

MODELING THE ANTECEDENTS AND OUTCOMES OF RAPPORT

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Rapport refers to when two people “click”. While business education researchers have begun to study rapport, most past research has principally focused on students’ perceptions of rapport. Until recently, faculty perceptions of rapport had never been studied nor contrasted with those of students. Understanding this is critical as rapport between faculty and students can improve learning and bestow other positive student and faculty benefits (i.e., Frisby & Martin 2010; Meyers 2009; Starcher 2011; Wilson et al. 2010). Employing qualitative research, Granitz et al. (2009) uncovered faculty’s views of the antecedents and outcomes of rapport between faculty and students. Based on the results of this study, a faculty-student model of rapport was developed (but not tested). This model predicts that Mutual Openness, Respect, Caring and Homophily factors serve as antecedents to rapport. These antecedents are predicted to result in four outcomes, including Enhanced Learning, Motivation to Learn More, Extra Faculty Attention and Relationship Effectiveness. A limitation of this past research lies in the use of qualitative data and convenience sampling.

Employing surveys of business students, the present study empirically tests the model presented by Granitz et al. (2009). Building on this prior qualitative research and past research findings the following hypotheses were derived:

- H1: A higher level of perceived openness will lead to a higher level of perceived rapport
- H2: A higher level of perceived caring will lead to a higher level of perceived rapport
- H3: A higher level of perceived respect/approachability will lead to a higher level of perceived rapport
- H4: A higher level of perceived homophily will lead to a higher level of perceived rapport
- H5: A higher level of perceived rapport will lead to a higher level of perceived motivation to learn more
- H6: A higher level of respect will lead to a higher level of extra faculty attention
- H7: A higher level of perceived respect/approachability will lead to a higher level of perceived better relationship
- H8: A higher level of perceived rapport will lead to a higher expected grade for the student

Methodology & Sample

To test the hypotheses, structural equation modeling was employed and multi-item measures developed for each construct. Based on the results of the qualitative research and previous literature, the measures were modified using the following pre-existing scales: Openness (Wheeless and Grotz, 2006), Caring (Granitz et al. 2009; Hughes 1992), Respect (Porter, Wrench & Hoskinson 2007.), Homophily (McCroskey, McCroskey, & Richmond, 2006), Rapport (Gremier & Gwinner, 2000), Motivation to Learn (Tuan, Chin and Shieh 2005), Extra Faculty

Table 1: CFA - Standardized Loadings and Validity and Reliability

Construct and Scale Items	Standardized Loading	Composite Reliability	Average Variance Extracted	Maximum Shared Variance
Respect/Approachable		0.919	0.790	0.213
My professor respects me	0.832			
My professor is courteous	0.965			
My professor is friendly	0.974			
Accepts my differing opinion	0.947			
Openness		0.964	0.901	0.027
My professor is open about his/her beliefs	0.914			
My professor is honest	0.883			
My professor has clear communications	0.945			
Caring		0.952	0.869	0.298
My professor really cares if we learn from him/her.	0.822			
Students matter to this professor.	0.941			
My professor cares for his students.	0.935			
Homophily		0.903	0.756	0.011
My professor has the same ethnicity as me.	0.809			
My professor and I had a similar life growing up	0.951			
My professor and I are from a similar geographic region	0.844			
Rapport		0.941	0.801	0.242
I click with this professor	0.822			
I feel like there is a connection between this professor and I	0.927			
I care about this professor	0.789			
This professor has taken an interest in me	0.927			
Motivation to learn more		0.924	0.802	0.233
I learned a lot from this professor	0.807			
I learned more in this class than other classes	0.960			
When I find course content difficult, I try and learn it	0.907			
When I make a mistake, I try and learn why	0.760			
Extra Faculty Attention		0.937	0.833	0.653

My professor will help her/his students achieve their professional goals after they graduate.	0.890			
My professor goes the extra mile to help/his/her students succeed.	0.974			
My professor provides career advice.	0.873			
Relationship Effectiveness		0.937	0.832	0.298
I think the time and effort that I spent developing and maintaining this relationship was very worthwhile	0.890			
During this course, my professor fully carried out his/her responsibilities and commitments to me	0.876			
Throughout this course, I was very satisfied with my relationship with the professor	0.951			

Attention (Granitz et al. 2009), and Relationship Effectiveness (Ruekert & Walker, 1987). Expected grade was measured by asking the students who filled out the questionnaire their current grade in the course.

A sample of 276 students was drawn from a major Western, Southwest and Midwest Business School. All were undergraduate students taking upper division courses. The data was collected in the last quarter of the course; we wanted to ensure that students had a chance to develop rapport with the faculty.

Analysis

To analyze the results, we followed a two-step approach. First, we tested a measurement model to describe the relationship between the indicator variables and the latent factors. Confirmatory factor analysis (CFA) was conducted using AMOS. It is an appropriate methodology as all of the scales were pre-existing scales. CFA allows us to work with reliable causes and effects within the structural model. Second, we tested a structural model, describing the relationships between the latent variables. As some of the variables are single indicator variables and others are multiple indicator variables, this is a nonstandard model (Bentler, 1989).

Confirmatory Factor Analysis

Before proceeding with the CFA, data was validated for missing values, the absence of multicollinearity, and the presence of normal distributions (i.e., kurtosis and skewness within allowable tolerance limits). Sample size was within acceptable levels for testing for close fit (MacCallum, Browne and Sugawara, 1996; Ullman, 2006). All factor unit variances were set at 1 and covariances were estimated for every pair of latent factors. No model identification problems were found; consistent parameter estimates were analyzed with different starting values.

In evaluating measures of fit, several statistics were consulted. The chi-square provides a measure of fit, and the p-value should be above .05. In this case, our p-value is .000. In CFA, using large samples, large models and real world data, the chi-square value may be significant, even if the model provides a good fit (James et al., 1982; Tanaka, 1993). Thus, other measures of fit were examined. First the chi-square/df ratio is 1.5, below the recommended 2. Second, the AGFI is .880, above the critical .80, though also sensitive to sample size (Joreskog and Sorbom, 1984). Third, the NFI is .96, above a critical .90 (Bentler & Bonett, 1980). Fourth, with an RMSEA of .048, the model is considered a good fit (MacCallum, Browne and Sugawara, 1996);

Table 2: Summary of Hypotheses

Hypothesis	From	To	Model Support	Estimate	p Value
1	Openness	Rapport	Yes	0.24	.000
2	Caring	Rapport	Yes	0.47	.000
3	Respect/Approachable	Rapport	Yes	0.41	.000
4	Homophily	Rapport	No	0.02	0.438
5	Rapport	Motivation to learn more	Yes	0.63	.000
6	Rapport	Extra faculty attention	Yes	0.51	.000
7	Rapport	Relationship effectiveness	Yes	0.39	.000
8	Rapport	Expected grade	Yes	0.31	.000
Non-Hypothesized Relationships					
9	Caring	Extra Faculty Attention	Yes	0.32	.000
10	Caring	Motivation to Learn More	Yes	0.29	.000

the RMSEA is the most popular measure of fit. PClose is greater than .05 at .446 (Kenny, 2014) and the CFI is .974, above the .93 threshold (Byrne, 1994). Overall, the fit can be described as good.

Other testing checked for composite reliability, convergent validity and discriminant validity. Tests for common latent factors and common method bias showed that the data did not exhibit either. Table 1 shows the standardized loadings, composite reliability, average variance extracted and maximum shared variance.

Structural Model

Similar to the CFA model, in evaluating measures of fit, several statistics were consulted. The chi-square/df ratio is 1.8, AGFI is .933, NFI is .96. At an RMSEA of .055, the model is considered a good fit (MacCallum, Browne and Sugawara, 1996). PClose is .352, and CFI is .983 (Byrne, 1994). Further testing demonstrated composite reliability, convergent validity and discriminant validity. Tests for common latent factors and common method bias showed that the data did not exhibit either.

Results

Table 2 shows the Summary of Hypotheses. Figure 1 demonstrates the factor loadings. Openness, Caring and Respect were significant antecedents of Rapport. Caring had the highest factor loading (.47). Homophily was not a significant predictor of Rapport. As an antecedent, Rapport predicted Extra Faculty Attention, Relationship Effectiveness and Expected Grade. Of note, the strongest effect was for Motivation to Learn. Some results that were not hypothesized include Caring as a direct predictor of Extra Faculty Attention and Motivation to Learn More.

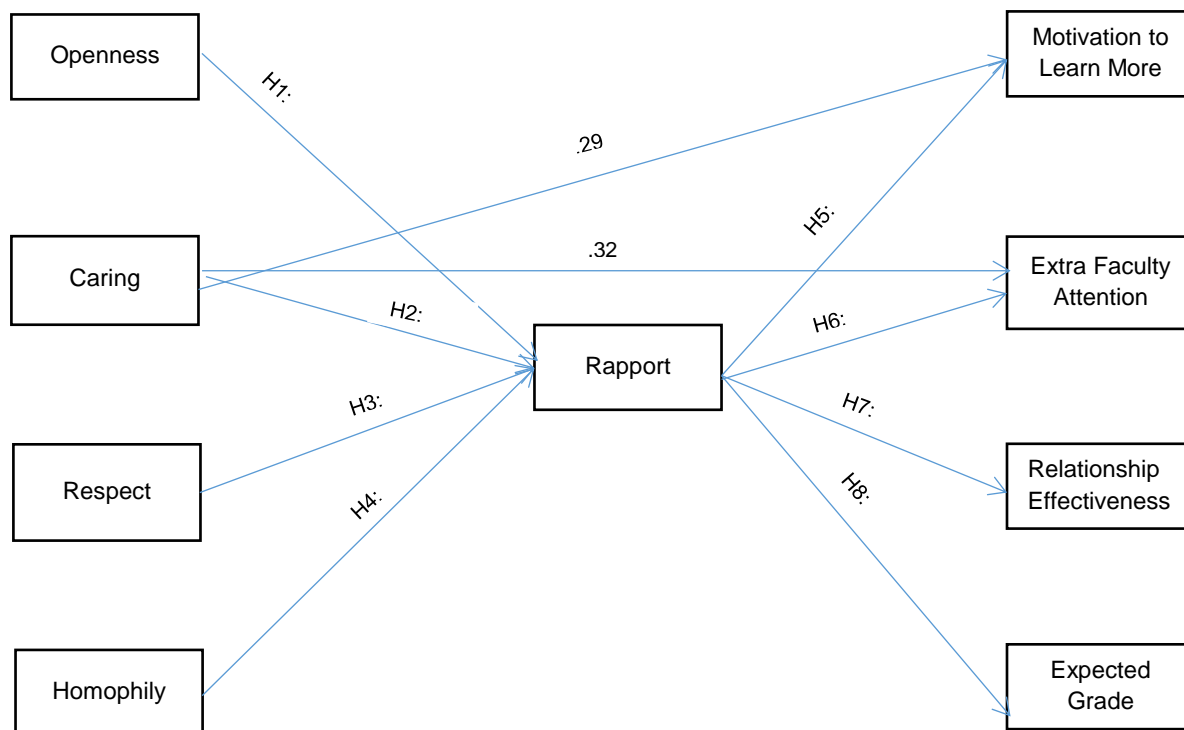


Figure 1: SEM: Hypotheses and Results

Discussion

This research extends our current knowledge of how faculty-student rapport is created in the classroom, as well as the outcomes that result from rapport as perceived by undergraduate students. We had good model fit and all of our hypotheses were supported, except for the relationship between Homophily and Rapport.

Interestingly, the strongest outcome found resulting from positive faculty-student rapport was students' Motivation to Learn More, while the weakest relationship was between Rapport and Expected Grade. This is a refreshing result – by building high levels of rapport with students, professors may be able to shift the focus away from grades and instead place it on the core benefit of getting a college degree – learning. Of course, increased motivation to learn will likely result in an increase in actual learning, which should subsequently improve students' grades. Alternatively, students may try and cultivate rapport with the professor when they are not doing well in the course.

The second strongest outcome of good rapport was the perception of receiving Extra Faculty Attention beyond the experience in the classroom. This is important for faculty to understand in that building positive rapport may lead to increased expectations that the faculty member serve as a mentor after the class is over. If this relationship is not manifested (the faculty member ignores emails or is not willing to meet with the student after the end of the course), the relationship between the student and the university might be impacted in a negative way. In an environment where universities (especially public universities) are increasingly dependent on monetary gifts from alumni, it is important to maintain the student-professor relationship after the end of the course if the student initiates contact.

In terms of initially building the rapport that will lead to the above outcomes, the strongest predictor of Rapport was Caring, followed closely by Respect. These results are interesting in that the professor can achieve high levels of rapport by simply making an attempt to convey a

respectful and caring attitude toward each student. This is not something that necessarily demands a lot of extra time or effort from the faculty member. By simply treating each student as an individual, such as being friendly before and after class and engaging in meaningful discussions about students' lives, faculty can improve the overall student experience in the classroom.

This research study also resulted in some unexpected findings. First, we hypothesized that Homophily between the professor and the student would lead to a higher level of Rapport; however, the results of our study do not support this hypothesis. Our Homophily scale included three items measuring similarity including ethnicity, similar experiences growing up, and being from the same geographic region. It is possible that Homophily does in fact drive increased Rapport, but the scale that we used to measure this construct did not capture the "right" type of similarity. Perhaps similarity in age, gender, style of dress, leisure activities/hobbies, etc. are more important components of Homophily in terms of building Rapport. Another possible explanation for our failure to find a relationship between Homophily and Rapport could be the inability of the students to determine if homophily existed with their professor. For example, if faculty do not disclose their experiences growing up and/or the geographic region in which they grew up, students will not be able to determine if homophily exists. Alternatively, there simply may not been homophily between the faculty and the students.

Second, two unexpected relationships were uncovered that we did not hypothesize. Specifically, we found a direct relationship between Caring and Motivation to Learn More; we also found a direct relationship between Caring and Relationship Effectiveness. Future research could be conducted to more fully flesh out the nature of the relationship between Caring and these outcomes. However, at this point it is important to note that the direct impact of Caring on these two outcomes reinforces the previously discussed importance of faculty being perceived as truly caring for their students. By focusing on just this one factor, professors can increase students' Motivation to Learn More and their perceived Extra Faculty Attention both directly, and indirectly through increased Rapport.

In summation, this research provides information that is consistent with the qualitative research: Rapport can be used by faculty to create more positive outcomes for students. Future research can test which methods of creating rapport work best. For example, what is the best way to show students that faculty care? Additionally, researchers can study the outcomes of student-faculty rapport for faculty.

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