



Pigs & Welfare

Time evolution of suckling piglets' behaviour in farrowing crates

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Situation of the problem

- Pigs are often housed in barren environments
- Pigs show explorative behaviour
 - => need for rooting materials
 - => possibly already starts in the farrowing crate
- Directed to pen mates and pen fittings when no material is provided
- Rooting material = environmental enrichment



Environmental enrichment?

- Improving the biological function of animals by adjusting the environment
- Characteristics effective enrichment for pigs:
 - Flexible, complex, destructable, odour, edible (Van de Weerd et al., 2003)
- Loss of interest!





Types of enrichment

- Social enrichment
- Objects (ball)
- Sensory enrichment
- Substrates (straw, peat, hay, shredded paper,...)





Legislation

- European Directive 2001/93/EC:
“Pigs must have permanent access to a sufficient quantity of material to enable proper investigation and manipulation activities, such as straw, hay, wood, sawdust, mushroom compost, peat or a mixture of such, which do not compromise the health of the animals”

=> Farrowing crate



Aim of enrichment

- Suckling piglets
 - Decreasing frustration and aggression
 - Increasing play behaviour
 - Rooting and investigative behaviour
- Sow
 - Stimulating maternal behaviour
 - Enabling nest building behaviour
 - Decreasing unwanted/stereotypical behaviours



Aim of this study

- Development of explorative and play behaviour in suckling piglets
- Optimal age to introduce enrichment?
- To which object is explorative behaviour directed to (pen fittings, sow, pen mates)?





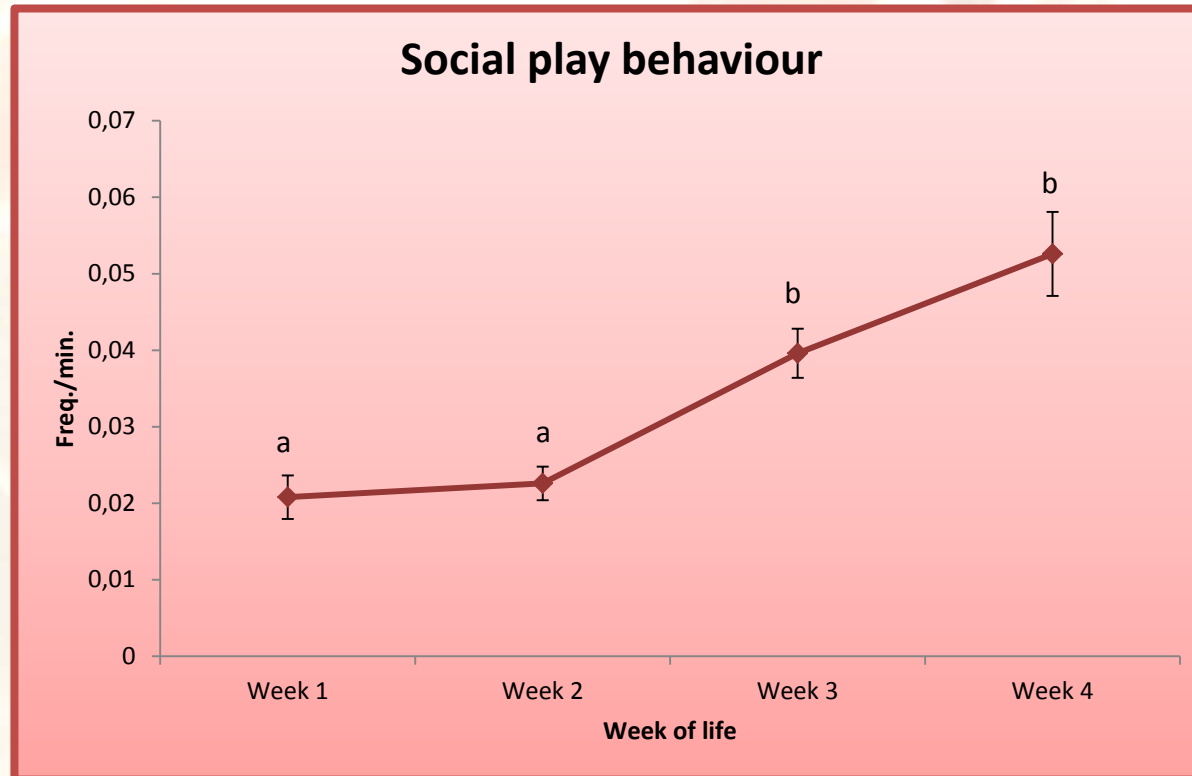
Materials and methods

- 22 litters: 227 piglets (116 males, 111 females)
- Behavioural observations: Monday, Tuesday and Friday
- Both morning and afternoon
- Scan sampling method: 5x1 min, using an ethogram based on Hay et al. (2003)
- Statistical analysis: SAS (logistic mixed model)



Results

- Social play behaviour:

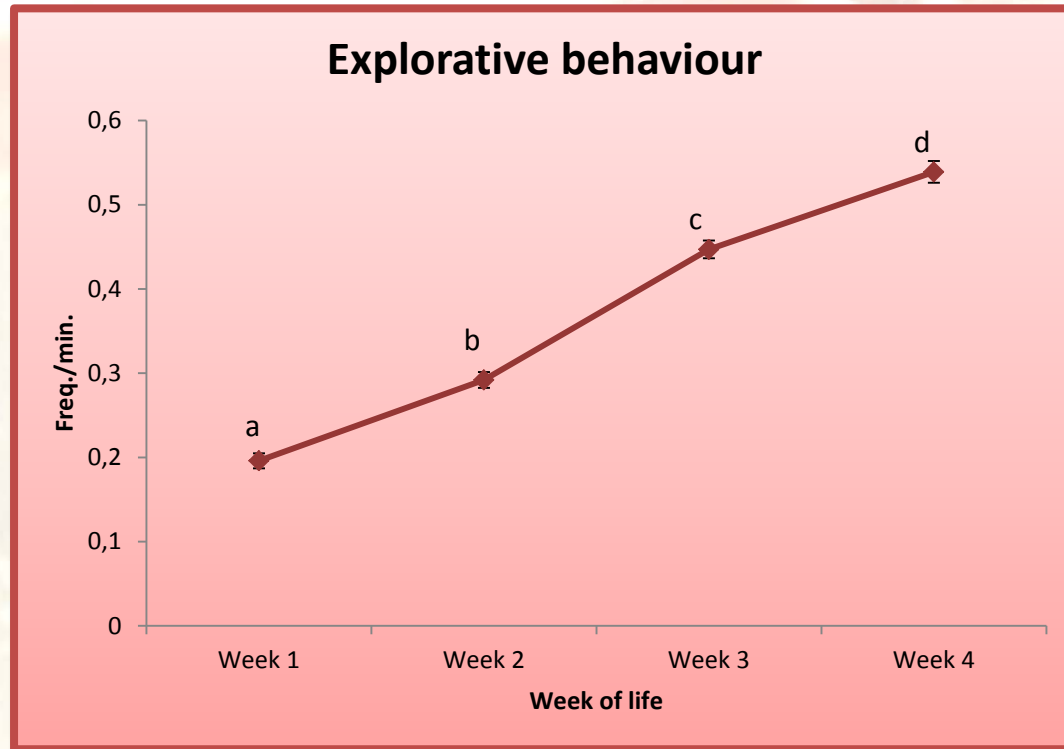


=> Increase with the age



Results

- Explorative behaviour:



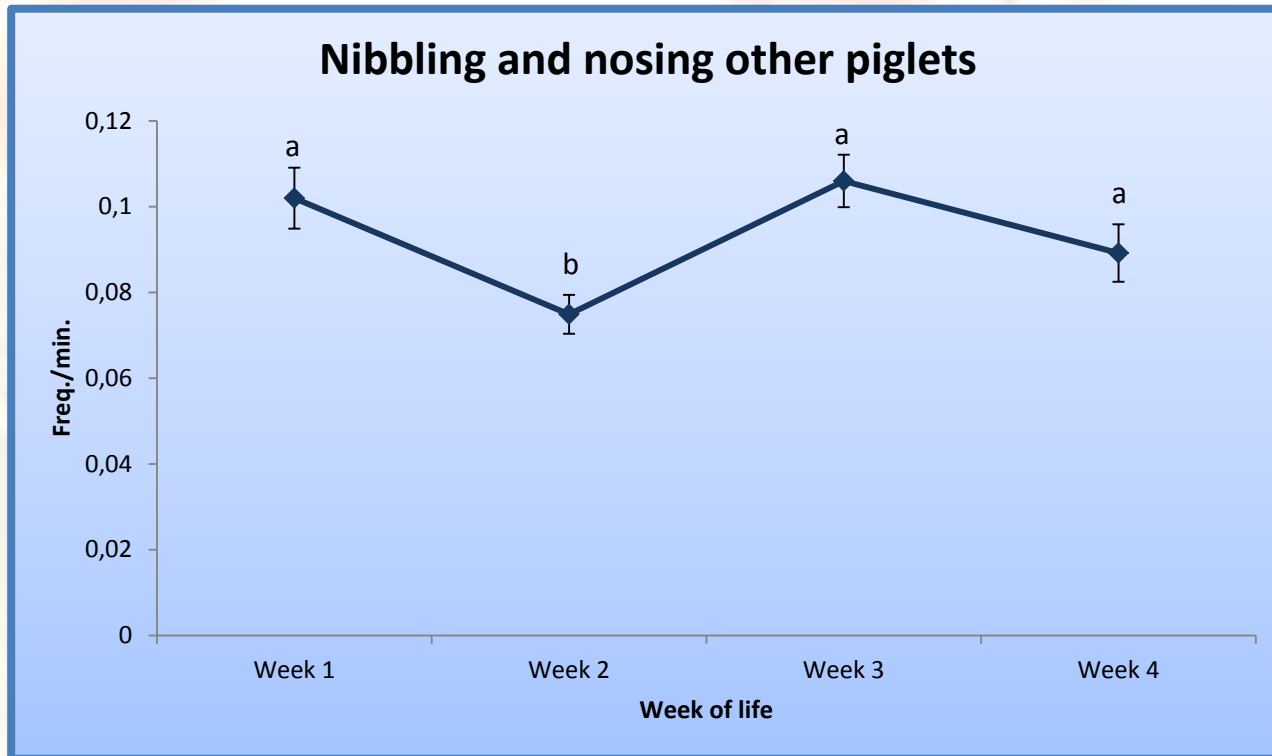
⇒ Increases with the age

⇒ Already seen during the first week of life



Results

- Nibbling/nosing other pigs:

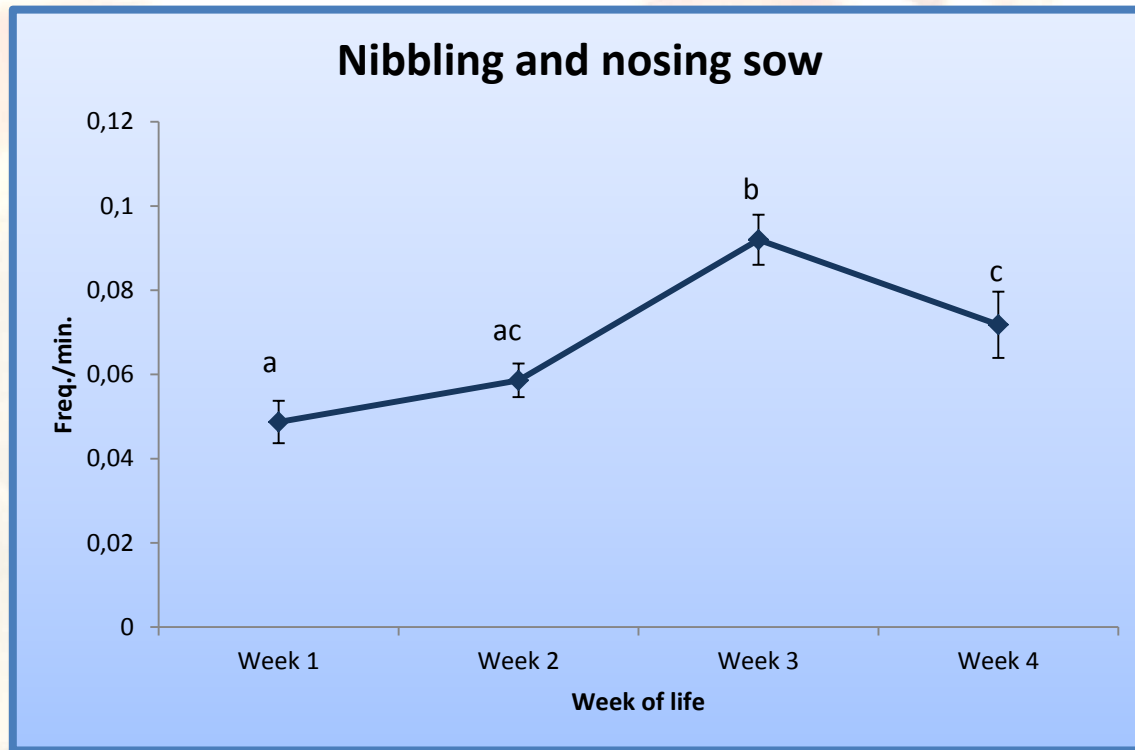


=>Does not increase with the age



Results

- Nibbling/nosing sow:



=> An increase in the third week of life



In conclusion...

- Piglets start exploring the crate at an early age
- Introduction when piglets are one week old?
- Note: interaction of piglets with substrates before this age?