

Trust in Requirements Elicitation: How Does it Build, and Why Does it Matter to Requirements Engineers?

Corentin BURNAY
University of Namur, department
of business administration

Monique SNOECK
KU Leuven (KUL)
Department of decision sciences and
information management



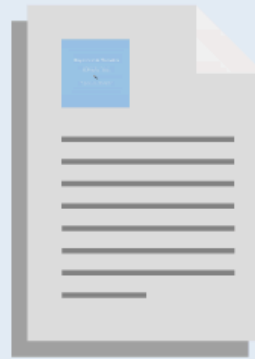
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KU LEUVEN

Presented by Sarah Bouraga
University of Namur, Belgium

Requirements Engineering

Defining, documenting and
maintaining requirements of
an information systems



Requirements Elicitation

Collecting requirements of an information system from users, customers and other stakeholders



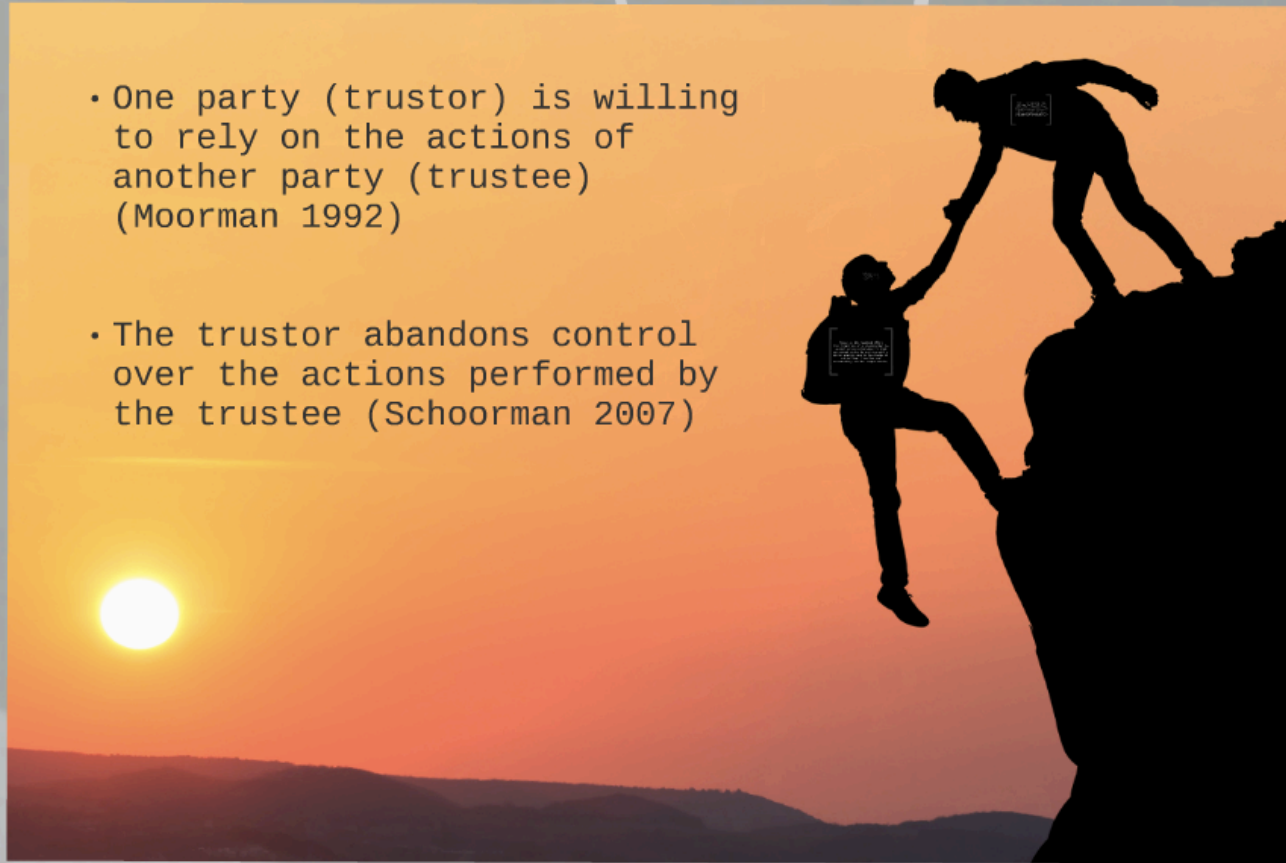
Relies heavily on interaction and communication with stakeholders

Trust



Trust

- One party (trustor) is willing to rely on the actions of another party (trustee) (Moorman 1992)
- The trustor abandons control over the actions performed by the trustee (Schoorman 2007)



Toward a Research Question :

- The trustor is uncertain about the outcome of the other's actions; they can only develop and evaluate **expectations**
- The uncertainty involves the risk of failure or harm to the trustor if the trustee will not behave as desired
- *Research question: Does Trust/distrust influence the quality of Requirements Elicitation?*



Trust in the Analyst (TIA)
the intention of a stakeholder to
accept being vulnerable to some
perceived risks by working with a
given analyst who is in charge of
collecting, treating and
documenting his/her requirements;



Trust in the Stakeholder (TIS)

The intention of an analyst to accept being vulnerable to some perceived risks by collecting from a given stakeholder information about requirements from a system-to-be and/or information about the environment of that system-to-be.



10 Research Methodology

- Literature review of factors influencing trust in a communication context
- Evaluated those factors in a survey involving 35 Business Analysts (for TIS) and 22 stakeholders (for TIA)
- Repeated measures ANOVA with a Greenhouse-Geisser correction for the data treatment

Determinants of Trust

Variable	Mean	SD	Min	Max
Trust in Information Systems (TIS)	4.50	1.00	3.00	6.00
Trust in Information Analysts (TIA)	4.50	1.00	3.00	6.00
Trust in Information Systems (TIS) - Greenhouse-Geisser correction	4.50	1.00	3.00	6.00
Trust in Information Analysts (TIA) - Greenhouse-Geisser correction	4.50	1.00	3.00	6.00



Determinants of Trust

Determinant	Dimension	High	Low	Description of the High (Low) Factor
Expertise	People	Expert	Novice	the Trustor believes the words or written statements of the Trustee can (cannot) be relied on, due to (lack of) knowledge background
Likability	People	Friendly	Unkind	the Trustor finds the Trustee friendly (unfriendly), and find it pleasant (unpleasant) to spend time with the latter.
Power	People	Manager	Employee	the Trustee occupies a job that implies relatively high (low) responsibilities and hierarchical power.
Commitment	People	Concerned	Uncaring	the Trustee sees the collaboration with the Trustor as a long-term (short-term) relationship.
Loyalty	Attitude	Devoted	Distant	the Trustee has (no) time to devote to the Trustor, and is (not) actually willing to help the latter to solve its problems.
Consistency	Attitude	Directed	Undirected	the Trustee is constant (unsteady) about the design decisions made in the past, and/or avoids (makes) unexpected changes.
Receptivity	Attitude	Open-minded	Conservative	the Trustee welcomes (rejects) new ideas and listen to (discourages) additional remarks about the system-to-be.
Reciprocity	Attitude	Advisor	Collector	the Trustee provides (keeps) information to (from) the Trustor, and do not (do) only collect information from the latter.
Structure	Business	Large	Small	the business of the Trustee is large (small), with many (few) sub-entities such as teams, groups, departments, etc.
Culture	Business	Convergent	Divergent	the business of the Trustee has a vision of the world and a set of values that fit (do not fit) with those of the Trustor.
Reputation	Business	Renown	Unknown	the business of the Trustee has been successful in many different (few) projects similar to the one of the Trustor.
History	Business	Collaboration	Project	the business of the Trustee has a long (short) experience of collaboration with the company of the Trustor.



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Results

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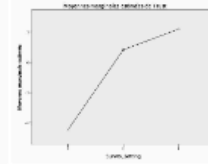


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Prezi

"More is Better" factors



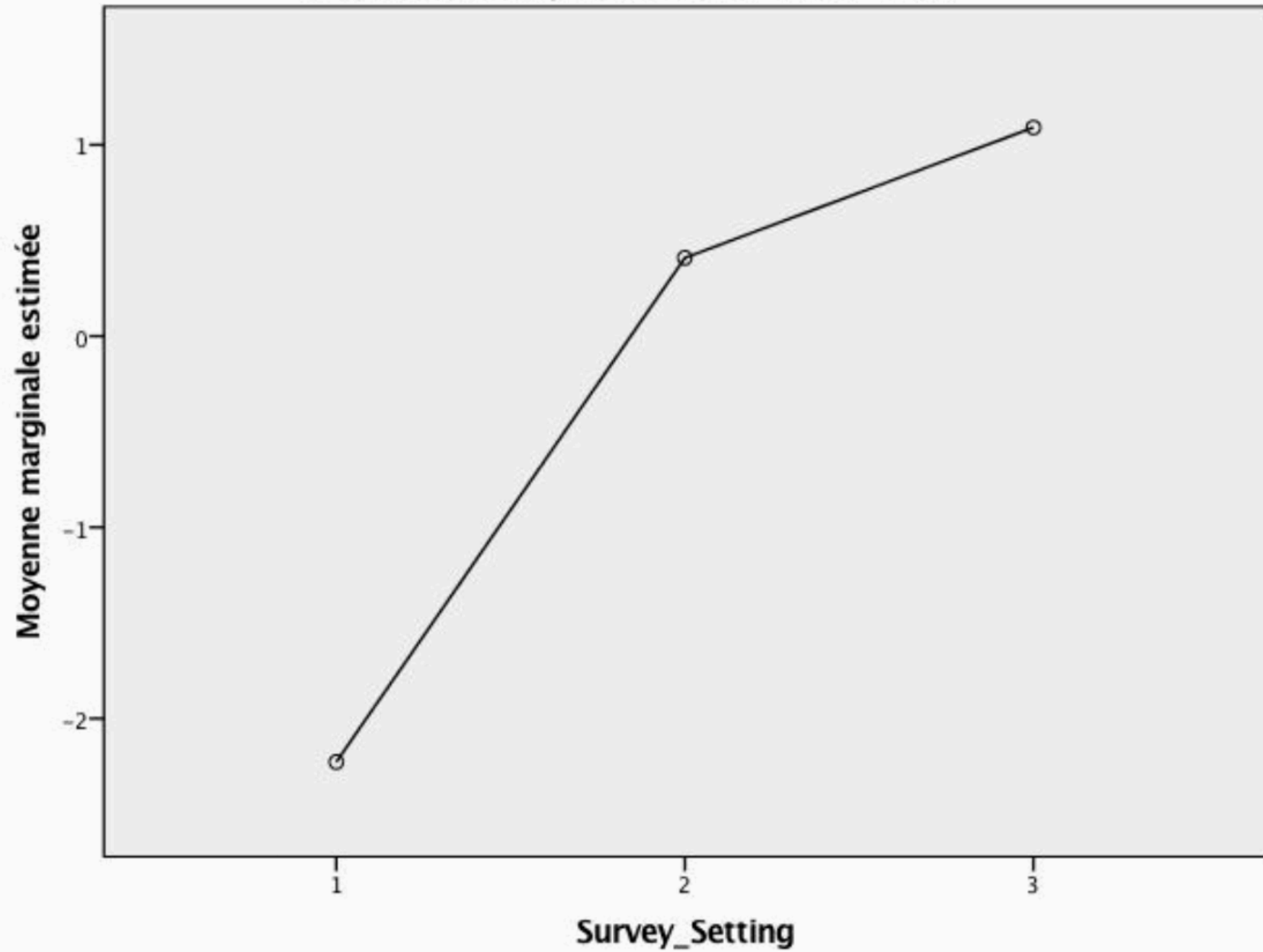
TIS

- Commitment
- Consistency
- Culture
- Expertise
- History
- Likability
- Loyalty
- Power
- Reciprocity
- Reputation

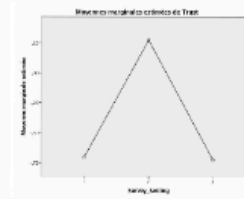
TIA

- History
- Reputation

Moyennes marginales estimées de Trust



"Avoid Extremes" factors



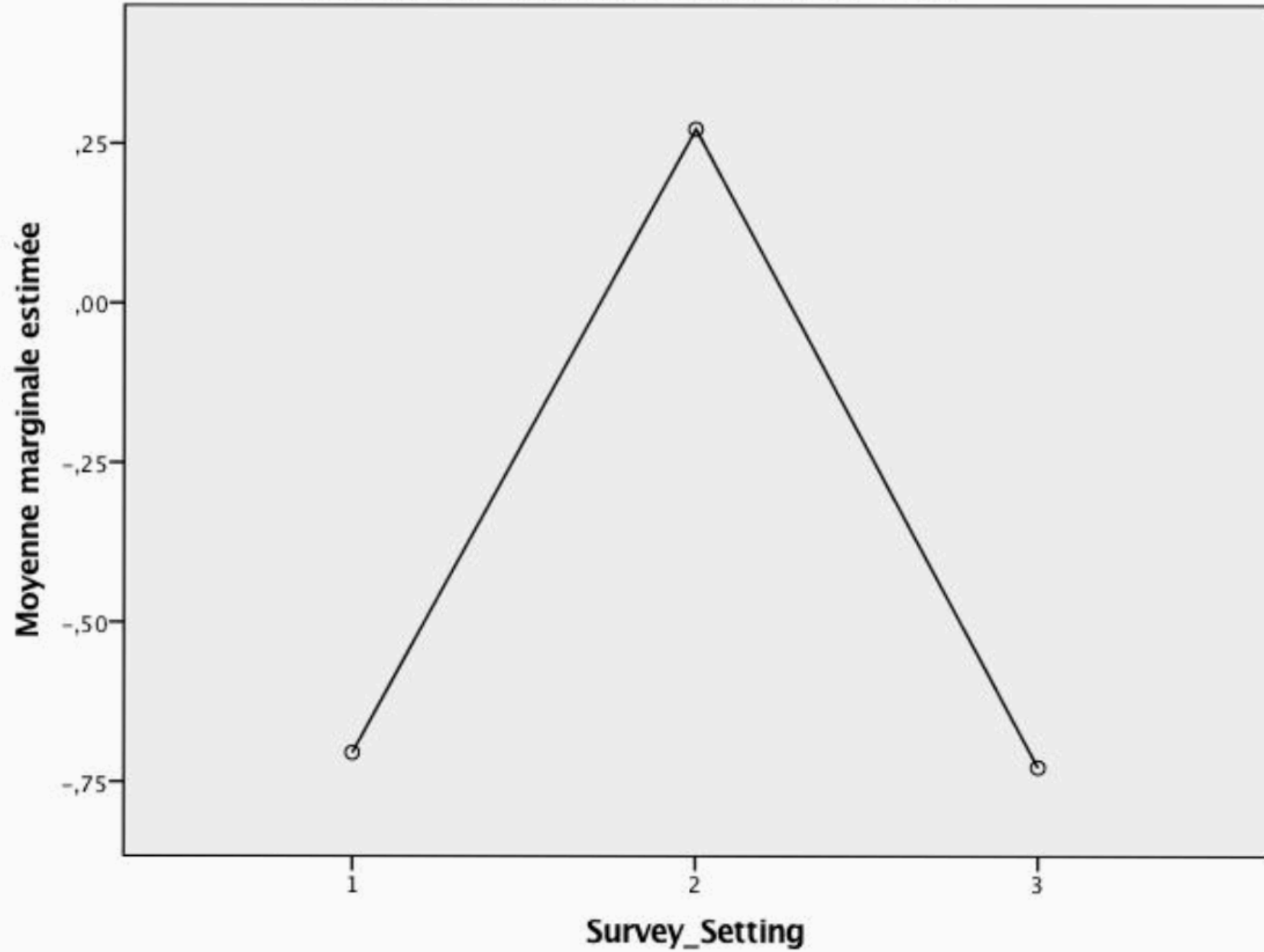
TIS

-
-
-
-
-
- Receptivity
-
- Structure

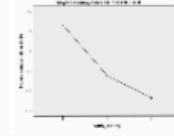
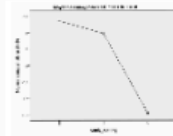
TIA

- Commitment
- Consistency
- Culture
- Expertise
- Loyalty
-
- Reciprocity
-

Moyennes marginales estimées de Trust



"Less is Better" factors

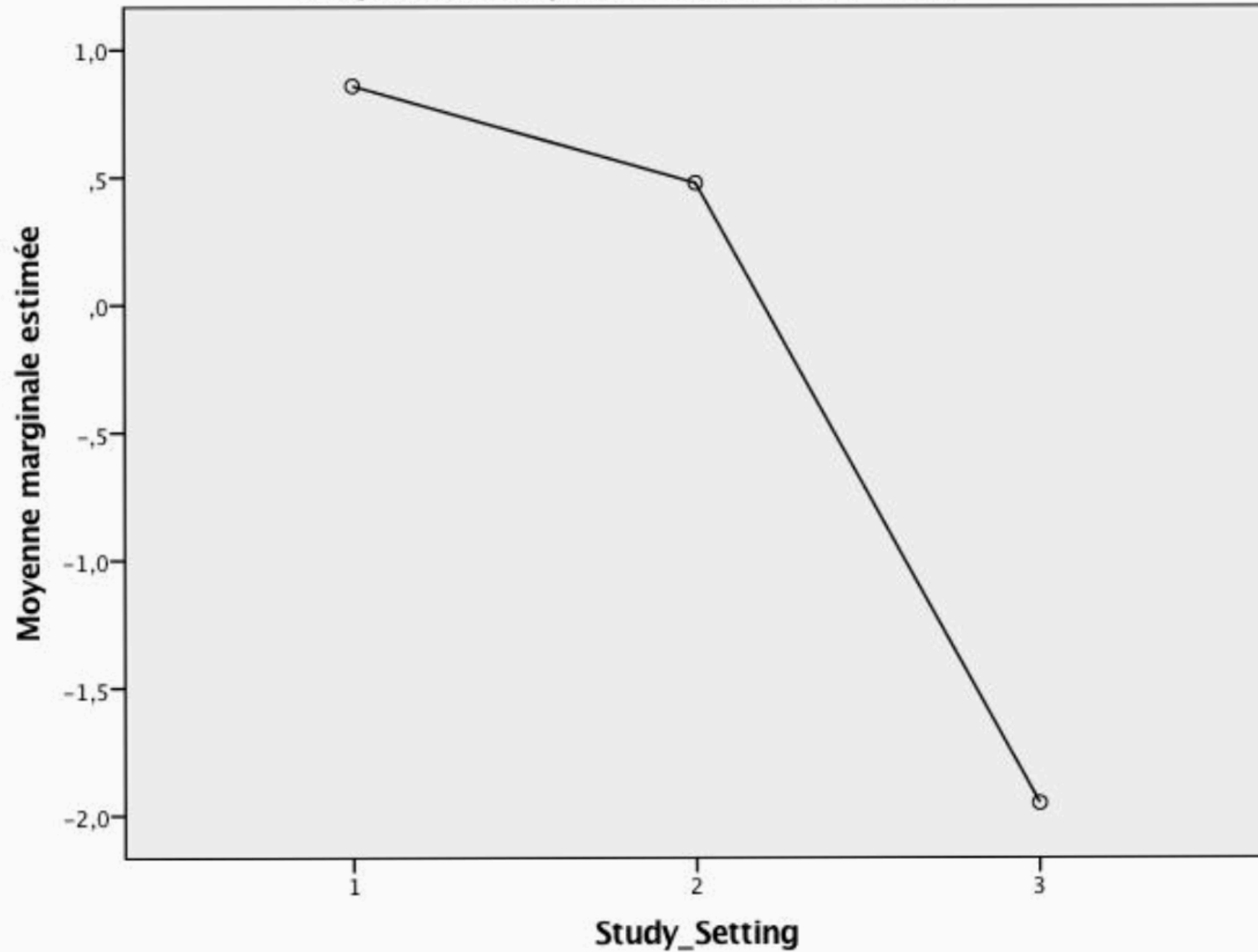


TIS

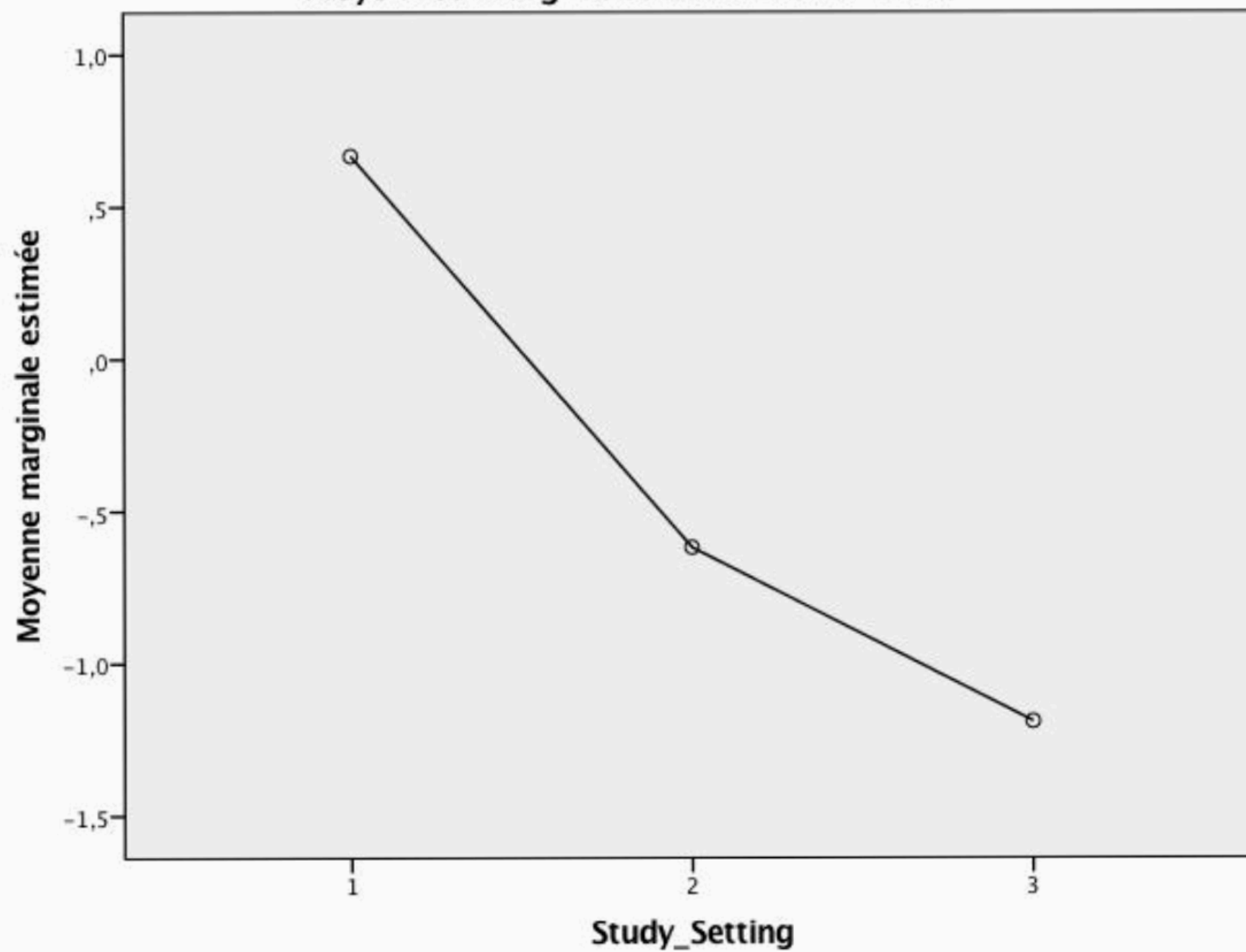
TIA

- Likability (1)
- Power (1)
- Receptivity (1)
- Structure (2)

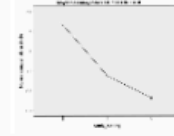
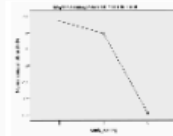
Moyennes marginales estimées de Trust



Moyennes marginales estimées de Trust



"Less is Better" factors



TIS

TIA

- Likability (1)
- Power (1)
- Receptivity (1)
- Structure (2)

Does Trust Matter to Discuss those Topics? (Average Trust Rating)

YES (1.33)

- The financial and IT strategy of your company
- The types of relationships that exist between workers in your company
- The measures that your company uses to evaluate its internal success
- The best practices in your company
- The reason why your company needs a new system
- The locations where the system should be accessed
- The hierarchical level of the users of the system
- The various actors who will use the future system
- The history and evolution of your company over the last ten years
- Specific elements about your company
- The laws and other standards that are applicable in your company
- The different departments and teams that compose your company

NO (-1.18)



Conclusion

Contact the author:
corentin.burnay@unamur.be

Conclusion

Question?

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Question?



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