

**“TEAM LEARNING
Analysis of a Model and Evaluation
Instrument”**

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Team learning...

A main topic of Knowledge Management is concerned how people share information and knowledge, and particularly how organizations and teams learn.

Suggestive proposals have been made like as the model put forward by Huber (1991) and, following it, the evaluation instrument developed by Van Offenbeek (2001).

The last one includes four learning activities scales:

- distributing information
- convergent aspects of sensemaking
- divergent aspects of sensemaking, and
- storing and retrieving information

There is a complementary scale: acquiring information

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This communication presents the Spanish adaptation and psychometric properties of this instrument, and the relationship of its scales with other team measures (team process and team performance).

Hypothesis

Following Huber (1991) model can be identified 4 main factors in team learning
All these factors have a significantly positive correlation with team performance (efficiency) and team process (potency), as well to team and members previous orientation

METHOD

SAMPLE:

composed by 25 work teams (104 individuals, MBA students).

MEASURES:

Team learning:

- Learning activities scales (Van Offenbeek, 2001).

Previous disposition:

- Orientation (following Van Offenbeek, 2001).
- Preselection: previous effort

Team process

- Potency (Guzzo, Yost, Campbell y Shea, 1993)

Performance:

- Objective measure by three independent experts
- Subjective by members team

METHOD

PROCEDURE:

New teams were created to make a usefulness project, that requires almost ten work meeting during two months time till complete the project.

Each team project result was evaluated by external judges.

At the start all members were asked to fill out a questionnaire to evaluate their previous disposition (orientation and effort) and at the end they evaluated team learning and some group process and subjective efficiency

RESULTS

		Mean	Std. Dev.	Cases
Distributing information	1...from other teams	2,08	0,78	105
	2...from your team members	4,23	0,83	105
	3...working with other teams	1,62	0,77	105
	4...to other teams	1,92	0,89	105
Convergent aspects of sensemaking	1...listened to each other	4,18	0,87	105
	2...help forming a opinion	4,11	0,75	105
	3 debate about interpretation	3,72	1,02	102
Divergent aspects of sensemaking	1 evaluate our way of working	3,66	0,91	104
	2 attention to team processes	2,93	0,97	104
	3 sharing all our knowledge	4,25	0,77	105
	4 comments were being acted	3,58	0,93	105
	5 develop shared knowledge	3,75	0,82	105
Storing and retrieving information	1...consult team documents	3,80	0,92	105
	2...storing in an archive	3,48	1,12	105
	3 storing by making minutes	3,17	0,97	102
Acquiring information	1 all information available	3,58	0,98	103
	2 experiences members during	3,86	0,87	105
	3 exploring prior knowledge	3,77	0,81	105
	4 use additional information	3,33	0,95	105
	5 engaging thought experiments	3,19	0,95	102

Results: Reliability

Cronbach's Alpha

Convergency	0,72
Divergency	0,78
Information Distribution	0,82
Store	0,70
Questionnaire	0,86

Team learning...

RESULTS

Components rotated matrix

	Convergent aspects of sesemaking	Divergent aspects of sesemaking	Distributing information	Storing and retrieving information	Acquiring information
1...listened to each other	,757	,141	-,188	-,168	---
2...help forming a opinion	,641	,295	---	---	,280
3 debate about interpretation	,560	,333	-201	,250	---

Team learning...

RESULTS

Components rotated matrix

	Convergent aspects of sesemaking	Divergent aspects of sesemaking	Distributing information	Storing and retrieving information	Acquiring information
1 evaluate our way of working	---	,594	---	-,216	,470
2 attention to team processes	,238	,672	---	,136	,260
3 sharing all our knowledge	,781	---	---	,127	,210
4 comments were being acted	---	,780	---	,164	-,100
5 develop shared knowledge	,324	,642	---	---	,230

Team learning...

RESULTS

Components rotated matrix

	Convergent aspects of sesemaking	Divergent aspects of sesemaking	Distributing information	Storing and retrieving information	Acquiring information
1...from other teams	---	---	,821	-,215	-,180
2...from your team members	,847	---	---	---	,100
3...working with other teams	-,100	---	,826	,130	-,240
4...to other teams	-,161	---	,797	---	,270

Team learning...

RESULTS

Components rotated matrix

	Convergent aspects of sesemaking	Divergent aspects of sesemaking	Distributing information	Storing and retrieving information	Acquiring information
1...consult team documents	,412	---	-,174	,122	,550
2...storing in an archive	---	---	-,135	,842	---
3 storing by making minutes	,144	,356	---	,776	,140

Team learning...

RESULTS

Components rotated matrix

	Convergent aspects of sesemaking	Divergent aspects of sesemaking	Distributing information	Storing and retrieving information	Acquiring information
1 all information available	,111	---	---	---	,760
2 experiences members during	,545	,277	-,205	,321	---
3 exploring prior knowledge	,443	,418	-, 233	,214	-,140
4 use additional information	,245	,159	---	,464	,460
5 engaging thought experiments	,165	,585	,207	,231	-,220

RESULTS

Team Performance

Efficiency: objective and subjective measures

	Convergent aspects of sesemaking	Divergent aspects of sesemaking	Distributing information	Storing and retrieving information
Efficiency: objective measure	,401**	,229*	-,215*	,433**
Efficiency: subjective measure	,679**	,624**	-,168 n.s.	,292**

*** $a < 0.01$

** $a < 0.05$

* $a < 0.10$

Team learning...

RESULTS

Group process measures

	Convergent aspects of sensemaking	Divergent aspects of sensemaking	Distributing information	Storing and retrieving information
Potency	,663**	,535**	-,163 n.s.	,279**

*** $a < 0.01$

** $a < 0.05$

* $a < 0.10$

Team learning...

RESULTS

Group process measures

	Convergent aspects of sensemaking	Divergent aspects of sensemaking	Distributing information	Storing and retrieving information
Cohesion	,619**	,368**	,210*	,073 n.s.

*** $a < 0.01$

** $a < 0.05$

* $a < 0.10$

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RESULTS

Previous disposition

	Convergent aspects of sensemaking	Divergent aspects of sensemaking	Distributing information	Storing and retrieving information
Preselection: previous effort	,395**	,270**	-155 n.s.	,352**

*** $a < 0.01$

** $a < 0.05$

* $a < 0.10$

Team learning...

RESULTS

Previous disposition

	Convergent aspects of sensemaking	Divergent aspects of sensemaking	Distributing information	Storing and retrieving information
Previous orientation	,172 n.s.	,330**	,092 n.s.	,185 n.s.

*** $a < 0.01$

** $a < 0.05$

* $a < 0.10$

RESULTS

Hypothesis 1

Following Huber model can be identified 4 main factors in team learning

....is confirmed

Hypothesis 2

All these factors have a significantly positive correlation with team performance (efficiency) and team process (potency), as well to team and members previous orientation

...is partially confirmed

CONCLUSIONS

The Team Learning Questionnaire shows, generally, good psychometric properties, with a factorial solution with four main factors:

- *Convergent aspects of sensemaking*
- *Divergent aspects of sensemaking*
- *Distributing of information*
- *Storing and retrieving information*

Three of these scales (*Convergent aspects of sensemaking; Divergent aspects of sensemaking; and Storing and retrieving information*) have a positive correlation to: efficiency (objective and subjective), potency and preselection (previous effort).

The other scale (*Distributing of information*) has a negative correlation to the same measures.

References

Huber, G. P. (1991). Organizational learning: the contributing processes and the literatures. *Organization Science*, 2, 88-115.

Van Offenbeek, M. (2001). Processes and outcomes of team learning. *European Journal of Work and Organizational Psychology*, 10, 303-317.

Team learning...



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