Student engagement and learning outcomes in the model United Nations

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Abstract
This article explores the effect of student engagement on learning outcomes associated with students' participation in Model United Nations. We developed an objective assessment of learning outcomes by fielding a survey to conference participants and measuring their general knowledge of the United Nations. We follow-up the survey by asking faculty advisors to report on student outcomes and on the level of activity of Model UN student groups. As predicted by previous research, expectations established by a supportive peer group provide a powerful incentive for student learning, even exceeding the influence of formal instruction in a dedicated credit-bearing course.

Practitioner Notes
1. Support should be directed towards faculty advisors who work directly with students and who serve as advisors to student clubs, in addition to those who develop credit-bearing courses and curriculum.
2. Instructors should design simulations with check-ins and debriefings to remind students to remain engaged and committed to their own learning throughout the semester.
3. Yet this message is more effective when it is reinforced by their peers.

Keywords
Active learning simulations, student experience, civic engagement, Model UN, pedagogy

Introduction

Over the past several decades, teacher-scholars in higher education embraced experiential learning, ranging from classroom simulations to community service projects. In doing so, they followed Kolb's (1984) Experiential Learning Theory (ELT), which prescribes learning by immersing students in concrete experiences that require their active participation, ideally in combination with reflection and abstract conceptualization. Initial studies of experiential pedagogy indicate that this approach can improve a wide array of desired learning outcomes ranging from better recall of substantive knowledge to in-depth understanding of complex real-world phenomena (Warnick & Schmidt, 2014). Advocates of ELT claim it better serves students who prefer hands-on learning, especially as these students are mismatched with the heavy reliance on lectures that characterizes much of teaching and learning in higher education (Boeckelman et al., 2008).

Yet the nature of most pedagogy research makes identifying which aspects of experiential learning most responsible for these outcomes difficult. Data are often collected by a single instructor who incorporates several innovative learning experiences into their courses. Thus, the effects of distinct learning experiences, a particular instructor's personality, or a specific campus culture are intertwined. Learning outcomes that result from student engagement in co-curricular peer learning are also often overlooked.

In addition, research on college students has long indicated that women experience a chilly climate on most college campuses (Astin, 1990; Hall & Sandler, 1982; Sax et al., 2008). Higher education scholars have recently called for more attention to the way demographic identities affect students' reactions to experiential learning (McNair et al., 2020). Yet studies of experiential learning adopted by a single professor or on a single campus often have a small sample size, which precludes separate statistical analysis of women and other minoritized students' learning outcomes.

To address both methodological concerns, this project examines student experiences in a well-established immersive international relations (IR) simulation that has been adopted on college and university campuses across the globe – Model United Nations (MUN). Specifically, we assess whether the way students prepared to participate in MUN affected students' general knowledge of the United Nations and core international relations concepts. We developed and administered a survey to students who attended the 2014 American Model United Nations (AMUN) in Chicago, Illinois, which attracts participants from nearly 150 colleges and universities. This student questionnaire was supplemented with a survey of faculty advisors who attended the 2016 AMUN. Contrary to past researchers' emphasis on the effects of their own in-class instruction, our analysis reveals the feature of experiential learning with the biggest effect on learning outcomes is the peer-to-peer interactions that occur when students participate in a student-led MUN campus club. Notably, women are more likely than men to join and lead campus clubs in general (Kinzie et al., 2007; Sax, 2009; Sax et al., 2008). Hence, we conclude that encouraging students to establish and participate in campus clubs is an overall best practice. Moreover, we discuss whether preparation via student clubs can help improve women's learning outcomes, especially when experiential learning simulations require them to perform roles traditionally associated with men and masculinity (Coughlin, 2013; Engel et al., 2019; Rosenthal et al., 2001).

Literature review

Experiential learning and international relations' embrace of model UN (MUN)

Instructors in political science, international relations, and closely related disciplines responded to higher education's embrace of experiential learning by adopting simulations (Asal, 2005; Asal & Blake, 2006; Starkey & Blake, 2001). According to Asal et al. (2013), political scientists were already familiar with simulations, which they use to understand complex social processes that were not amenable to more traditional experimental research designs. Adopting them to enhance teaching was an extension of this research-focused work. Simulations were embraced in the classroom for reasons that resonate with ELT advocates. Namely, to increase familiarity and in-depth understanding of complex theory, enliven dry materials, and allow students to make decisions and participate in the processes they could otherwise only read about. Those who have adopted teaching through simulations claim that they "more effectively result in deeper understanding of what we are trying to teach and the 'real world' students will find themselves in after graduation" (Asal et al., 2013, p.129).

By far, the most popular active learning simulation adopted in these disciplines is Model United Nations (MUN). Each year about 400,000 students, at all educational levels and in 35 countries across the globe, participate in academic competitions where students act as UN delegates in a carefully coordinated simulation of the United Nations (UN) (Crossley-Frolick, 2010, p. 184; Glasgow, 2014). Some refer to MUN as "the quintessential example of 'active learning' pedagogy in the field of international relations" (Ripley et al., 2009, p. 55). Increasing numbers of faculty are finding ways to incorporate MUN classes into their curricular offerings, and to devise alternatives even when regional conference attendance is not feasible for their students (Ripley et al., 2009). Relying largely on self-reported data, teacher scholars initially found that students perceived their preparation for and participation in MUN to be beneficial (Hazelton & Jacobs, 1983). A follow-up study outlined a number of positive student learning outcomes, including increased substantive knowledge of diplomatic strategies and outcomes, enhanced understanding of key international relations concepts, and altered attitudes toward diplomatic relations with other countries (Hazelton & Mahurin, 1986).

Given the growing popularity of Model UN and simulations in general, Asal (2005) called for increased attention to best practices for incorporating simulations into the curriculum, as well as for assessing their effects on learning outcomes. Teacher scholars responded and scholarly work on both simulations in general and on MUN have flourished. As Wunische (2019) notes, by 2019 the *Journal of Political Science Education* alone had published 77 articles and two special issues dedicated to the use of simulations in political science classrooms.

Assessment of model UN focuses on instructors' influence

Since teacher-scholars in these disciplines initially sought guidance from ELT, it should come as no surprise that the extant literature on this topic focuses almost exclusively on faculty choices. In the tradition of Asal (2005), many authors continue to provide helpful, in-depth advice or examples drawn from their own teaching of how to embed ELT best practices for active learning and simulations into the curriculum. Meanwhile, scholarship of teaching and learning (SoTL) tends to assess faculty influence, either through advising, course design, or curricular scaffolding, on desired student learning outcomes. Several scholars emphasize the importance of preparing students by one of the following: scaffolding learning about MUN throughout the curriculum,

adequately preparing students with conceptual knowledge in semester-long courses, consistently tying students' simulation experiences to relevant IR theories, selecting appropriate topics to ensure relevant scholarly concepts and theories are germane to student experiences, and relying on activities like debriefing to continually engage students and reinforce scholarly learning (Asal, 2005; Asal & Kratoville 2013; Haack, 2008; Engles et al., 2011; Hammond & Albert, 2019; Williams, 2020). As one SoTL piece concludes, under the "ideal conditions" such as those created by the co-authors' attention to curricular detail, students can "develop a great interest in the issues they are assigned" and can "garner an appreciation for the complexity of international policy formation, negotiation, and implementation" (Ripley et al., 2009, p. 55). The theme of this work, like many SoTL pieces about IR simulations, is how professors can bring these "ideal conditions" to fruition in the classroom.

Methodological flaws in measuring model UN learning outcomes

SoTL research on MUN and IR simulations over the past several decades focused on cultivating faculty expertise to implement effective simulations and experiential learning techniques. While this focus has made a valuable contribution to teacher-scholars' professional development, meta-analysis indicates one consequence of detailing and assessing individual efforts to adopt best practices has been lack of rigor in assessment (Baranowski & Weir, 2010; Wunische, 2019). In addition to relying on single classroom or campus studies, when these SoTL contributions include assessment of learning outcomes, "they are usually done in anecdotal ways by simply surveying participants and asking if they enjoyed the lesson, or by using weak self-assessments of learning outcomes" (Wunische, 2019, p. 37). This weakness results from several reasons, including researchers' emphasis on simulations' ability to promote higher-order learning objectives such as students' conceptual and theoretical sophistication, process skills, and meta-cognition. Fewer assessments have focused on whether students who participate in simulations make improvements in lower learning objectives, which include immediate and long-term recall of substantive course content (Rackaway & Goertzen, 2008). Yet assessing higher order learning outcomes rigorously to ascertain whether programs like MUN are effective would ideally not only require more experimental research (Baranowski & Weir, 2019; Wunische, 2019), but large-N, cross-campus data-collection and a pool of scholars applying a valid rubric with high levels of inter-coder reliability. The time-intense nature of such work is almost certainly why many SoTL researchers turn to their own students as subjects and to metrics grounded in anecdotal evidence and self-reported gains in skill or course satisfaction. The result, however, is that "little evidence suggests that active learning exercises facilitate learning and in many cases the designers of such exercises simply assert that their exercises enhance learning" (Shellman & Turan, 2006, p. 20). As Krain and Lantis (2006) conclude, "very few studies confirm our experiences (and convictions) that such exercises are truly effective methods for teaching political science and international relations" (p. 399).

Finally, studies with a more rigorous research design often fail to replicate claims that simulations outperform traditional instruction. Raymond (2010) found little difference in recall of course content between students enrolled in a traditional IR classroom and those who participated in simulations.

Women's experiences on campus and in model UN simulations

Assessment of MUN does, however, consistently document that women experience sexism and social sanction when they participate in MUN conferences (Coughlin, 2013; Engel et al., 2019; Rosenthal et al., 2001). This experience fits with higher education research on the "chilly" campus

climate for women (Astin 1990; Hall & Sandler 1982). Women and men have different reactions to similar learning experiences on campus because women experience overt social sanction and microaggressions when they participate in activities previously reserved for men. The result of this "everyday sexism" is that women students are more likely than male peers to experience erosion of academic self-confidence and professional aspirations across four years on campus (Sax, 2009; Sax et al., 2008; Swim et al., 2001). Experiential learning and simulations, especially in fields like political science, require women to undertake activities associated with men and masculinity, which increases the likelihood that they will have negative experiences (Poloni-Staudinger & Strachan, 2020). Well-intentioned instructor efforts to disrupt this dynamic can backfire. Engel et al. (2019) found an intervention to better prepare women students resulted in a gender stereotype threat that exacerbated rather than improved outcomes for women. Their women students participated in MUN less than men, especially when the simulation required taking positions on traditionally masculine topics, such as budgeting and use of military force. Women also earned lower grades and were less likely to report improved negotiating skills than their male peers (Engel et al., 2019).

Despite gender-equity concerns and lack of rigorous assessment data, simulations are an increasingly popular experiential learning pedagogy in part because current college students prefer hands-on learning (Giovanello et al., 2013; Purcell, 2020, although see Raymond, 2010). Simulations also help faculty demonstrate commitment to experiential learning pedagogy that college and university administers associate with student success, persistence, and retention (Coker et al., 2017; Krain & Lantis, 2006). Given that the popularity of simulations overall and MUN in IR classes is unlikely to dissipate, finding ways to assess and improve student experiences and learning outcomes is a priority. Identifying best practices is especially important at a time when many teacher scholars are stretched thin by the pandemic and do not always have the time, resources, or incentives to support women students or to scaffold conceptual and theoretical knowledge (Haack, 2008). Many instructors prefer less-taxing ways to incorporate experiential learning and simulations into their teaching rotation (Glazier, 2011).

Student engagement and peer norms as a best practice for experiential learning

A more sustainable approach to simulations in general and for MUN specifically may be to turn to research on student engagement and cultivation of supportive peer norms rather ELT's emphasis on instructor choices. This approach is promising, as Asal and Kratoville (2013, p. 141) note that keeping students engaged is one of the most important "keys to developing an effective simulation." Publications about simulations recognize that competition and collaboration among peers can heighten student motivation to learn (Mikalayeva, 2016) and that experiential learning often cultivates students' intrinsic identity and sense of "belonging" on campus. These are the shifts in attitudes linked to student motivation, persistence, academic success, and retention (Hausmann et al., 2007; Ingram, 2012). Yet little work has explored how such outcomes occur, to determine which, if any, student engagement practices are associated with improved learning outcomes in simulations.

Despite critics who associate student engagement on campus primarily with socializing (Arum & Roksa, 2011), advocates of an engaged campus argue that better academic and civic learning occur when students become members of a campus community that shapes their norms and identities. The goal of the student engagement movement, for example, is to transform students into active learners with intrinsic motivation for academic work, while that of the civic engagement movement is to transform them into similarly motivated participatory citizens (Strachan, 2015; Strachan & Bennion, 2016). The socialization that yields such outcomes on student motivation and

performance is more likely to occur when campuses provide students with opportunities for meaningful learning experiences where they demonstrate expertise and ability in relevant settings outside of the classroom. These outcomes are even more likely when peer norms on campus reinforce the understanding that taking part in these co-curricular and extra-curricular opportunities is expected (Strachan, 2015).

Further, while professors and administrators can do a great deal to cultivate engaged norms on campus, it should not come as a surprise that peers typically have far more influence on their counterparts than authority figures. Students spend more time with other classmates than they do with professors, and research notes the connection between college peer groups and the development of students' attitudes, values, and behaviors (Bean, 1985; Kuh & Umbach, 2004; Pascarella,1985). Interviews with undergraduates attending ''involving colleges,'' which are known for the quality of their out-of-class activities, reveal the extent of this influence. Interviewees described relationships with other pupils as the ''high points of their undergraduate experience'' and recognized that ''their peers influence them in ways that faculty members or classes never could'' (Kuh et al., 1991, p. 192). Higher education institutions achieving the status of an ''involving college'' typically have student subcultures that promote beneficial out-of-class activities supportive of the college's educational mission (Kuh et al., 1991, p. 193). On such campuses, students become more willing to spend their time on mundane academic tasks (reading, studying, and honing relevant skills) because they know that everyone, but perhaps especially their peers, will expect them to demonstrate deep learning of substantive material and mastery of relevant abilities in the near future. Cultivating this type of campus culture is especially important for campuses with increasing numbers of at-risk students, because intrinsic motivation to read study and practice is the most effective way to help students compensate for poor academic preparation (Kuh, 2008, 1995; Kuh et al., 2005, 1991). Further, the connection to peer groups and sense of community that engaged campuses cultivate also increases retention of minority, minoritized, and first-generation students, who often have difficulty transitioning to college life (Fischer, 2007).

Hence learning that occurs through participation in MUN should improve when peers, in addition to faculty, hold one another accountable for their performance at MUN conferences (Strachan, 2015). In the United States, peer-to-peer mentoring for MUN is most likely to take place in student-run campus clubs. Thus, we hypothesize that co-curricular participation in student-run MUN clubs will motivate students to become active, engaged learners and to improve learning outcomes.

Notably, given gender-equity concerns that plague MUN, women students are more likely to join these types of student organization and to serve as leaders in co-curricular activities (Kinzie et al., 2007; Sax, 2009, Sax et al., 2008). More reliance on campus clubs may not only improve student learning overall, but may help to improve women's learning experiences when they participate on simulations like MUN (Coughlin, 2013; Engel et al., 2019; Rosenthal et al., 2001).

Method

While we were not able to undertake a randomized experiment or a labor-intensive multi-campus qualitative coding project, we wanted to assess student learning in typical MUN experiences. To avoid relying on a student subjects who only experienced MUN preparations in an exceptionally well-designed class or on a campus with ideal curricular scaffolding, we administered a survey to all students who participated in the 2014 AMUN conference. The questionnaire included prompts

for descriptive information about participation in courses and co-curricular activities in preparation for the AMUN simulation, with additional items measuring students' demographic identities and interests, along with attitudes about AMUN simulation and the United Nations. To avoid inaccuracies associated with relying on subjective anecdotal evidence and/or students' potentially inflated assessment of their own learning (Ross, 2006), we developed an objective measure designed to assess students' ability to accurately recall substantive knowledge. Items measured familiarity with the United Nations, key member states, and issues on the agenda of the UN. While this measure may not focus on simulations' strength in facilitating higher-order learning, we believe the ability to develop an objective measure of learning is a reasonable trade-off. Further, while simulations are one of the best ways to facilitate higher-order learning, they also provide memorable, multi-sensory learning experiences that should facilitate better short-term, and especially long-term, recall of substantive information (Krain & Lantis, 2006; Nishikawa & Jaeger, 2011). Therefore, it seems reasonable to anticipate that participating in MUN should help students retain substantive knowledge about the UN and that different ways of preparing to compete in MUN may result in retention of different levels of substantive knowledge.

We made the survey available via Survey Monkey to students on November 10, 2014 and accepted responses right up until the beginning of the conference on November 22nd. This schedule allowed us to capture students' responses after preparation time on their home campuses had ended or was soon to do so, but just prior to their participation in the simulation. We sent an email to faculty advisors and student leaders registered to participate in the 2014 AMUN conference and asked them to invite their students to complete the survey. We received 139 responses to the pre-conference survey, for a response rate equal to about 9 percent.

Results and discussion

The questionnaire included 10 items that tested general knowledge about the UN. We report these questions and the number of correct responses to each of them in a supplementary file. As anticipated, most students participating in AMUN had good general familiarity of the UN. As shown in table 1 above, every student answered at least one question correctly but only three students earned a perfect score of 10 questions answered correctly out of 10. The median score equals 7.5 while the mean equals 7.2. The results were skewed so that 75 percent of students answered at least nine out of 10 questions correctly, while 25 percent gave six or fewer correct responses. If we were to exclude a very difficult question regarding the sponsorship of UN peacekeeping operations, 30 (22.4%) students would earn perfect scores.

Table 2 reports the results of six ordered logistic regressions on the knowledge index described above.[1] The first three models include academic and demographic background variables, while the remaining three include our variable of interest and other means of preparing to compete in the MUN simulation. All the equations include an important control variable: the time, in minutes, the respondent spent answering the survey questions. This enables us to control for respondents who are simply clicking through the survey as quickly as possible, as well as those who might take more time because they are attempting to look up the answers to the questions while taking the

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[1] Since, as we have shown, the questions vary in their levels of difficulty, the index is ordinal rather than interval. Therefore, our analysis employs ordered logistic regressions. We also use the Huber White "sandwich" robust standard errors since students cluster by college/university. We used Stata 15.0 to perform the analyses.

survey.[2] Beyond this variable, which was significant in every model, we chose to add and substitute variables in increments given the rather limited degrees of freedom.

Table 1
Summary of UN general knowledge index

Number of correct responses	Frequency	Valid percent
0	0	0.0%
1	2	1.5%
2	0	0.0%
3	6	4.5%
4	6	4.5%
5	8	6.0%
6	13	9.7%
7	32	23.9%
8	33	24.6%
9	31	23.1%
10	3	2.2%
Total	134	100%
Median	7.5	
Mean	7.2	
75th percentile	9	
25th percentile	6	

For example, in column one we include two academic variables assessing students' general academic preparation and accomplishment. Specifically, we find that the previous number of political science and international relations courses a student has taken, as well as their grade point average, are both important predictors of students' UN knowledge. Supporting the importance of curricular scaffolding (Haack, 2008), taking an additional course in IR or political science increases the odds of answering an additional question correctly by about 20%. Meanwhile a one-point increase in a student's GPA nearly triples the odds of answering an additional question correctly. These findings, linking curriculum and academic performance to learning, lend validity to our measure of student knowledge.

In the next column, we substitute the academic background variables for two demographic attributes: gender and age. The third column includes all four of our background variables. While the odds ratio suggests that men are more likely to score higher than women on the index, a finding that would be consistent with gendered differences in political knowledge among the broader public (Burns et al., 2001; Delli-Carpini & Keeter, 2000; Dow, 2009, although also see Dolan, 2011; Miller, 2019), it is not statistically significant in either of our models in these columns. Lack of significance likely reflects the difference between women in the general population and women who have opted to participate into a simulation about international politics.

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[2] We are grateful to Jeremy Castle for assistance with the specification of this model. We experimented with logarithmic functions for time spent answering the survey, but these transformations made no substantive difference to our conclusions.

Respondents' age also has no effect on substantive learning. Just as in the first column, time spent competing the survey, taking additional IR or political science classes, and better academic achievement (higher GPA) are all associated with a greater likelihood of successfully answering questions about the UN. GPA continues to be the most important of these variables, as an additional point increases the odds of having correctly answered an additional question by about three and a half times.

Table 2
Ordered logistic regressions on knowledge index

Model	1	2	3	4	5	6
Time spent survey (minutes)	**1.003 (1.002-1.004)	**1.002 (1.001-1.003)	**1.003 (1.002-1.004)	**1.003 (1.002-1.003)	**1.002 (1.001-1.003)	**1.003 (1.002-1.004)
Previous # IR and PSC classes	**1.203 (1.056-1.371)		*1.146 (1.026-1.281)	**1.243 (1.071-1.443)		**1.181 (1.056-1.322)
GPA	*2.659 (1.073-6.590)		**3.561 (1.446-8.770)	2.164 (0.969-4.832)		**2.984 (1.073-6.590)
Gender (male=1)		1.466 (0.815-2.635)	1.440 (0.737-2.811)		1.369 (0.701-2.674)	1.243 (0.616-2.507)
Age in years		1.112 (0.960-1.287)	1.112 (0.941-1.313)		1.124 (0.955-1.324)	1.131 (0.975-1.313)
Member MUN club				*1.919 (1.006-3.658)	*2.087 (1.034-4.210)	*2.132 (1.040-4.369)
Preparation time spent (ordinal)				0.968 (0.907-1.033)	1.002 (0.927-1.082)	0.959 (0.894-1.028)
Enrolled in MUN class				0.629 (0.264-1.499)	0.656 (0.305-1.411)	0.691 (0.296-1.614)
Previous Model UN experiences				1.004 (0.620-1.624)	1.064 (0.664-1.707)	1.003 (0.621-1.620)
N	118	132	118	118	132	114

** $p<0.01$. * $p<0.05$
Note. Top number is the odds ratio; Lower- and upper-limits of 95% confidence intervals reported below each ratio. Standard errors (s.e.) adjusted for 29 (models 2 & 5) and 26 universities.

The next three columns include preparation variables, including our primary variable of interest, joining a student MUN organization. In each of the three equations, club membership is the only statistically significant predictor of students' general knowledge of the UN, with members being about twice as likely to score one point higher on the index as non-members are. This finding suggests that belonging to a student organization promotes positive learning outcomes, when other types of preparation including the amount of time spent preparing for a simulation, whether a student is enrolled in a course for credit, or even the number of times a student has previously participated in MUN, did not. In short, belonging to a student group with peers promotes knowledge of academic subject matter, increasing the odds of scoring higher on our knowledge index almost as much the difference between being a "C" or "B" student, which puts this finding in better perspective.

Given our finding of the importance of club membership in predicting learning outcomes, we followed-up our 2014 student survey with a short survey of MUN faculty advisors. We asked these advisors to complete a brief questionnaire in 2016 during meetings regularly scheduled for them at the annual AMUN simulation in Chicago, Illinois. We received 31 responses, which represents about one-third of the faculty in attendance.[3] While this small sample obviously limits any statistical findings we might obtain from the survey, we did find some evidence that lends support to our results from the student assessment. We report these findings in Table 3.

Table 3
Faculty advisor survey: Cross-tabulation of impact on students and activity level of club

		How active is the RSO?					
		Not active at all/No club	Somewhat inactive	Neutral	Somewhat active	Highly Active	Totals
Do you feel Model UN has an overall positive impact on students?	No, not at all	0	0	0	0	0	0
	No	0	0	0	0	0	0
	Neutral	0	0	0	0	0	0
	Yes	1	0	1	3	1	6
	Yes, very much	6	0	0	6	13	25
Totals		7	0	1	9	14	31

As we can see by looking at the row and column totals in the table, just over three-quarters of faculty reported having a MUN student club at their institution and a somewhat larger share, 25 of

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[3] Faculty advisors are not required to register and pay a fee at AMUN, as they are at some simulations, so it is difficult to know the exact number of faculty advisors in attendance. However, the Executive Director estimated it at between 80 and 85 advisors (Shannon L. Dunn, *personal correspondence*, February 13, 2017).

the 31, reported that the MUN has "very much" had "an overall positive impact on students." The remaining six faculty advisors replied "yes" and agreed that the overall impact was positive. However, there was a bit wider level of variation reported in these clubs' activity levels. Seven advisors reported either that there was no club or that it was not active at all; one reported that the club was neither active nor inactive; nine indicated that the club was "somewhat active;" and the remaining 14 described the MUN club at their institution as "highly active." The Chi-Square value (6.75) shows that the positive relationship between club activity and advisors' sense that MUN has had a positive impact on students is significant at the $p<0.10$ level.[4]

While we certainly understand the tenuousness of the results in the previous table, several advisors included comments in an open-ended question that also signifies the importance of student organizations to student engagement, supportive peer norms, and desired learning outcomes. For example, one faculty colleague wrote that the MUN helps students find ways "to 'connect' to the university student-body, as they fundraise and 'educate' others in the student community on what the United Nations and international perspective are." Another wrote that MUN could help student retention, especially those students who "are not A-B students, but more like C students." This advisor suggested that MUN "has helped to keep these students engaged in academics in alternative ways and in some instances may help with social interaction, too." Finally, one faculty advisor wrote that their MUN students "developed connections with each other and encouraged each other to develop independent research beyond Model UN. In other words, the network traveled outside of the MUN setting." While anecdotal, these comments in combination with the statistically significant link between student organizations and student learning warrant further investigation of co-curricular participation to bolster student experiences in MUN simulations. In sum, our findings support claims that student engagement facilitated by peer norms, promotes student learning of substantive knowledge. While those who choose to participate in MUN are likely to be a self-selected group of motivated, high-performing students to begin with, the only measures aside from GPA and curricular scaffolding consistently linked to higher scores on our knowledge index was membership in co-curricular student groups, where students held one another accountable for their performance in the upcoming simulation. As the student engagement literature predicts, the expectations established by a supportive peer group serve as a powerful incentive for student learning, with effects that appear to trump even formal instruction in a dedicated course for credit. Moreover, the gap between gendered knowledge shrunk when we controlled for this variable, suggesting that women benefit from these co-curricular activities more than their male peers.

Conclusions

Our findings correspond to longstanding recommendations about campus life in extant student engagement literature and provide insight into a potential best practice for IR experiential learning pedagogy that has been largely overlooked in previous studies about experiential learning in general and about MUN specifically. Faculty, through mentorship and curricular design, can do a great deal to convey the expectation that students are expected to demonstrate deep learning of substantive material and mastery of relevant skills. Further, the way instructors design simulations, with check-ins and debriefings, can remind students to remain engaged and committed to their own learning throughout the semester. Yet this message packs more punch with students when it is reinforced by their peers. As the student engagement literature would predict, peer norms bolster

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[4] Directional tests of association such as Somer's d show this positive relationship, but the coefficient reports a t-value equal to 1.245 and is thus not statistically significant.

classmates' motivation to prepare so that they can perform according to expectations (Kuh, 2008, 1995; Kuh et al., 2005, 1991). Future research should build on this preliminary finding. Potential questions for exploration include whether, as the student engagement literature predicts, student clubs can increase the persistence and performance of at-risk students and under-prepared students by bolstering their motivation, as well as whether it can increase retention of minoritized and first-generation students by cultivating a stronger sense of belonging on campus (Fischer, 2017). Another area of research should be the role women students play in student clubs. Women are more apt than men to join student organizations and to be engaged in campus life (Kinzie et al., 2007; Sax, 2009; Sax et al., 2008). Our findings suggest that prominent roles in campus clubs can help to compensate for women students' experiences of overt sexism and microaggressions when they participate in simulations like MUN (Coughlin, 2013; Engel et al., 2019; Rosenthal et al., 2001). Further, students still require guidance and oversight in co-curricular pursuits, as students left entirely to their own devices can cultivate peer norms that undermine our goals for student learning rather than reinforce them (Pascarella, 1985; Strachan & Senter, 2013). Hence future research should also address professors' roles as faculty advisors, and ways departments can support professors who work directly with students and who serve as advisors to student clubs, in addition to those who develop credit-bearing courses and curriculum.

Helping students establish a campus club is not an onerous task. The student affairs unit on US college campuses has staff who are responsible for helping students found clubs of interest, as well as recruiting students to participate in well-established student organizations. Staff also coordinate workshops, where they teach students basic organizations skills, including: holding elections drafting by-laws, relying on committees, using Roberts Rules of Order, running fundraisers, and budgeting for educational programs. In a MUN club, these activities are undertaken to support travel to MUN conferences, as well as to help prepare fellow MUN members to compete in them. While faculty advisors provide insight, support and continuity, the students themselves take on a leading role in helping one another prepare for competitions. At colleges and universities without similar infrastructure, faculty would bear more responsibility for helping students launch and sustain a campus club.

Overall, this research supports the long-standing insight from extant student engagement and higher education literature that peer norms play an important role in bolstering student motivation to learn. Given the need to find ways to continue to facilitate active learning experiences when faculty time and resources are eroded, future IR pedagogy and SoTL research should continue to explore the most effective ways to leverage co-curricular activities like student-run Model UN clubs in ways that support our educational mission.

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