

Behavior and Lesion Scores of Fattening Pigs Raised on Slatted Floors with Different Objects

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Why Use Enrichment Materials?

- Behavioral needs : exploring the environnement
- Focuses investigation on objects/substrates instead of conspecifics
- Reduces tail / ear biting



EU Directive 2008/120/CE



Investigation and Manipulation Activities

Inorganic / single object

Cloth

Tyre

Pipes (metal / plastic)

Balls / Toys

Salt lick

Chains

Organic / bulk

Forages (hay /silage
/beets...)

Sand / peat / soil

Mushroom compost

Straw

Organic / single object

Rope

Wood / twig

Pipe (rubber)

Adapted from Bracke, 2006

Inorganic / single object

Cloth

Tyre

Pipes (metal / plastic)

Balls / Toys

Salt lick

Chains

Organic / bulk

Forages (hay /silage
/beets...)

Compost / soil

Manure / compost

Slatted Floor :
91% Finishers in the EU
EFSA 2007

Organic / single object

Rope

Wood / twig

Pipe (rubber)

Adapted from Bracke, 2006

1. Straw in a Rack

Chains + Pipes

Straw in a Rack

2. Chain

Chains + Pipes

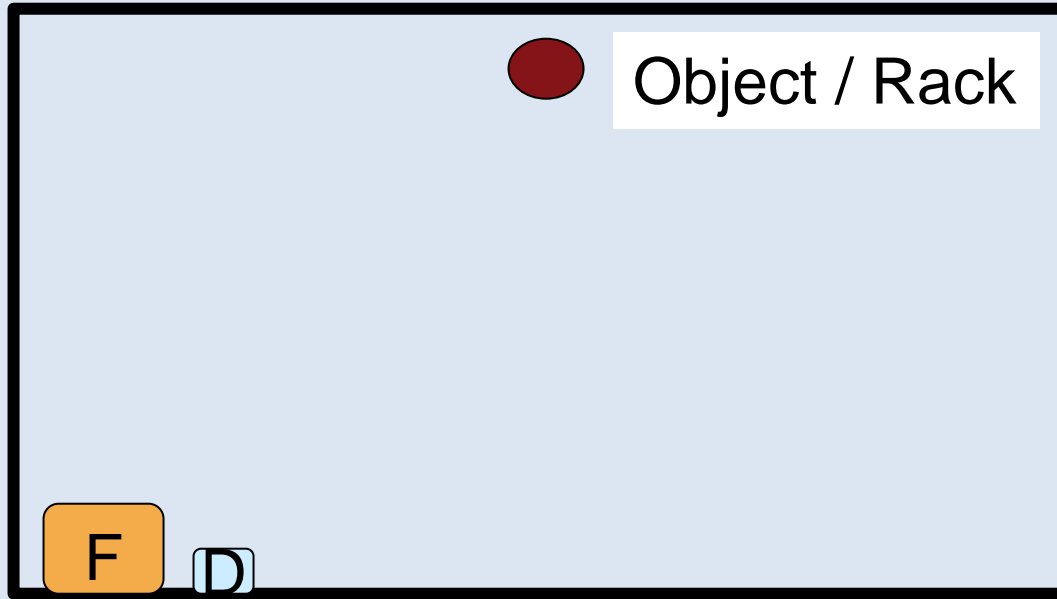
Chains
(Various Positions)

3. Wooden blocks / toy

Wooden blocks

Toy

Chain



F : Feeder
D : Drinker

Mixed Pens : 7m², 10 pigs: 5 Castrated Males
5 Females

Feed, Water : Ad Libitum

■ Behaviour

■ Scan sampling, 1 obs/ 10 minutes, 2h30

- Investigation (object / other)
- Positive social behaviour
- Negative social behaviour
- Inactivity
- Vacuum chewing
- Other

■ Lesion scoring

- Scratches / wounds
- Tail – Ear lesions



Chains + Pipes



Straw in a Rack

1. Straw in a Rack

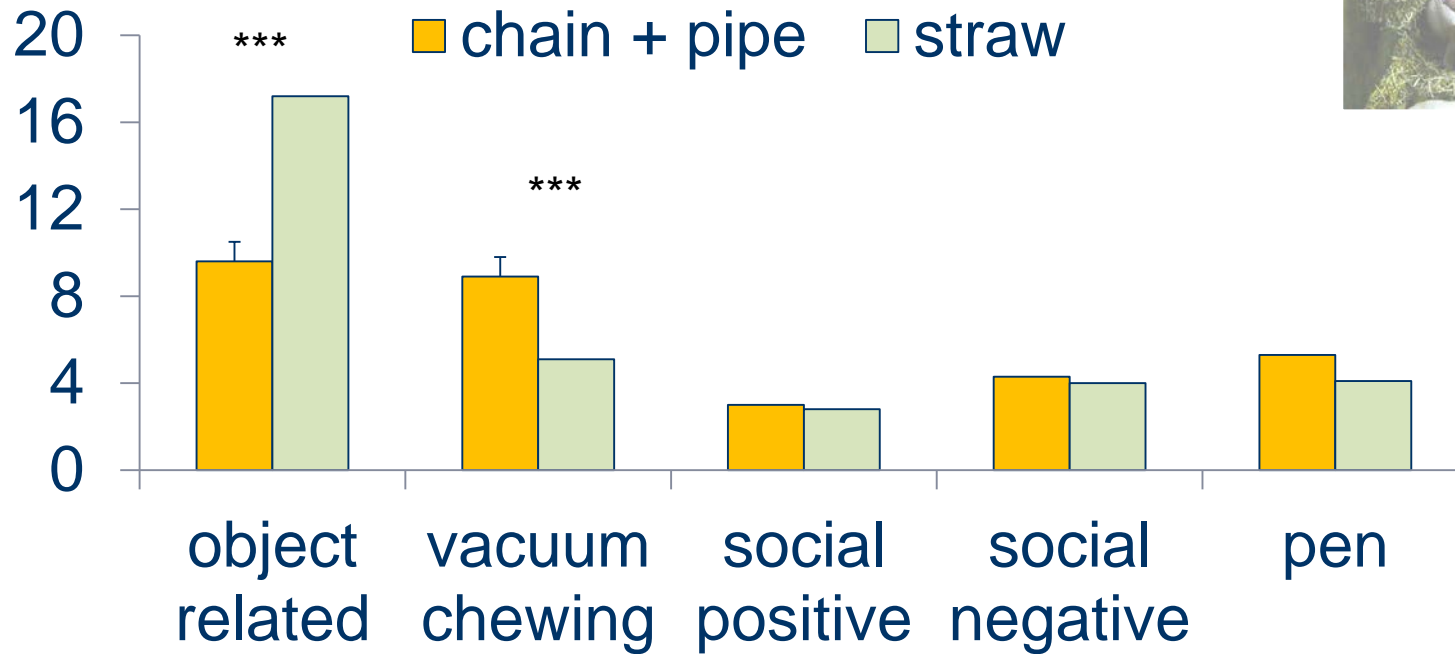


6 pens



6 pens

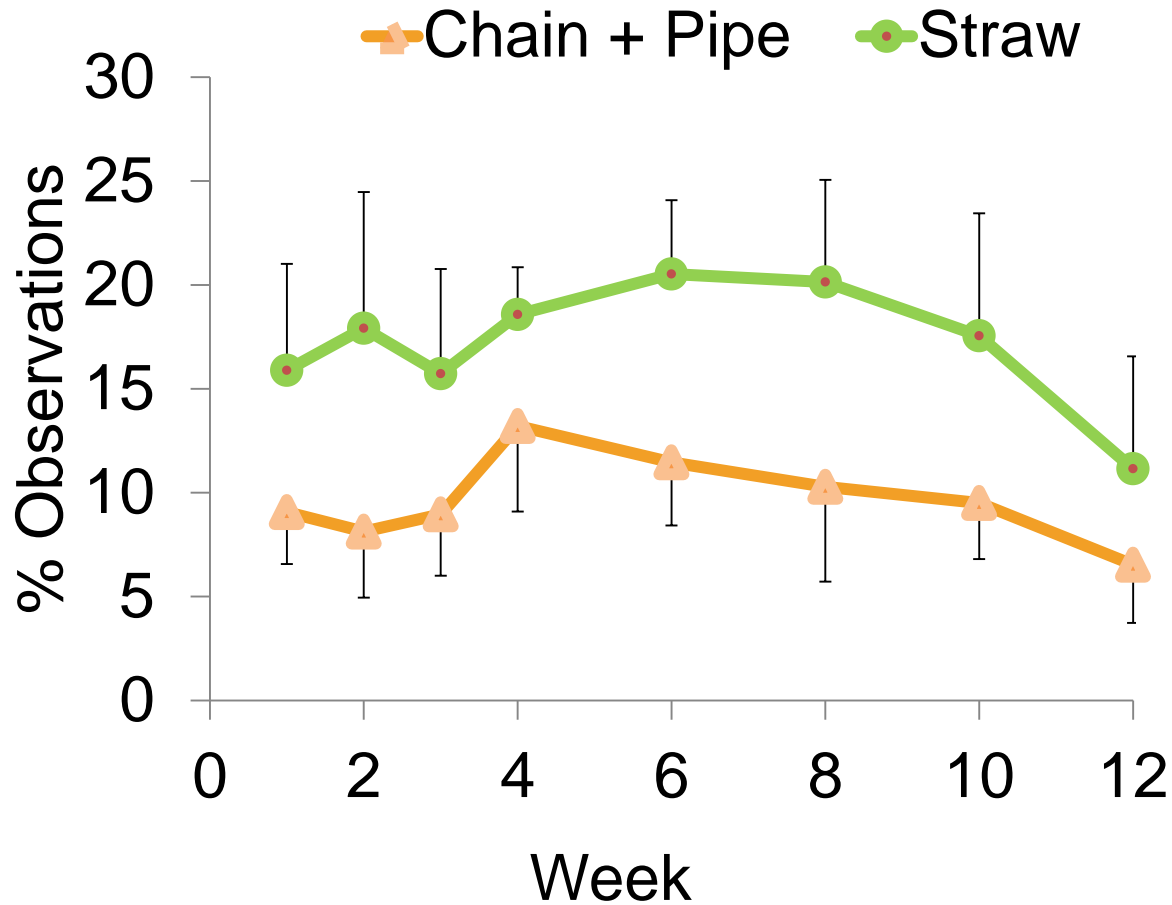
Exp 1 : Straw / Chain+pipe : Behaviour



Sitting : Straw : 8.2% > Object : 5%

Simultaneous Manipulation : Straw > Object

Exp 1 : Straw / Chain+Pipe: Activity related to Materials



**Long Term
Interest**

**Main activity :
Chewing
(70%)**

Exp 1 : Straw / Chain+pipe

Lesions score

	Pipe + chain	Straw
Lesion score	7.9	7.0
Tail lesion, nb	2	4
Lameness (mild), nb	7	9

■ Pipe + chain

- Less frequently used
- Maintained interest
- Same level of social behaviour

■ Straw

- More manipulation
- Ad lib = 35 g/pig/day
- **Not compatible with slatted floors**



Exp 2 : Does the Position of the Chain Affect its Attractivness?



CS : Snout level

3C : 3 Chains fixed to the floor



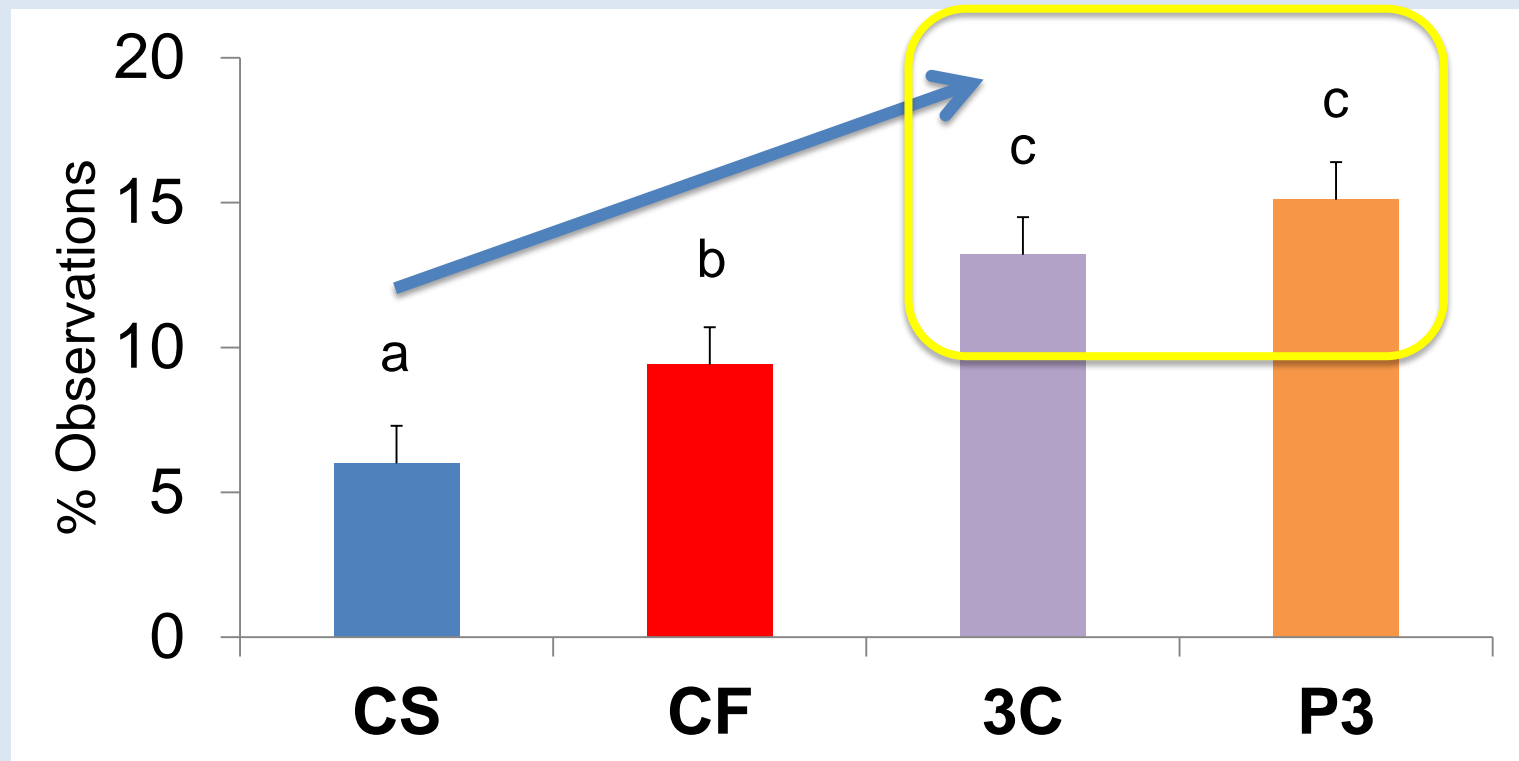
CF : 5 cm above the Floor

**P3 :
3 chains+pipes**

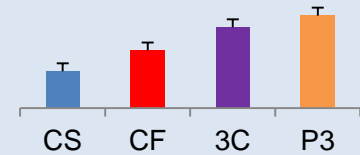
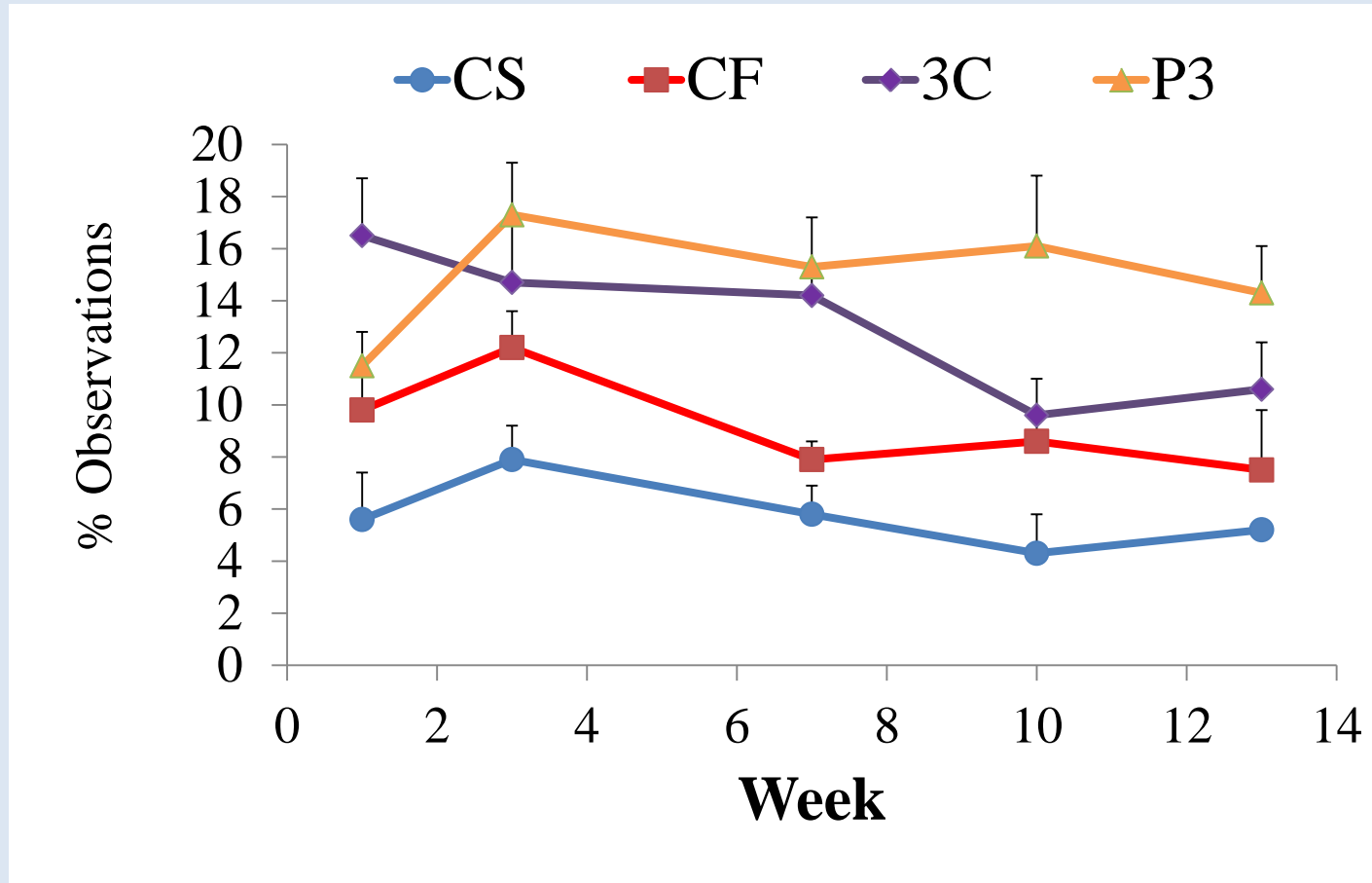


*6 pens /
treatment*

Exp 2 : Activity related to objects



Exp 2 : Activity related to Objects



Differences between treatments persist

Exp 2 : Body and Tail Lesions



CS

CF

3C

P3

Lesion score

21.6

20.8

20.5

21.5

**Tail lesion *
(severe), %**

1.7 a

13.3 b

3.4 a

1.7 a

**Lameness *
(severe), %**

3.4

3.4

1.7

0

** Batch 2*

- Significant differences in chain manipulation
- Position more important than the object itself

Exp 3 : Chain with/without Object ? Organic/inorganic Objects?

Chain



CF

Chain + ball



CB

**Wooden
block fixed**



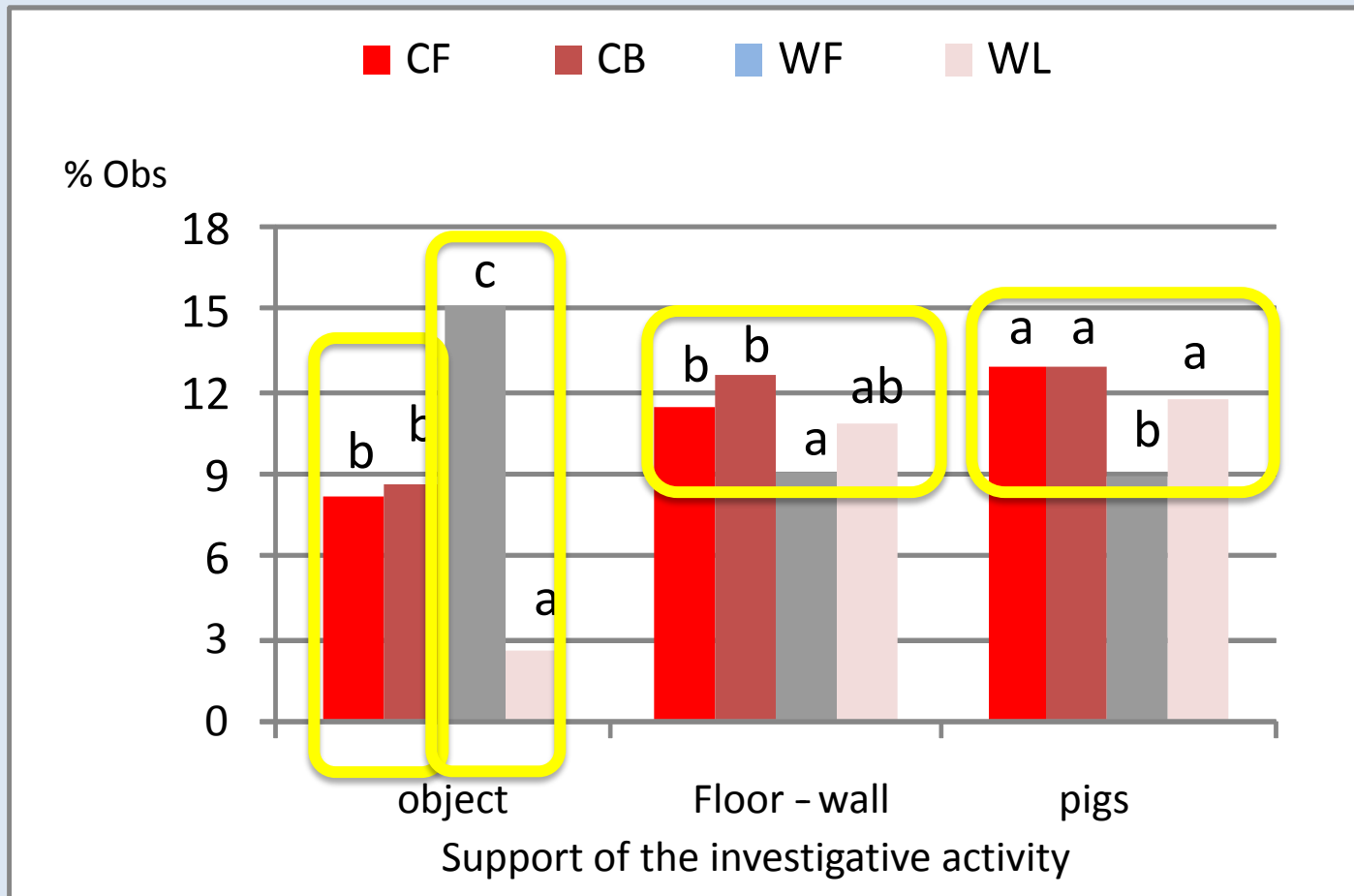
WF

**Wooden
block loose**



WL

Exp 3 : Activity related to Objects



Exp 3 : Body and Tail Lesions

	CF	CB	WF	WL
Lesion score	16.7	15.7	15.4	17.8
Tail lesion (mild ⁽¹⁾), %	30 a	28 a	13 b	20 ab
Lameness⁽²⁾, %	2	1	3	1

1. *Superficial biting*

2. *Mild or severe*

- Chain + Toy / Chain : no differences in manipulation
- Organic / inorganic : no impact
- Position more important than the object itself

- ~~Long straw in a rack, ad lib.~~
- Chain+pipe
- Wooden block (fixed)
- Chains (on the floor)
- Chain (5 cm ab. floor)
- Chain + ball (5cm)
- Chain (snout level)
- Wooden block (loose)

Investigation
Manipulation

Lesions

Feasibility

+

-

Appropriate Material :
A compromise between
attractiveness and
feasibility

-

+

Thank you for your attention



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