

Quality Matters Rubric as "Teaching Presence": **Application of COI** Framework to Analysis of the QM Rubric's Effects on Student Learning

ANNA HALL, PhD

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Conclusions, Observations, Future Research

Research Questions

'Who Am I?"- and Does It Matter? "When Is This Due?"

COI Teaching Presence: Design and Organization Directed Facilitation **This Project: Instructor's personality and** style, availability, expression of personal views ("Teacher Presence") affect Student Social and **Cognitive Presences**, **Student Performance and** Satisfaction.

Assessments **Mechanisms**



QM: Alignment of Course Goals, **Objectives, SLOs, Resources,**

- Rubrics, Schedules, Feedback
 - **This Project:**
- **QM Rubric is proxy for new**
- type of "Design and
- **Organization**" in COI, affecting
- other COI Presences and
- **Student performance.**

Theoretical Background: COI and Teaching Presence

Community of Inquiry Framework (Garrison et al. 2000)

Social Cognitive Presence Presence Learning Teaching Presence discourse"

- Items 5-13 (Direct and Facilitate)

- SP- participants feel "affectively connected one to another"
- **CP-** learners "are able to construct and confirm meaning through sustained reflection and discourse"
- TP- "design, facilitation, and direction of cognitive and social processes to support learning" (Swan and Ice 2010)
- **COI Survey Instrument:**
- Items 1-4 (Design and Org'n)

Others on "Teaching" and "Teacher"

Directed Facilitation

Mishra 2006 (TPCK Model components)- "Presentational" and "Performance Tutoring"

Schulman 1987 (PCKM Model)-"Performance Tutoring" and "Epistemic" components

Anderson et al. 2001- Instructor personal insights

Arsham 2002- Instructor professional expertise, confidence

Elmendorf and Ottenhoff 2009argued for students' "intellectual play"/ Instructor's absence from DB (in hybrid classes); DB absence compensated by in-class discussions

Teacher Presence

- Arsham 2002- Instructor availability, feedback, personal enthusiasm
- Cananaugh 2005- Teacher's individualized attention
- McLain 2005- Instructor/ Student contacts
- Dawson 2008- frequency, quantity, flow of exchange
- Bieleman 2003- e-mails' effects on satisfaction
- NACOL; Akin and Neal 2003time intensiveness of personalized attention and feedback

Data, Methodology, Measurements

- 14 Sections of an Online INTRODUCTORY SOCIOLOGY Course (Fall 2007 through Fall 2009); 5 Sections Pre-QM/9 Post-QM
- Each course: 8 Units (Units "self-contained": DB + assessment)
- N= 112; all variables measured at Unit level of observation
- Data (Teaching and Student Presences): **Content analysis** of Instructor and Student DB posts Coding: Evidence of each element in post = 1 "instance". Totals averaged by number of student participants in Unit

Data (Teacher Presence):

Archived individual e-mails (averaged per day; response time) Archived class "Reminders" (averaged per day)

- Data (DB/Test Grades): BB Gradebook
- Data (Satisfaction): Content analysis of DB comments



	MEANS BEFORE/ AFTER QM	F	SIG			
	.2146 .2955	4.664	.033*			
	1.2673 1.8848	6.691	.011*			
	.1458 .3151	45.71 6	.000*			

ANALYSIS: COMPARISON of MEANS ELEMENTS of TEACHING PRESENCE



MEANS BEFORE/ AFTER QM	F	SIG
.2772 .4181	7.046	.009*
.8263 1.1901	11.54 5	.001*
.4469 .2169	18.63 2	.000*
.6951 .8890	5.528	.021*
.1611 .4054	25.27 5	.000*
.7626 9446	4.283	.041*



MEANS	F	SIG
BEFORE/		
AFTER QM		
1.9966	4.391	.038*
1.4418		
.7555	44.172	.000*
.1908		
1.5542	4.974	.028*
1.2110		
2.7366	.978	.325
2.5395		
1.9525	14.737	.000*
1.1599		
1.4138	.194	.661
1.4857		
.7665	.105	.747
.7313		



MEANS BEFORE/ AFTER QM	F	SIG
81.538 80.524	.311	.578
80.375 86.033	9.487	.003*

Analysis: Factorial Structures of Student, Teacher, and Teaching Presences (Factor Loadings/ Varimax Rotation)

IMANAGE	TEACHER	TEACHING		SSOCIAL	SCOGNHI	SCOGNL	
IMANAGE	REMIND	IAGREE		SGROUP	STRIGGER	SAGREE	
.920	.719	.691		.890	.805	.754	
		ICLARIFY		SEMOT	SINTEGR	SEXPLORE	
	EMAILS	.893		783	897	803	
	.730	IEXPERT		.705	.052	.005	
		.755				SAPPLY	
	RESPONSE						
TIME 610		.687					
	.010	IEMOT	SCALES:				
		.855	SSOCIAL (Chronbach's Alpha= .845				

SCALES: **TEACHER (Chronbach's Alpha= .526) TEACHING (Alpha= .846)**

SCOGNITIVELOW (Alpha=.802) SCOGNITIVEHIGH (Alpha= .840)

Analysis: Regression

VARIABLES	RIABLES MODEL 1:TESTGRADE		MODEL 2:DBGRADE		MODEL 3:SATISF	
	Beta	sig	Beta	sig	Beta	sig
(Const)						
QM	.095	.520	.308*	.011	.759*	.000
TEACHER	157	.181	087	.445	222*	.016
TEACHING	197	.122	071	.557	.110	.266
SSOCIAL	162	.254	061	.641	.336*	.003
SCOGNLO	.280*	.023	.062	.595	034	.720
SCOGNHI	.182	.187	.336*	.008	078	.466
MODEL FIT						
Adjusted R ²	.066		.212		.429	
F Change	2.301		5.277		14.909	
Sig F Change	.040*		.000*		.000*	

*p<.05; df= 6; Method: ENTER QM Codes: 0 = preQM; 1 = postQM All "Presences" = SCALES/Unweighted Sums of Variable Z-Scores

Analysis: EQS 6 CFA: Four-Factor Model of Teacher/Teaching Presences Chi Sq.=65.23 P=0.00 CFI=0.90 RMSEA=0.10



Summary

- Instructor's Contribution to Online Learning may consists of:
 - **Course Design and Organization**
- **Teaching Presence on DB**
- **Direct Management on DB** -
- **Increases Teacher and Teaching Presences Reduces Direct Management on DB/ "personalizes"**
- Personalized/ Teacher contacts with Students on and out of BB **QM Rubric Implementation as New "Design and Organization":** -
- Management by moving it to Teacher domain (personal e-mail)
- Reduces Student "self-management" (i.e. "Group Concerns") on **DB**, thus, indirectly reducing "Student Social Presence"
- Has a positive effect on Student Higher-Order Cognitive **Presence via higher Teaching Presence**
- Teacher Presence, Student Social Presence, and QM positively affect course Satisfaction
- QM and Higher-Order Cognitive Presence positively affect DB Grades

Limitations of Study Suggestions for Future Research

- -Confounded effects of Instructor Teaching **Experience and Training and new Course Design Implementation (QM)**
- Small sample size; Unit-level (not Studentlevel) analysis
 - -Subjectivity of content analysis/ coding
 - -Temporal dynamics within the Course/ Timeseries analysis across the course Unit structure

Just a Thought ... IF:

Teaching is a CRAFT encompassing Conception and Execution (Braverman)

Instructor's Conception of the Course as expressed in the Course Design (including Goals, SLOs, and Assessments) AND the Execution of the Teaching process ARE Socially **Constructed** in the context of the College and larger culture; academic field; Instructor perceptions, personality, and styles expressed and assessed in the context of external socially constructed reality at least partially created by the Instructor

Student Learning is internalized, subjectively perceived, BUT is

...THEN: It matters "WHO WE ARE"... NK \

Questions, Comments: aahall@dcc.edu



