



Instructor Rapport as an Indicator of Student Academic Self-Concept for On-Campus, Online and Hybrid Courses

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Introduction

Previous studies have shown that positive instructor-student relationships are related to improvements in student academic outcomes (Glazier, 2016), student engagement (Klem & Cornell, 2004), and student motivation (Pascarella & Terenzini, 1976). Developing an instructor rapport in the online classroom format may be an even more powerful predictor of student achievement than rapport between students (Vos, 2015). For example, a study of middle school students found that teacher support is positively correlated with student self-esteem (Reddy, Rhodes, & Mulhall, 2003). However, past research on whether instructor-student relationships can predict a student's academic self-concept has been limited. In this study, we aim to examine whether instructor rapport is a significant predictor of student academic self-concept for different ethnic and gender groups.

Hypotheses

We hypothesized that Instructor rapport will be a predictor for Student's Academic Self-Concept. Specifically, we predicted that instructor rapport would be a stronger predictor of academic self-concept for students for online classes, ethnic minority groups, and each gender.

Method

Participants

The sample size consists of 1,743 college students. The majority of the participants identified themselves as Caucasian (41%), following by Hispanic (36%), and African American (11%). 26.5% of the participants were male and 73.5% of the participants were females. 17.1% of the students were enrolled in online classes while 82.8% were in on-campus classes.

Measures

The Student-Instructor Rapport (SIR-9; Lammers & Gillaspay, 2013) and the Professor Student Rapport Scale (PSR-28; Wilson, Ryan, & Pugh, 2010) were used to indicate instructor rapport. The Academic Self-Concept Scale (ASC-40; Reynolds, 1980) was used to measure students' academic self-concept. The mean rating (Avg) was calculated for each scale. The reliability and validity of the three scales were demonstrated (Tatum, 2019; Lammers & Gillaspay, 2013; Cokely et al., 2003).

Procedure

Our data were drawn from a larger database from a questionnaire collected by Psi Beta. The data were collected through an online survey. All participants were recruited by twelve Psi Beta chapters in 2018/2019. The IRB approval was granted by Blinn Community College. In our study, we focus only on the data of the SIR-9, PSR-28, and ASC-40. Data were downloaded as an Excel file and imported into SPSS v. 26, for further analyses.

Results

The multiple correlation analyses showed the variance explained by the independent variable (Table 1). All regressions were significant with $\alpha = .01$. Results indicated that multiple correlations (R) were about equivalent in each grouping variable.

Table 1
Correlations and Significance Tests of Regressions for Grouping Variables

Model Comparisons	R	R ²	R ² _{adj}	SE	F	df
Online	.27	.07	.06	.51	11.22	2, 296
On Campus	.30	.09	.09	.51	72.54	2, 1441
Caucasian	.28	.08	.08	.52	31.16	2, 711
Ethnic Minority	.31	.10	.09	.50	54.28	2, 1026
Female	.31	.09	.09	.52	66.23	2, 1278
Male	.26	.07	.06	.49	16.74	2, 459

The standard multiple regressions showed that among all the grouping variables, SIRS-9 was a better predictor of ASC than PSR-28 (Table 2). SIR-9 was a significant predictor for all the variables ($p < .01$) while PSR-28 was not a significant predictor of ASC for online students, Caucasian students, or male students ($p > .01$).

Table 2
Regression Coefficients of Student-Instructor Rapport Measures on Academic Self Concept

Variables	M	SD	N	B	SE	β	t	p	Tolerance
Online									
ASC Avg	3.51	.53	299	2.69	.18				
SIRS-9 Avg	4.26	.76	299	.17	.04	.24	4.11	.00	.94
PSR-28 Avg	4.02	1.24	299	.03	.03	.07	1.24	.22	.94
On Campus									
ASC Avg	3.42	.53	1444	2.49	.08		31.80	.00	
SIRS-9 Avg	4.32	.80	1444	.18	.02	.28	10.85	.00	.98
PSR-28 Avg	3.94	1.40	1444	.03	.01	.09	3.52	.00	.98
Caucasian									
ASC Avg	3.46	.54	714	2.63	.11		24.49	.00	
SIRS-9 Avg	4.25	.85	714	.16	.02	.25	6.94	.00	.97
PSR-28 Avg	3.89	1.37	714	.04	.01	.09	2.42	.02	.97
Ethnic Minority									
ASC Avg	3.42	.53	1029	2.42	.10		24.98	.00	
SIRS-9 Avg	4.35	.76	1029	.20	.02	.28	9.39	.00	.98
PSR-28 Avg	4.00	1.37	1029	.04	.01	.09	3.03	.00	.98
Female									
ASC Avg	3.44	.54	1281	2.48	.08	3.44	29.44	.00	
SIRS-9 Avg	4.32	.80	1281	.18	.02	.27	9.93	.00	.97
PSR-28 Avg	3.99	1.38	1281	.04	.01	.11	3.92	.00	.97
Male									
ASC Avg	3.42	.50	462	2.66	.14		19.46	.00	
SIRS-9 Avg	4.27	.77	462	.17	.03	.26	5.62	.00	0.99
PSR-28 Avg	3.86	1.35	462	.01	.02	.03	.68	.50	0.99

Discussion

Results partially supported our hypotheses. Contrary to our prediction, instructor rapport is, overall, a stronger predictor of student academic self-concept in on-campus classes than it is in online classes. This result ties in well with previous studies wherein instructors find it more challenging in building rapport through online delivery format than in person (Aquila, 2017). In alignment with our hypothesis, instructor rapport is a stronger predictor for ethnic minority students than for Caucasian students. The result is consistent with a previous study that African Americans students do not hold the belief that efforts contributes to good grades in their academic self-concept, contrary to European American students (Cokley et al., 2003). Lastly, our findings showed that instructor rapport is a stronger predictor for female students than male students. The result is in line with previous research that instructor support was found to be more significant in girls than boys (Goodenow, 1993). Generally speaking, our study appears to validate the view that the interpersonal relationship between instructors and students can be a predictor of students' self-concept.

Limitations

There are some limitations in this study. Because of the lack of sample size, we decided not to investigate instructor rapport as an indicator of student academic self-concept for hybrid courses. Another limitation is that the data were collected from 12 Psi Beta chapters across the country. Therefore, This population may not be representative of the general college student population.

Implications

Studying the relationship between instructor-student rapport and academic self-concept in different delivery modes has implications for guiding future research in improving academic outcomes. Given the importance of instructor-student rapport, future research should identify the specific behaviors and actions that increase rapport in online versus on campus classrooms. Rapport building techniques that are successful in online classrooms may differ from those techniques that are successful in face-to-face classrooms.

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