

Discussion group using asynchronous learning network during a clinical rotation in paediatrics

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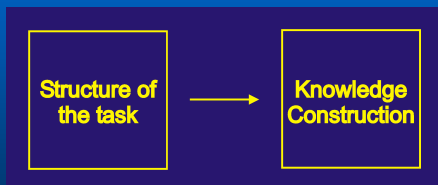
Aim of the use of ALN

- **Stimulate reflection by collaborative learning.**

Major question

- **Is the extent of collaborative learning influenced by the task structure?**

Research question



Research Design

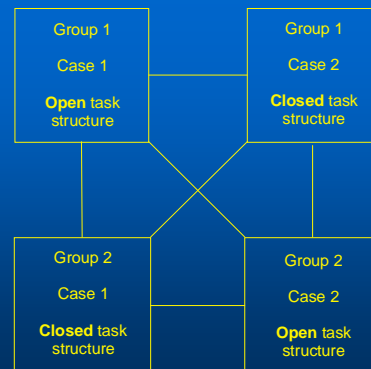
- **12 students**
- **Complete case history and clinical examination provided at the start**

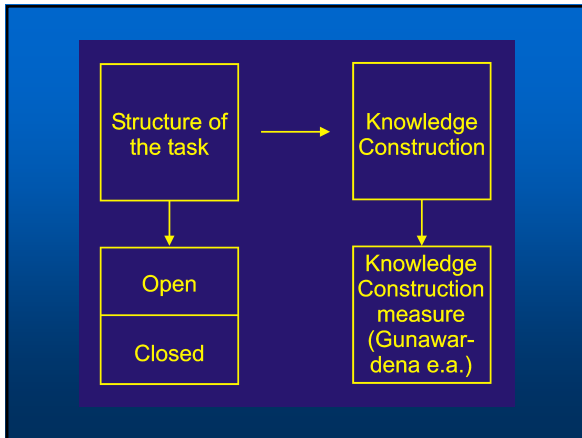
Defining the clinical problem		Proposing further patient management (open vs. closed)	
Individually	Discussion	Individually	Discussion

Task structure

Proposals for further patient management:

- **Open:** students propose themselves
- **Closed:** 2 different management options are proposed by the facilitator





Knowledge construction:
 Gunawardena, Lowe & Anderson (1997): Interaction analysis model

- Phase 1: sharing/comparing of information
- Phase 2: the discovery and exploration of dissonance or inconsistency among ideas, concepts or statements
- Phase 3: negotiation of meaning/co-construction of knowledge
- Phase 4: testing and modification of proposed synthesis or co-construction
- Phase 5: agreement statement(s)/applications of newly constructed meaning

Knowledge construction: coding the transcripts

Cronbach α coefficients

Phase	1	2	3	4	5
Initial – between the interraters	.86	.60	.76	.67	.82
Interrater 1 – between ‘initial’ and ‘after discussion’	.87	.79	.80	.78	.76
Interrater 2 – between ‘initial’ and ‘after discussion’	.88	.78	.85	.79	.84
Interrater 3 – between ‘initial’ and ‘after discussion’	.94	.75	.89	.81	.80
After discussion – between the interraters	.99	.97	.98	.98	.98

Results

Highest phase knowledge construction *
 Structure Crosstabulation

	KC	open	closed	total
phase 1		6,7%	1,7%	8,3%
phase 2		5,0%	1,7%	6,7%
phase 3		15,0%	38,3%	53,3%
phase 4		5,0%	21,7%	26,7%
phase 5		1,7%	3,3%	5,0%
total		33,3%	66,7%	100,0%

Results

- Task structure influences knowledge construction ($\alpha=.05$)
 (F 1,53)=6.064, $p=0.017$

The ‘closed form’ induced higher levels of knowledge construction.

Conclusion

- Prefer closed task structure

Further Research

- Larger sample
- Other theoretical basis