# Investigating the relationship between group dynamics and health in Swedish manufacturing industry

Jon Erik Børresen, Feelgood AB
Christian Jacobsson, University of Gothenburg
Niklas Rydbo, University of Gothenburg & Feelgood AB
Contact: niklas.rydbo@psy.gu.se

Presented at:

The 8th Nordic Conference on Group and Social Psychology (GRASP) at Bergen, Norway, 3-4 May, 2012



# The aim of the project

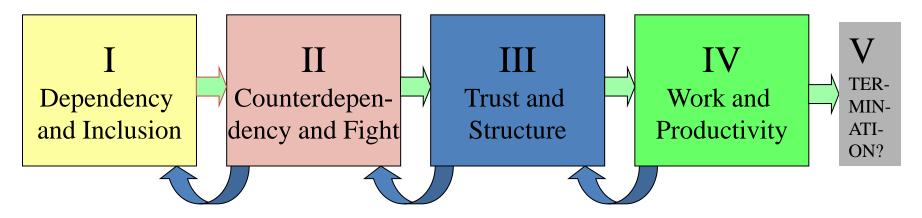
1. To reduce absence due to sickness in the factory

2. To learn more about what type of psychosocial work factors that can contribute to reduce absence due to sickness

## The Integrated Model and GDQ

- Group Development Questionnaire, GDQ, is a questionnaire that operationalize the Integrated Model of Group Development
- GDQ has been systematically reviewed and has gained a substantial body of supporting evidence for it's validity concerning the productivity and effectiveness of what teams accomplish (Wheelan & Hochberger, 1996)
- Teams that reach higher stages of development according to GDQ show:
  - Higher performing students in schools (Wheelan & Kesselring, 2005)
  - A more lean production in the financial and service sector (Wheelan, 1994)
  - More surviving patients in intensive care units (Wheelan, Burchill & Tillin, 2003)

## The Integrated Model of Group Development



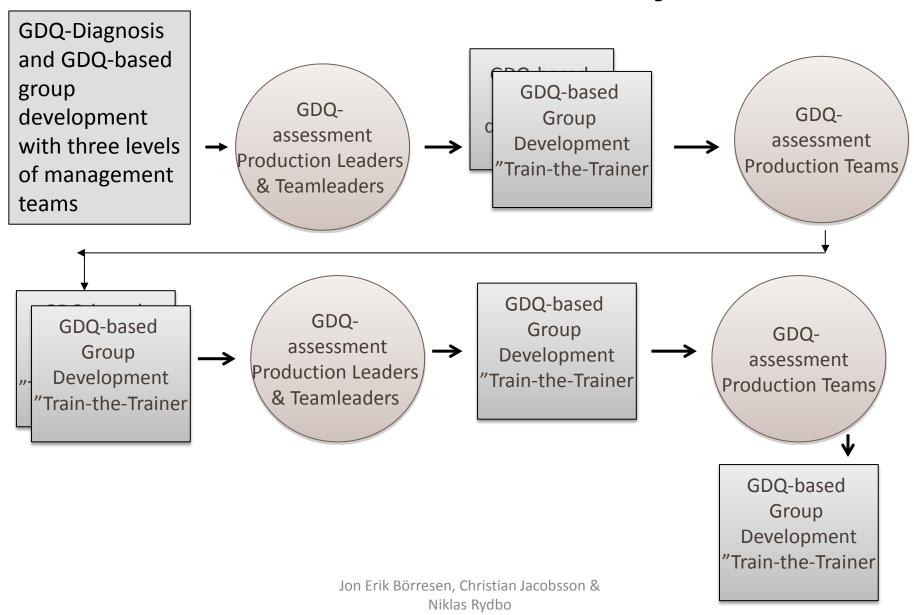
- •Member dependency on the leader
- Tendency to be tentative and polite
- Few if any challenges to leader or other members
- Independent action is rare
- Work occurs but at low levels

- Characterized by conflict among members and between members and leaders
- •Struggle with role definition and goals
- Coalitions form among members sharing similar ideas and values
- First steps to create structure for the group and role clarification

- •There is trust among members and the leader
- A mature process about deciding group goals, structure and procedures
- Information is shared rather than used for power struggles
- The groundwork for group function is laid while relationships are strengthened

- Effective work begins as an idea and ends with a product
- Communication on ideas and information is open between all members
- Work occurs in a time bound frame
- Group members use all available resources, to complete the task

# The Process of the Project



## **Research question:**

What is the relationship between group dynamics and health in Swedish manufacturing industry

# The Pilot Study

- 30 teams (33), 274 persons
  - 5 Management teams
  - 25 Production teams
- Assessment with GDQ (The Group Development Questionnaire)
- 13 additional questions concerning
  - Stress (2)
  - Exhaustion (5)
  - Employee Satisfaction Index ESI (3)
  - Feeling of Mastery (3)
- GDQ data was compared to
  - Times of absence due to sickness for each team
  - Stress
  - Exhaustion
  - Employee Satisfaction Index
  - Feeling of Mastery

## The Results

#### Times of absence due to sickness/team compared to GDQ-Scales

		GDQ- Scale 1	GDQ- Scale 2	GDQ- Scale 3	GDQ- Scale 4
Times of absence due to sickness/team	Pearson Correlation	,362*	,451*	-,364*	-,434*
	Sig. (2-tailed)	,049	,012	,048	,017
	N	30	30	30	30

#### **Exhaustion, ESI, Feeling of Mastery compared to GDQ-scales**

		GDQ-	GDQ-	GDQ-	GDQ-
		Scale 1	Scale 2	Scale 3	Scale 4
Exhaustion M	Pearson Correlation	,082	,278	-,196	-,346
	Sig. (2-tailed)	,668	,137	,300	,061
	N	30	30	30	30
Employee Satisfaction	Pearson Correlation	-,332	-,572**	,592**	,684**
Index M	Sig. (2-tailed)	,073	,001	,001	,000
	N	30	30	30	30
Feeling of Mastery M	Pearson Correlation	-,177	-,321	,369*	,473**
	Sig. (2-tailed)	,348	,084	,045	,008
	N	30	30	30	30

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

## Further questions

- Relationsship between team maturity in supervisor teams and team maturity in production teams?
- Does team maturity in supervisor teams have a significant impact on the functioning and maturity in production teams?
- Does team maturity in production teams have effect on managing daily problems?
- Relationship between group maturity in production teams and "near misses" and physical accidents



#### References

- Wheelan, S.A. & Hochberger, J.M. (1996). Validation Studies of the Group Development Questionnaire. *Small Group Research*, 27, No.1, 143-170.
- Wheelan, S.A. & Kesselring, J. (2005). The Link Between Faculty Group Development and Elementary Student Performance on Standardized Tests. *The Journal of Educational Research*. 98, No.6, 223-230.
- Wheelan, S.A. (1994). The Group Development Questionnaire: A manual for professionals. Provincetown, MA: GDQ Associates.
- Wheelan, S.A., Burchill, . & Tillin, F. (2003). The Link Between Teamwork and and the Patients' Outcomes in Intensive Care Units. *Amarican Journal of Critical Care*. 12, 527-534.