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Author(s)

Name: G. Bendermacher¹, M. oude Egbrink², I. Wolfhagen³, D. Dolmans⁴

Position:

1. Policy Adviser, PhD candidate [responsible for presentation paper]
2. Professor Implementation of Educational Innovations
3. Educational Researcher
4. Professor Innovative Learning Arrangements

Organisation: Maastricht University
Faculty of Health, Medicine and Life Sciences.
Institute for Education
School of Health Professions Education.

Country: The Netherlands

E-mail address: g.bendermacher@maastrichtuniversity.nl

Short bio (150 words max):

Guy Bendermacher is an educational policy adviser at the Institute for Education of Maastricht University's (NL) Faculty of Health, Medicine and Life Sciences. He holds a Master's degree in Health Policy, Economics and Management and currently is a part-time PhD candidate (School of Health Professions Education), working on a range of theoretical and empirical studies on the concept of quality culture in higher education.



Proposal

Reinforcing pillars for quality culture development; a path analytic model

Abstract

To this date, research on the interplay between organisational structure/managerial and organisational value/psychological elements impacting educational quality enhancement is scarce. As a consequence of lacking knowledge in this area, institutions tend to address these elements in isolation, thereby moving past integral approaches, which reinforce the organisations' quality culture. This paper/presentation elaborates on the results of a path analysis, to examine interrelationships between institutional context characteristics, work-related psychological attitudes of academic staff and their relationship with quality enhancement practices. The findings highlight the importance of fostering 'ownership' to promote quality enhancement practices. Moreover, explicit concern for morale, involvement and development was found to significantly impact on various (positive) work-related psychological attitudes of coordinating teaching staff members. Counter to the hypotheses, a transactional/transformational leadership style was not related to these attitudes (empowerment, ownership and commitment); academics might need a more covert form of leadership entailing protection, support and the management of autonomy.

The paper is based on: research



Introduction

Notwithstanding its indelible place on the agenda of Higher Education Institutions (HEI), the value of quality management is contested. Whereas various authors report on its merits, such as increased transparency on performance indicators, process improvement, readiness for change and staff/student involvement (Kleijnen et al. 2014; Lillis 2012; Cruickshank 2003), others express concerns that managerial approaches mainly serve ‘control’ and ‘accountability’ purposes (Brookes & Becket 2007; Newton 2000). Quality management can evoke staff resistance if it exaggerates bureaucracy, relies too heavily on a top-down implementation, and strains individual autonomy (Cruickshank 2003). As academics closely identify with their own (teaching) discipline, the evaluation and assessment of educational quality can touch upon their sense of professionalism and impact morale (Gordon 2002).

Against this backcloth, the concept of ‘quality culture’ has captured an increased interest. The concept implies that both structural/managerial elements and organisational values/psychological elements are addressed to enhance educational quality. A quality culture can be regarded as a specific kind of organisational culture encompassing shared commitment and responsibility for – quality, grass-roots involvement of staff and students and an adequate balance between top-down and bottom-up improvement initiatives (EUA 2006).

In higher education, studies have been conducted on the relationship between organisational values and effectiveness (e.g. Cameron & Freeman 1991; Smart 2003), organisational culture(s) and quality management (e.g. Berings 2009; Kleijnen et al. 2014) and barriers to quality management implementation (e.g. Horine & Hailey 1995; Newton 2002). There is a paucity of research however, on the way in which (sub)cultures and structures trigger work-related psychological attitudes of academics, the way these attitudes interrelate, and their impact on quality enhancement practices.

This study aims to investigate the interrelationships between the most important organisational value/psychological and structural/managerial elements for quality culture development. These are represented as a configuration of internal organisational context characteristics (value orientation, leadership, and communication), work-related psychological attitudes of staff (empowerment, commitment and ownership) and quality enhancement practices (Bendermacher et al. 2016; EUA 2006, 2010). The variables were operationalised in a survey. Data collected from academics with coordinating teaching roles were analysed to construe a path model.

Conceptual framework

Throughout this conceptual framework, definitions of the researched variables are provided. Figure 1, included at the end of this section, depicts the hypotheses (as referred to in the conceptual framework in italics; *H1-H10*)

Organisational culture: a competing values approach

Organisational culture can be defined as ‘The collective, mutually shaping pattern of norms, values, practices, beliefs and assumptions that guide the behaviour of individuals and groups within an HEI and provide a frame of reference within which to interpret the meaning of events and actions’ (Kuh & Whitt 1988, 28). As research in the field of organisational culture progressed, the shared norms and values approach as implied by this definition, appeared to have its flaws: employees are part of – and are influenced by – multiple, coinciding (sub)cultures, which encompass different, possibly competing values. These subcultures emerge through a shared belonging to the academic profession, discipline, type of institution or specific department within the institution (Lomas 1999). The competing values model provides a framework for assessing organisational value orientation (Quinn & Rohrbaugh 1983). The model consists of two dimensions: external versus internal value orientation and focus on control versus flexibility. Organisations can identify with and strive for different values at the same time: to be structured and stable (‘internal process’; internal/control orientation), to be a collaborative community (‘human relation’; internal/flexible orientation), to be proactive and innovative (‘open system’; external/flexible orientation) and to be goal oriented and efficient (‘rational goal’; external/control orientation) (Cameron & Quinn 1999).

Linking organisational value orientation, leadership and communication

Bland et al. (1999) note that how leaders perceive the organisation greatly affects what they believe are the best ways to influence it. In other words, whereas leaders are likely to be influenced by the organisational value orientation, they are at the same time in the position to reinforce or alter specific orientations. This implies the existence of a bidirectional relation (a correlation) between leadership and organisational value orientation.

According to Bass (1985) positive organisational leadership can be conceptualised as a complementary construct of ‘transactional’ and ‘transformational’ styles. *Transactional* leadership entails an exchange relationship between leaders and employees. It denotes that employees receive valued outcomes (such as wages, promotion) when they act in accordance with the wishes of higher management. *Transformational* leadership styles are focused on a broadening of employee interests, generating awareness and acceptance of the purpose of the organisation and motivating employees to go beyond their self-interest for the good of the organisation (Den Hartog et al. 1997).

The organisational value orientation is posited to influence communication satisfaction (*H1*), since their value orientation affects staff attitudes pertaining to the communication practices within the organisation (Brown & Starkey 1994). Moreover, the orientation promoted by the organisation’s management is linked to their communication strategy (Quinn et al. 1991). As leaders acquire information needed to develop strategies and policies and can act as ‘information distributors’, a positive leadership style is hypothesised to contribute to communication satisfaction as well (*H2*).

Work-related psychological attitudes: empowerment, commitment and ownership

The organisations’ value orientation, leadership and communication (can) constitute supportive contextual characteristics and are hypothesised to be positively associated with work-related psychological attitudes: ‘empowerment’, ‘affective commitment’, and ‘ownership’. *Empowerment* reflects a cognitive state characterised by a sense of perceived control, competence and goal internalisation (Menon 1999). *Affective commitment* resembles an

emotional attachment to, identification with and involvement in the organisation (Meyer and Allen 1991). *Ownership* refers to ‘the psychological state in which individuals feel as though the target of ownership or a piece of that target is theirs’ (Pierce et al. 2003, 86).

Employees have shown to feel more affectively committed to organisations with which they share values (Meyer et al. 2010). The study tests the hypothesis that human relation value orientation (reflecting concern for staff morale and development) and open systems value orientation (reflecting innovation and growth) are positively related to staffs’ affective commitment (*H3 a, b*). Moreover, since a human relation value orientation aims to promote participation and involvement, it is expected to have a positive effect on staff empowerment (*H4*).

Leaders can provide incentives to staff, create a sense of involvement, set a vision which is in line with staff’s norms and values and offer room for staff development and autonomy (Meyer & Allen 1991; Bryman 2007). These positive attributes of combined transformational and transactional leadership styles are hypothesised to trigger employee empowerment, affective commitment and ownership (*H5 a, b, c*).

The way in which staff experiences the communication climate is hypothesised to contribute to their affective commitment to the organisation and the degree to which they feel empowered in their work (*H6 a, b*). Hence, adequate communication can be considered a prerequisite for staff to be able to identify with the organisations’ mission, aims and value orientation and it is through adequate communication and information provision that staff can acquire the knowledge needed to develop a sense of empowerment.

The three work-related psychological attitudes of staff are also deemed to interrelate. Since empowered staff members are entrusted with more responsibilities and have considerable opportunities to make decisions, it is expected that staff experiencing higher degrees of empowerment also experience higher degrees of ownership (*H7*). In addition, staff members who feel empowerment and have a sense of ownership are hypothesised to develop a stronger sense of affective commitment to the organisation (*H8 a, b*).

Implications for quality enhancement practices

The systematic, structured side of quality enhancement is hypothesised to fit-in best with planning and control oriented value orientations: internal process value orientation and rational goal value orientation (*H9 a, b*).

By definition, empowered staff members view themselves as being able to influence their jobs and work environments in meaningful ways and are likely to proactively execute their responsibilities by, for instance, anticipating problems and acting independently (Spreitzer 1995). Empowered employees possess a certain amount of responsibility, autonomy and decisiveness. These traits of empowered staff members are considered to have a positive effect on quality enhancement practices (*H10 a*).

Highly affectively committed employees are willing to put extra effort into their work and have a tendency to be more concerned with its quality (Meyer and Allen 1991). It is postulated therefore that affective commitment contributes to quality enhancement practices (*H10 b*).

Research by Vandewalle et al. (1995) revealed that experienced ownership is associated with a sense of responsibility, pride and the performance of extra role behaviour; constructive work

efforts that go beyond the basic required work activities. Coordinating teaching staff members who consider educational courses to be 'their own' are expected to report higher degrees of quality enhancement practices being realised (*H10 c*).

Theoretical Model and hypotheses

Figure 1 depicts the theoretical model and direction of hypothesised causal relationships. Note the line connecting the 'leadership' and 'organisational values' variables reflects that a relation between these variables is expected, but that the direction of causality is unknown.

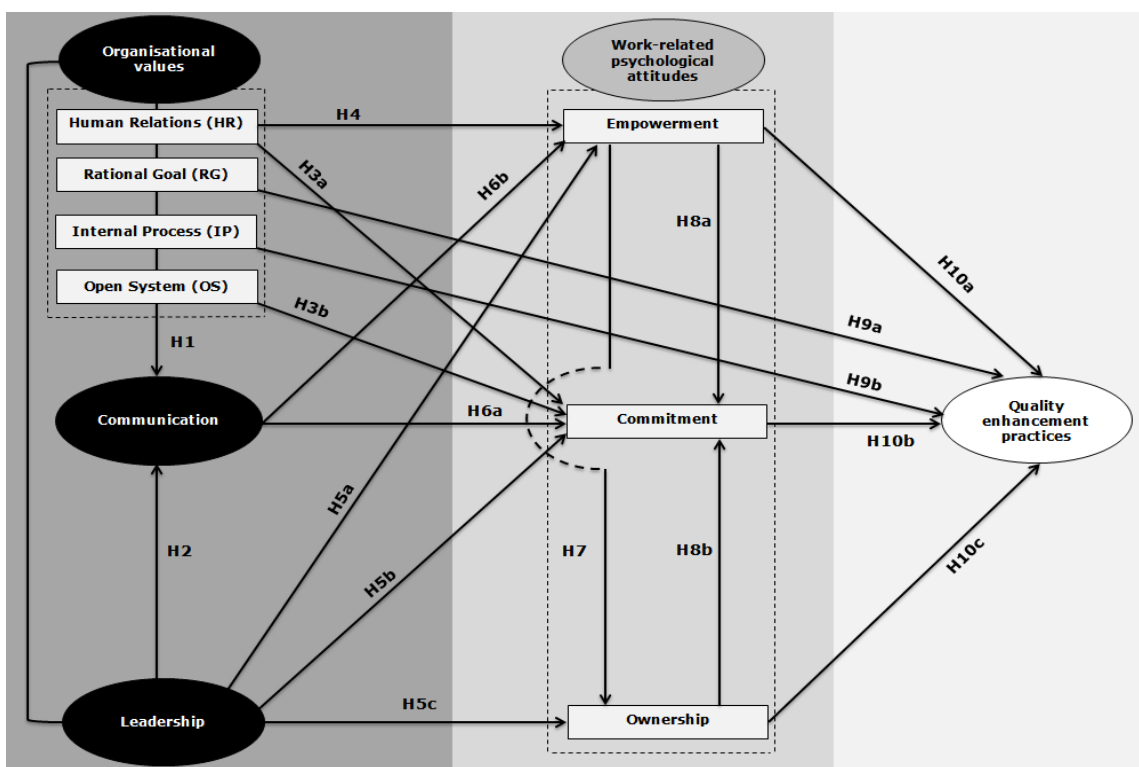


Figure 1: Hypothesised path relationships between quality culture variables.

Research design and methods

Setting and participants

The hypotheses were tested against data collected from course coordinators of four bachelor programmes at Maastricht University (NL). Course coordinators, together with a number of planning group members, are responsible for the quality enhancement of their respective course; they are expected to systematically work on the improvement of education, taking into account both their own experiences as well as other sources of information, e.g. quantitative and qualitative results of student evaluations and input of involved teaching staff. In total, one-hundred-and-twenty-three coordinators were invited to fill-out the online survey, which



requested staff to reflect on experiences regarding the previous run of their course. Eighty-nine responses were collected, representing a response rate of 72%.

Survey development

The ‘quality culture’ survey was constructed by means of combining (subscales of) existing, well-validated questionnaires, incorporating items of original questionnaires into new scales, and item/scale development by the authors. Since original subscales and items were adapted, principal component analysis was conducted to identify whether subscale items sufficiently loaded on one dimension and thus could be interpreted as one concept. Items with insufficient loadings on the variable subscale were removed.

Statistical analysis

Descriptive statistics were calculated to describe the population sample. Responses to all items were provided on a 5 point scale; strongly disagree (1); disagree (2); neither agree nor disagree (neutral, 3); agree (4); strongly agree (5). Subsequently, a path analysis was carried out to test the formulated hypotheses (*H1-H10*). The standardised path coefficients (β) and their significance provide information on the relative strength of the hypothesised relationship between variables. Standardised coefficients can vary between -1.00 and +1.00 and indicate how many standard deviations a dependent variable will change, per standard deviation increase in its predictor variable. β -weights around .10, .25, and .40 respectively represent small, medium, and large effects (Lipsey and Wilson 2001).

Results

Descriptive statistics

Table 1 presents the descriptive statistics, correlations (r) between variables and scale reliabilities (α). With regard to the organisational value orientation, coordinators indicated to be ‘neutral’ to experienced control oriented values (internal process; $M = 3.16$, $SD = 0.54$, rational goal values; $M = 3.18$, $SD = 0.52$). Flexibility oriented values; both with an internal focus (human relations; $M = 2.87$, $SD = 0.62$) and an external focus (open systems, $M = 2.90$, $SD = 0.56$) were experienced to a slightly lesser degree. When drawing to the other ‘context’ related variables, staff indicated be neutral with regard to communication satisfaction ($M = 3.05$, $SD = 0.73$) and also tend to neither agree nor disagree with regard to the presence of (positive) leadership. ($M = 3.19$, $SD = 0.60$). The work-related psychological attitude variables reveal that (overall) staff agree to feel empowered in their role as coordinator ($M = 3.99$, $SD = 0.65$), score ‘moderate’ (between neutral and agreement) with regard to their committed to the study programmes ($M = 3.66$, $SD = 0.54$) and agree to experience a sense of ownership of their course ($M = 4.14$, $SD = 0.45$). Moreover, staff tend to agree with quality enhancement practices being enacted upon ($M = 3.85$, $SD = 0.51$). The correlation coefficients for variables being hypothesised to interrelate (*H1-H10*) are presented in Table 1 in bold. These coefficients support most of the hypothesised interrelations between variables.

Table 1: Descriptive statistics, correlations and alpha reliability estimates of quality culture variables.

	<i>M</i> ^o	<i>SD</i>	<i>N</i>	1	2	3	4	5	6	7	8	9	10
1. Human Relations	2.87	.62	86	(.79)									
2. Internal Process	3.16	.54	86	.17	(.73)								
3. Rational Goal	3.18	.52	86	.09	.41**	(.72)							
4. Open Systems	2.90	.56	86	.63**	.04	.21*	(.74)						
5. Leadership	3.19	.60	87	.56**	.32**	.02	.38**	(.83)					
6. Communication	3.05	.73	89	.59**	.26*	.05	.43**	.65**	(.84)				
7. Empowerment	3.99	.65	89	.24*	-.2	-.07	.18	-.05	.06	(.87)			
8. Commitment	3.66	.65	87	.51**	.19	-.05	.25*	.34**	.44**	.22*	(.87)		
9. Ownership	4.14	.45	89	.01	.05	.03	.03	.06	.07	.32**	.22*	(.76)	
10. Quality enhancement	3.85	.51	89	.15	.06	.26*	.16	-.07	.12	.23*	.19	.39**	(.76)

M = Mean, *SD* = Standard Deviation, *N* = Number of observations; ^o Scale 1-5, 1 = strongly disagree, 5 = strongly agree; * Correlation is significant at the < .05 level, ** Correlation is significant at the < .01 level.

Interrelationships between researched variables

Figure 2 presents the path model including tests of the hypothesised relationships between variables as outlined in the conceptual framework; only significant paths are included.

With regard to *H1* the analysis revealed that this hypothesis holds ground for the predicted effect of human relation value orientation on communication satisfaction ($\beta = .28, p < .05$). No relation was found however between the three other organisational value orientations and communication satisfaction. The analysis also provides support for *H2* (a positive relationship between leadership and communication satisfaction ($\beta = .44, p < .001$)).

Both higher degrees of experienced human relation value orientation and open system value orientation were hypothesised to lead to higher degrees of commitment (*H3 a, b*). Whereas the analyses support this thesis for the association between human relation value orientation and commitment ($\beta = .46, p < .001$), no relation was identified between open systems value orientation and commitment.

Human relation value orientation was confirmed to have a positive effect on empowerment (*H4*; $\beta = .38, p < .01$). However, no empirical support could be provided for existence of a (direct) relationship between leadership and the three included work-related psychological attitudes of empowerment, commitment and ownership (*H5 a, b, c*), nor for the contribution of communication satisfaction to experienced staff commitment and empowerment (*H6 a, b*).

When turning to the interrelations between the three work-related psychological attitudes, the analysis indicate that more empowered employees experience higher degrees of ownership (*H7*; $\beta = .33, p < .001$). Only partial support was provided for *H8*, as the relation between empowerment and commitment was found not to be significant (*H8 a*), while ownership did relate to commitment: $\beta = .18$ at $p < .05$ level (*H8 b*). These results imply that an indirect path runs from empowerment to commitment via ownership.

Rational goal and internal process value orientation were predicted antecedents of quality enhancement practices (*H9*). This was only partly confirmed: a direct medium-sized effect exists for rational goal orientations' impact on quality enhancement practices (*H9 a*; $\beta = .29, p < .01$). No relation exists however, between internal process value orientation and quality

enhancement practices (*H9 b*). Finally, of the predicted association of work-related psychological attitudes with quality enhancement practices (*H10 a, b, c*) only the impact of ownership was found to be significant ($\beta = .32, p < .001$).

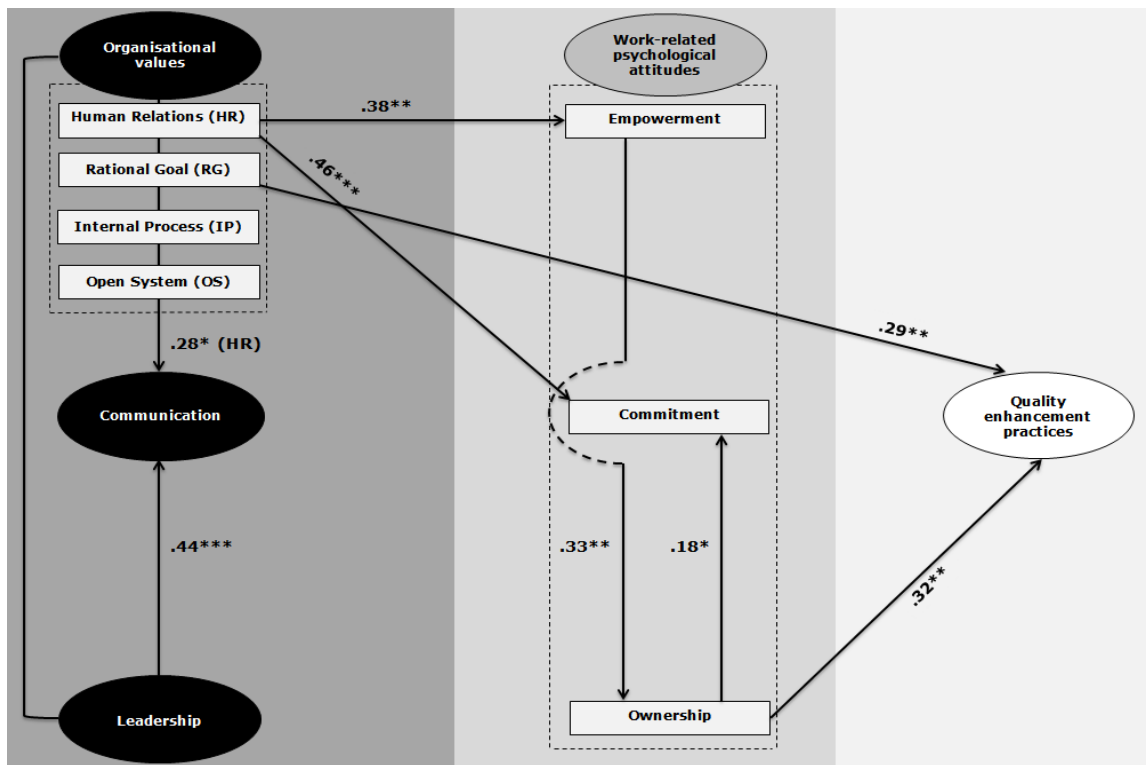


Figure 2: Path model standardised coefficients of the relations between quality culture variables; * $p < .05$; ** $p < .01$, *** $p < .001$.

Discussion

Successfully shaping work-related psychological attitudes of academics is crucial, since these attitudes do not only influence ‘in role’ behaviour (acting in accordance with requirements set by the organisation), but also affect ‘extra role’ behaviour (going beyond the formal requirements of a role) which is an important determinant of productivity, creativity, innovation and overall organisational performance (Van Dyne & Pierce 2004). The results of this study highlight the importance of a ‘human relation’ value orientation in this respect, as this orientation contributes to staff empowerment and commitment, indirectly impacts on ownership and has a positive effect on communication satisfaction. Out of the four organisational value orientations, the human relations value orientation was found to have the strongest correlation with (positive) leadership.

Counter to the hypotheses, no direct relation was identified between leadership and staffs’ experienced empowerment, commitment and ownership. One reason for the finding that



leadership and work-related psychological attitudes were not related can stem from staff self-views as being autonomous and competent professionals (Luedeke 2003). Hence, academics might need a more covert form of leadership entailing protection, support and the management of autonomy (Bryman 2007). A second reason for the absent relation between leadership and psychological work-related attitudes can be derived from the performed path analysis: leadership correlates to a variety of value orientations, which suggest that instead of a direct path from leadership to work-related psychological attitudes, an indirect path runs from leadership to these attitudes via the value orientation reinforced by leaders. Leaders' assertive, participative and cultural/value-influencing behaviours can contribute to positive change outcomes, by promoting collaboration, sharing values in the light of the envisioned change, built trust and facilitate involvement.

The fact that 'rational goal' values emphasising planning, goal attainment, and efficiency, impact on the execution of quality enhancement practices, resembles the significance of the organisational structure/managerial pillar for quality culture development: organisational policies, strategies and guidelines determine to a certain degree whether evaluation and enhancement practices are being executed by staff. In order to reinforce the structural/managerial pillar, as well as the organisational value/psychological pillar for quality culture development, the nurturing of an academic teaching/learning community characterised by collaboration, explicit concern for staff morale, involvement and development as well as the promotion of ownership, need further cultivation.

Discussion questions:

1. Ownership turned out to be an important predictor of quality enhancement practices being carried-out by academic staff members. How would you scale the educational ownership experienced in your institution? In what way/by means of what intervention could ownership be promoted?
2. What leadership features would fuel educational quality enhancement?



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