsure whether it would work. But this approach works! Studies have been done at some of the boarding gates, from where SAS departs. On average, they were 10 minutes late, but after we implemented this new approach they are now 5 minutes early on each departure. That is completely crazy!

Thomas Woldbye, CEO in Copenhagen Airport

Project on boarding optimisation, 2015

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