When Public Administration Education Switches Online: Student Perceptions during COVID-19

Abstract

Public administration education is traditionally known for its emphasis on interaction, discussion and experiential-learning, which require effective in-person instructions. With COVID-19 pushing many programmes across the globe to be delivered online rather than in-person, how this shift has affected student experience in public administration programs has been a pertinent and important inquiry. This paper addresses the question through two surveys of 147 students in total, at a graduate-level public policy school in Singapore. Two distinctive waves of data collection allow us to capture a nuanced picture of student perceptions both when online teaching was introduced as an emergency response and when it was planned as a deliberate strategy later on. Our findings suggest that students consistently reported a decline in participation and interaction in an online setting, compared with a face-to-face setting. Our study fills a critical gap in the literature related to online public administration education in Asia, while the immediate constraints it highlights and lessons it offers on maintaining a highly interactive and engaging public administration education are likely to apply for educators elsewhere both during and beyond the COVID-19 era.

Keywords: COVID-19; higher education; online education; student perception; public administration education; Asia

Introduction

At its core, public administration education (as well as that of related fields of public policy and public management) aims to inculcate and enhance, what has been termed, 'policy work' skills amongst its students (Kohoutek et al., 2018). This is underpinned by a fundamental

acknowledgement that the work of a typical public administrator and manager today is seldom restricted to traditional public-sector activities and analytical techniques. Instead, it also involves communication, coordination, negotiation, conflict management, sensitivity to human rights and diversity, and problem-solving techniques (Jreisat, 2011). Exposure to international experiences (Hou et al., 2011) and an incorporation of local knowledge (Veselý, 2020) is considered to be an important component of policy training to acquaint students with diverse perspectives and encourage them to contextualise it against their own experiences. Accordingly, instead of relying solely on the instructor, graduate courses offered in schools of public administration deliberately encourage self-learning with an emphasis on drawing upon the experiences of the learner (Savard et al., 2020). This places at the forefront a highly 'interactive' educational model for the discipline that combines pedagogical and andragogical elements in the classroom through methods such as case studies, collaborative group projects, extensive class participation and discussion (White, 2000), in addition to client-based projects (Meltzer, 2013).

All of these teaching elements/ pedagogical tools to foster interaction have typically been created, developed and practised in a face-to-face format of a traditional classroom. *How, then, does such a classroom fare with a switch to online education?* Investigating this question is both imperative and appropriate given the large-scale switch to online education that has occurred worldwide in the wake of the COVID-19 pandemic since the beginning of 2020. On one hand, the constantly evolving pandemic situation (Akter et al., 2021) and the ensuing uncertainty demands that universities have to be prepared to shift to online education suddenly (see e.g. Harvard University, 2021). This suggests that lessons learned so far will continue to be relevant for online education in the future. On the other hand, having experienced the pandemic for over two years presents an opportunity to investigate *whether and how the experiences of public administration students varied with online education when it was*

Manuscript for *Teaching Public Administration*

implemented as an emergency response measure in the initial stages of the pandemic, as compared to when it was introduced later in the pandemic in a planned and calibrated manner.

Through answering these research questions identified above, this paper joins the literature on online public administration in general and a much more recent literature on online public administration education during COVID-19 with the following contributions. First, when scrutinising the impact of online public administration education, many earlier empirical studies tend to focus either on a single course (e.g., Ni 2013, Elliott et al. 2021) or a specific programme (Ni et al. 2021), to which we supplement a latest study across a comprehensive range of public administration programmes offered in a school located in Asia. Second, thanks to its research design (which will be mentioned in the next paragraph and articulated in the Methods section), our paper brings an additional layer of nuance on whether and to what extent perceptions of online public administration education could differ by the way in which they are planned. Third, by conducting the survey in an Asian context, the paper helps fill a critical gap in the literature related to policy administration education in Asia (Ginn and Hammond, 2012, Mukherjee and Maurya 2022) while making a timely addition to the non-Western public administration more generally (McDonald III et al. 2022). Lastly, on a practical dimension, our findings can help improve existing online education practices in public administration institutions as a response to the ongoing pandemic, and offer continuing guidance on the direction of online education in the post-pandemic era.

Our method of enquiry comprised of two temporally separated surveys of 147 students altogether at a public policy school in Singapore. The first survey was administered in July-August 2020 (academic year 2019-2020 in the Singapore higher education context), a short while after online education was ushered in as an emergency response in the middle of the semester. The second survey was administered in October-November 2020 (academic year 2020-2021) when students had experienced online education for a few months since it was

Manuscript for *Teaching Public Administration*

implemented deliberately at the beginning of the new semester. As argued by some scholars, the primary objective of emergency online teaching is to provide temporary access to instruction and material in a quick and reliable manner, without necessarily trying to re-create a robust educational ecosystem. As such, this teaching mode precludes a careful design process (Hodges et al., 2020). In contrast, planned online education allows for the integration of careful and deliberate instructional design, using a systematic development model that can contribute to effective online teaching (Branch and Kopcha, 2014). Therefore, in principle, planned implementation of online education should be able to tide over the issues that an emergency response encounters. Through two distinctive waves described above, our research design thus enabled us to assess whether and to what extent this had been the case in an Asian context.

For both survey waves, we found that the students in the sudden online education model reported a lower willingness to participate in class activities; lower levels of interaction with classmates; less effective communication with teachers; and lesser ease in sharing personal experiences or talking about potentially controversial topics. However, the planned implementation of online education, by providing teachers with the time and resources to invest in up-front designing for an online mode of instruction (Gibson and Dunning, 2012), did appear to be more effective in limiting the decline in student participation to some extent.

This paper is organised as follows: in the next section, we review the relevant literature guiding our research. This is followed by the Methods and Findings sections. In the subsequent section, we discuss implications of our findings, offer policy suggestions, and note the limitations of our research and directions for future research. We end with a Concluding Section.

Public Administration Education: An Overview

Public administration programmes today are known for making concerted efforts to combine theory and practice in a reflective and practical way (van der Meer and Marks, 2018) by consistently drawing links with the 'real world' (Bushouse et al., 2011). This is reflected in the curriculum of public administration programmes which emphasise the theory-practice nexus (Meltzer, 2013), in the teaching pedagogies adopted (Neely et al., 2018) and in the skillsets that are sought to be cultivated amongst the students (Schafer, 2016; van der Meer and Marks, 2018). Taken together, this results in a teaching environment in which interaction plays a key role (White, 2000) in promoting self-learning and enriching the classroom by drawing on the experiences of the students in conjunction with those of the instructor (Savard et al., 2020). In Figure 1, we present the three pillars that feed into this approach.
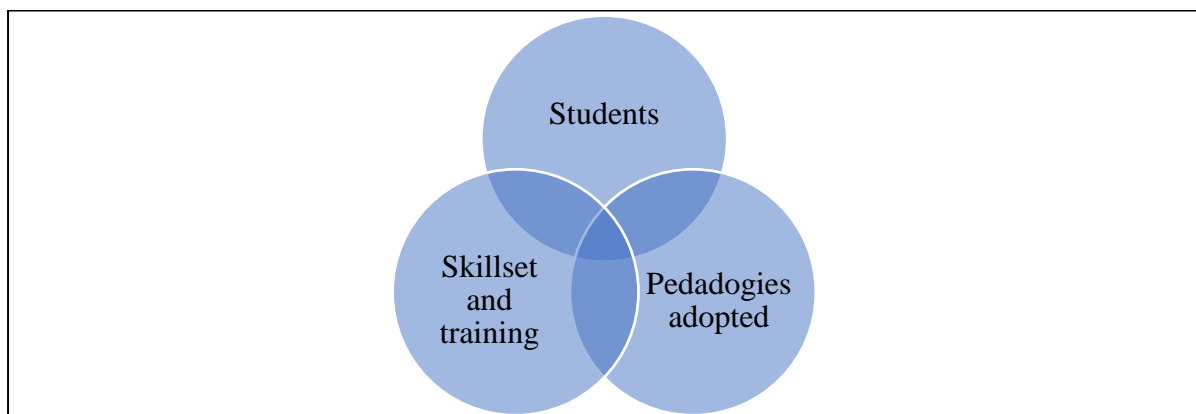

Figure 1: The three pillars that feed into the character of and manner in which public administration education is commonly imparted

The student body of graduate level programmes in public administration schools has become increasingly varied and heterogeneous in recent times. Most graduate schools have also been making efforts to build a community of diverse learners in the classroom. An offshoot of this has been the globalization of curricula and a greater focus on comparative public policy and non-western public administration (Ongaro, 2021). This simultaneously reflects the desire to expose students to international experiences (Hou et al., 2011), inculcate an appreciation of

local knowledge in policy work (Veselý, 2020) and, importantly, help prepare the next generation of policy workers (Manoharan et al., 2018) who are equipped with a heterogenous and varied skillset that extends beyond analytical techniques and encompasses activities involving communication and coordination (Hoppe, 1999).

The last of these intentions is especially pertinent as many students come to graduate level programmes in public administration schools with prior work experience, particularly in case of mid-career programmes, who in turn are expected to return or turn to a career in policy work (van der Meer and Marks, 2013). Thus, the skillset and training that public administration schools seek to impart to students are aimed at equipping them to function more effectively in their professional practice (Schafer, 2016; van der Meer and Marks, 2018). In addition, a key role—and what some even consider a responsibility of public administration education—is to instil and promote public service value (Rubaii et al., 2019) so as to deal with wicked problems and prevent future crises and atrocities. This often entails discussions about potentially sensitive and controversial topics (ibid).

Programmes generally make substantial efforts to prepare students to address the challenges they are likely to meet while undertaking policy work, making a special effort to link theory and research with real-life issues and situations (Kearns, 2014). Since working in teams or work units is often a key component of policy work (Infeld and Adams, 2013), public administration programmes usually emphasize group exercises and team projects as a way of cultivating collegial and respectful work styles and behaviour while giving students the opportunity to benefit from each other's experiences and knowledge (Crosby and Bryson, 2007; Schafer, 2016). Other salient features of public administration programmes, such as capstone projects, internships (Gerlach and Reinagel, 2016) and client-based projects (Meltzer, 2013), help provide students with networking and professional development opportunities (Neely et al., 2018). Social activities also play an important role in

these programmes, as they can help create a sense of community among students (Cohen, 2013), which, in turn, helps nurture a strong alumni base.

In managing this nexus between students and desired policy work skillsets and training; teaching pedagogies play a key role. Although each instructor may be motivated by their own distinct teaching philosophy and consequently drawing upon multiple and unique interactive methods, certain pedagogies and techniques tend to be more salient in a public administration classroom. Given that policy concepts can often be complex, abstract and contested (Straussman, 2018), active learning pedagogies—wherein students are active in the process of understanding and building knowledge (Leston-Bandeira, 2012)—are considered to be an important component of public administration classrooms. In a similar vein, scholars advocate the use of engaged teaching methods i.e. innovative teaching techniques that link theory and practice (Bushouse et al., 2011), including the co-production and curriculum co-design that sees students as partners (Elliott et al. 2021).

Some commonly used techniques in public administration classrooms lend themselves well to both these aspects. For instance, the use of teaching-cases is fairly well-established. According to the results of a survey of faculties in Network of Schools of Public Policy, Affairs, and Administration (NASPAA)-affiliated schools, this is the most commonly employed practice (Neely et al., 2018). Case studies are appreciated for their ability to stimulate student interest and engagement with complex issues (Foster et al., 2010) and for helping link theory and practice better (Fenwick, 2018). The larger approach of problem-based learning, involves 'the application of tools to problems of interest so that students are motivated to learn', also plays a significant role in public administration education (Engbers, 2019: 315). It is sought to be promoted in the classroom by creating a learning environment where students can apply theoretical knowledge and professional skills (Cohen et al., 1995). Outside the classroom, internships and client-based projects as well as service-learning pedagogies offer opportunities

for problem-based learning and are commonly incorporated in public administration education (Neely et al., 2018; Wheeland and Palus, 2010; Witesman, 2012). As noted by a study, problem-based learning when implemented in course design for a public administration programme allowed students to deepen research knowledge of a topic, learn basic analytical techniques and hone their professional communication skills (Sandfort and Gerdes, 2017).

The above description of pedagogies and techniques utilised in the public administration classroom is by no means exhaustive. Instead, it serves to illustrate the point that commonly used pedagogies in public administration education emphasise learner engagement and interaction. However, these have predominantly been practised in a face-to-face setting and the bulk of scholarship related to them presupposes their use in a traditional classroom (see for instance Foster et al., 2010; Rubaii, 2016; Schröter and Röber, 2021) whereas their application in an online environment may not be as straightforward. For instance, three frequently used pedagogical approaches—case study teaching, problem-based learning and client-based internships/projects—function with varying levels of ease in an online format.

Case-study discussions, in a traditional face-to-face public administration classroom are typically characterised by a significant back-and-forth between the instructor and students, and amongst the students with one another. This dynamism is hard to re-create in an online class, where students cannot spontaneously dive into the discussion. There is an inevitable delay as students have to tackle with unmuting themselves, audio/ video lags and/or connectivity challenges. Moreover, in an online class the absence of physical cues from body language that play an important role in how students engage with each other, and how the instructor guides the discussion; also limit the extent to which the full potential of a case-study can be harnessed.

In contrast, the approach of problem-based learning lends itself well to an online-setting. An online class offers the chance to leverage on a multitude of platforms to allow students to address the problem presented by the instructor via different means. For example, through the use of virtual learning communities, such as Wikipedia (Brailas et al., 2015; Infeld and Adams, 2013), or through computer simulation-based approaches (Gosen and Washbush, 2004; Humpherys et al., 2022). The adaptability of client-based internships or projects to an online setting, however, presents a mixed picture. It has a lot to do with other factors, such as the nature of the organisation, activities the student is expected to be involved in and organisational adaptability in moving the internship/project online (Pike, 2017).

To summarise, the three pillars of public administration education—pedagogical tools, skillsets and students—emphasise student participation and engagement. While pedagogical approaches make this possible, it is done with the intent of enhancing critical skillsets that a policy worker requires such as effective and respectful communication, collaboration and teamwork. Involving students in this way, helps incorporate diverse perspectives within the classroom and cultivates social capital between students and the institution.

Bringing together these attributes of public administration education with online education, an increasingly popular mode of teaching and learning both during COVID-19 and—very likely— beyond the pandemic, our research seeks to examine: *i) Does the shift to online classes impact students' participation, interaction and communication? ii) Whether and how experiences of public administration students vary when online education is introduced as an emergency response versus implemented in a planned manner?* The next section briefly explains our method of enquiry.

Manuscript for *Teaching Public Administration*

Methods

To answer our research questions, we undertook two online surveys of full-time students enrolled in graduate-level programmes of a professional public policy school in Singapore. This school is well-suited to help address our largely exploratory enquiries, both for its comprehensive structure of public administration education programmes and its prompt switch to online mode of teaching and learning since the beginning of the COVID-19 pandemic. As mentioned earlier and will be elaborated in the next paragraph, the second feature is crucial in enabling us to conduct nuanced investigations of student perceptions under different planning styles of online public administration education.

Surveyed students were enrolled in various programmes including the Master's in Public Policy, Master's in Public Administration, Master's in International Affairs and PhD in Public Policy. The two surveys were identical, their only difference being the time when they were launched and the group of students to whom the questionnaires were distributed to. The survey collected demographic information; information about the institutional support, the individual and environmental pre-requisites for online education available to students (for example a stable internet connection, access to a physical space); and asked students about their online learning experiences and perceptions through a set of closed-ended questions. These questions were followed and supplemented by a set of open-ended questions which allowed students to share further thoughts and perceptions.

The first survey was circulated to students between July-August 2020. By then, students had experienced online education as an 'emergency response' imposed in mid-March 2020. Most of the students that participated in the survey were part of the graduating class (N=71). The second survey was administered between October-November 2020, at which point online education had been implemented since the beginning of the new semester in August 2020. Unlike the previous period, during which the shift to online classes happened 'suddenly' (that

is, without prior notice), the decision to move to an online format in the new semester was made over the summer and communicated to both students and faculty well in advance. Thus, the second wave of the survey targeted students that were experiencing 'planned' online education (N=76). The survey at both time points had a response rate of about 23% of the student population, which is in line with the response rate reported in studies employing web-based surveys (Blumenberg and Barros, 2018; Hardigan et al., 2012).

In order to gauge students' assessment of their level of engagement during online classes, we focussed our attention on four specific items from the close-ended questions of the survey. All questions were measured on a five-point Likert scale. Students had to choose from a set of responses ranging from 'much more' (1) to 'much less' (5) for the following questions:

Q1. "My willingness and level of participation and engagement in online class activities (discussion, debate, small-group activities etc.) is _____ when compared with my engagement in traditional classroom instruction."

Q2. "I am able to have _____ interaction with my fellow classmates when compared with traditional classroom situations."

Q3. "I am able to have effective communication with my teachers and seek timely help and feedback _____ when compared with traditional classroom situations."

Q4. "I am able to share my views on potentially controversial topics or my personal experiences _____when compared with traditional classroom situations."

To capture students' experiences in a more nuanced manner, we further analysed students' responses to a question related to motivation (similarly measured on a 5-point scale ranging from 'much higher' to 'much less'):

Q5."My motivation to acquire knowledge and skills through online learning is _____

when compared with my motivation in traditional classroom instruction."

Lastly, we complemented the above analyses with a close examination of the answers that the students provided in the open-ended sections of the survey. We also examined students' access to environmental and individual pre-requisites for online education, to cross-check whether they influenced the results in any way.

Findings

In Table 1, we present the sample characteristics of the two surveys. As can be seen, in terms of demographic characteristics, the two samples were fairly balanced, with the majority of the students having had no prior online education experience.

Table 1: Sample characteristics of the two survey waves

Sample characteristics	Wave 1: Emergency response	Wave 2: Planned implementation
Female	34 (48%)	52 (68%)
Male	37 (52%)	25 (32%)
Age: 20-25 years	27 (38%)	20 (26%)
Age: 26-30 years	25 (35%)	26 (34%)
Age: >30 years	19 (27%)	31 (40%)
Domestic student	19 (27%)	14 (18%)
International student	52 (73%)	63 (82%)
Work Exp: <1 year	21 (30%)	12 (16%)
Work Exp: 1-3 years	15 (21%)	15 (19%)
Work Exp: 3-5 years	12 (17%)	12 (16%)
Work Exp: 5-10 years	18 (25%)	23 (30%)
Work Exp: >=10 years	5 (7%)	15 (19%)
Prior online education experience	27 (38%)	27 (35%)
No prior online education experience	44 (62%)	50 (65%)
N	71	76

Note: Figure in parenthesis represent the percentage share of the sample.

Although the majority of students (in both waves) did not report difficulties in accessing the environmental and individual pre-requisites associated with online education, we did a sub-sample analysis by excluding students that reported difficulties from the sample. However, this did not alter our findings, thereby, confirming that the findings that we discuss below were not influenced by these factors.

With respect to the questions that directly asked students about their level of engagement in an online class as compared to a traditional classroom setting, students reported: lower willingness to participate and engage in class activities (such as discussions, debates, group-activities); lower levels of interaction with classmates; less effective communication with teachers to seek help and feedback; less ease in sharing personal experiences or talking about potentially controversial topics. These results hold for both emergency online education and the later wave of planned implementation (Figure 2), and we did not find statistically significant differences between domestic and international students.
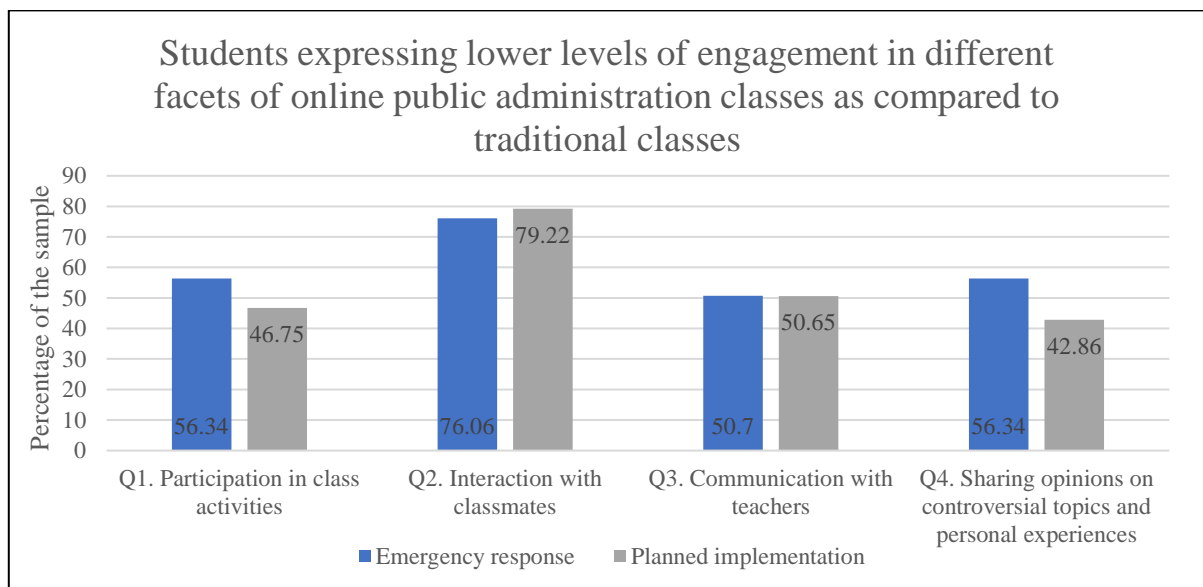

Figure 2: The percentage of students expressing lower levels of engagement in different facets of online classes as compared to a traditional classroom setting.
Note: The figure shows the percentage of students that answered "slightly less" or "much less" in response to Q1-Q4 of the surveys.

However, there are some additional nuances to our results that are worth discussing. First, nearly half of the students that experienced online classes, whether in emergency mode or planned format, felt that their communication with teachers was less effective in an online classroom as compared to a traditional setting [Q3]. The remaining students were mostly neutral (33% of the first wave and 38% of the second wave) and only a small minority felt communication under online education was more effective (15% of the first wave and 10% of

Manuscript for *Teaching Public Administration*

the second wave). This result resonates with our experiences as instructors, where we observed that in a traditional classroom setting, students often approach instructors during breaks or at the end/beginning of the class. The format of a synchronous online class takes away from students these less-structured and less-formal avenues for interaction with the instructor. The fact that students consistently perceived communication with instructors to be less effective during both rounds of the survey indicates that even during the planned implementation of online education, teachers were not able to devise mechanisms that could substitute for the less-formal avenues of communication that students are traditionally used to.

When it came to willingness and participation in class activities [Q1], although students reported lower levels in an online class as compared to a traditional class, but with planned implementation of online education the share of students expressing this to be the case went down (56% in the first wave of the survey versus 47% in the second wave of the survey). This may have been because of the course design during the planned phase that allowed instructors to tailor activities for class participation that were more suitable for an online format. Moreover, as we found in our interactions with colleagues at the surveyed school – by the time of the second wave of the survey, instructors had become better acquainted with online teaching platforms and had time to explore alternate online teaching tools (for instance collaborative online white-boards, online quizzes and polls). Meanwhile, institutional support on these aspects had also strengthened, as shown by the greater number of trainings being organised and more technical support being available.

Similarly, we found that the share of students who expressed apprehensions with sharing their views on potentially sensitive topics or personal experiences [Q4] also went down with planned online education (56% of the sample during the emergency response period versus 43% of the sample during the phase of planned implementation). Some of this may have been an offshoot of careful course design tailored to an online format which helped lower

Manuscript for *Teaching Public Administration*

barriers towards participation in general. However, from the open-ended section of the survey, we have reason to believe that online classes (whether in emergency or planned mode) may have posed some obstacles towards students freely sharing their views. Students' responses in this section indicated that some of them felt uncertain about whether an online class constituted a 'safe space'. They mentioned that the ability to record lectures and the inability to strictly restrict online class-access to only students of the class (for instance, "Zoom bombing" i.e. when unrelated individuals joined Zoom meetings and disrupted proceedings, or if a student turned off their video camera then anyone in their vicinity could potentially be privy to class discussions) made them harbour reservations about freely voicing their opinions on controversial topics and partake in class debates. Moreover, when discussing sensitive topics, body language can provide cues about how others are responding to the discussion. But an online class environment may not be able to provide this important piece of information, thereby, preventing students and instructors from being able to appropriately nuance their thoughts in light of the class environment.

On the question related to interactions with fellow classmates [Q2], over three-quarters of the students in both rounds of the survey reported lower levels of such interactions in an online classroom as compared to a traditional classroom (76% of the sample under the emergency response phase and 79% of the sample under the planned implementation phase). The high percentage suggests that even the tailored format of planned online education could not boost student interactions. Lower interaction, in general, was cited as a significant challenge experienced by students with online education. This can be seen clearly in Figure 3, where we present a word cloud of the 100 most frequently used words by students in their answers to an open-ended question which asked them to list the top three challenges they experienced with online education.
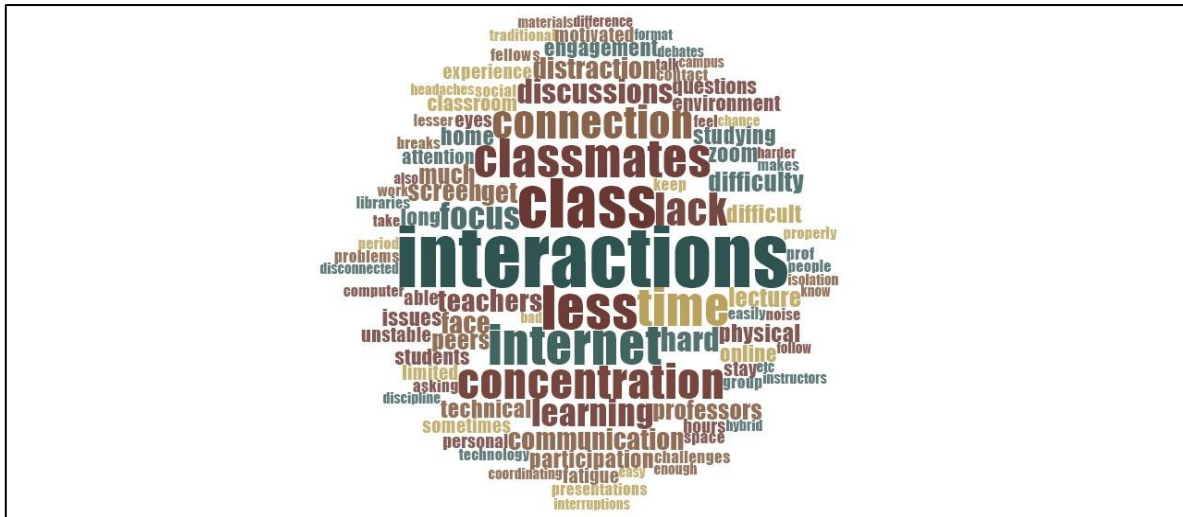
Figure 3: Word cloud of the 100 most frequently used words by students in both surveys in response to the question asking them to list the top three challenges experienced during online education

When we examined students' individual answers to see what specific aspects related to interaction they mentioned, five major themes emerged. First, at the very basic level, students felt online classes gave them fewer opportunities to interact with classmates, especially reducing informal communication and communication with those whom they would not have ordinarily engaged with. Second, according to students, lower levels of interaction detrimentally impacted their ability to make friends and network with their peers. Third, students felt the lack of immediate feedback and emotional responses (since most students remained muted) made the online learning environment less rewarding. They felt it was also harder to recreate in an online class the energetic dynamics of group-discussions and debates which typically characterised in-person classes, thus, making them feel less enthused. Fourth, students mentioned the lack of peer-learning because of reduced interactions during the online class. Fifth, students consistently mentioned the difficulties in engaging remotely in group-work and group-projects inside and outside of class.

Students' responses suggested that lower participation, interaction, communication, self-expression during class, with peers and teachers also influenced their levels of motivation.

Manuscript for *Teaching Public Administration*

We found some evidence for this when we examined the degree of correlation in students' responses in the surveys. In Table 2, we report the Spearman rank-order correlation coefficient for Q1-Q5 for the two surveys together. The results show a positive and statistically significant correlation between the four facets of online education discussed above and motivation to acquire knowledge and skills through online learning, which remained true even when the surveys were examined individually. Our survey design and limited sample size, however, prevented us from examining whether this relationship was causal.

Table 2: Spearman's rank-order correlation coefficient for students' responses in the two surveys

Variables	(1)	(2)	(3)	(4)	(5)
(1) Participation in class activities [Q1]	1.00				
(2) Interaction with classmates [Q2]	0.49*	1.00			
(3) Communication with teachers [Q3]	0.49*	0.58*	1.00		
(4) Sharing opinions on controversial topics and personal experiences [Q4]	0.48*	0.56*	0.527*	1.00	
(5) Motivation in an online class [Q5]	0.65*	0.51*	0.44*	0.47*	1.00

Note: *$p < 0.01$

Discussion

Our findings from the previous section show that when compared to traditional classroom teaching, students unequivocally reported lower levels of interaction with classmates and teachers, lower levels of participation in class activities, reduced levels of sharing of personal experiences and views on controversial topics in an online classroom. However, with the planned implementation of online education, the decline in the level of participation (as compared to traditional teaching) was lower. This implies that a well-designed curriculum that tailored to an online mode of instruction has the potential to lower the participation barrier associated with an online class.

Having said that, we found that the planned implementation of online education could not counter declines in the remaining facets – interaction with classmates, communication with teachers; and sharing of personal experiences and views on controversial topics. Research on

Manuscript for *Teaching Public Administration*

interactions, with respect to distance learning, shows that their meaningful integration can increase learning outcomes (Bernard et al., 2009).

In the more specific context of public administration education, interaction and communication between students and teachers, with a free exchange of ideas, is integral to cultivating the skillsets that public administration programmes seek to impart and the means by which they do so. In other words, they are tied to the three fundamental pillars of public administration education presented earlier: students; skillset and training; and pedagogies adopted. Thus, when students experience declines in engagement in the aforementioned facets, it strikes at the core of the dominant approach of public administration education—of self-directed learning integrating theory with practice—and accordingly, commonly employed pedagogies and techniques adopted in the public administration classroom (e.g., case-studies and problem-based learning) would not fare as well. As the variety of perspectives that are brought to the class floor is reduced, peer-learning is restricted; difficulties in engaging in debates and group activities, constrains the extent to which students can develop negotiation, communication and team-work skills; a reduction in informal communication impedes networking opportunities for students and impairs the development of a strong sense of community among them; thus, ushering in a sort of reinforcing and multiplicative feedback loop.

Moreover, our results suggest declines in the discussed facets may adversely influence students' motivation to acquire knowledge and skills during an online class. This is a matter of concern since motivation to learn is considered a crucial factor to success in online teaching and learning (Hartnett, 2016; Lim and Kim, 2003), which also influences the learning behaviour and attitude of students (Hung et al., 2010). Lower levels of interaction, communication and motivation, in turn, would have worrying implications on student

engagement in online public administration education, which requires more than passive participation (Elliott et al., 2021)0.

Although these challenges to the effectiveness of online public administration education have been revealed in the existing literature (e.g. Austin 2009), the global experience of the last two years would lead us to caution that treating the switch to online education as a temporary phenomenon could hardly be the solution. Indeed, the unrelenting uncertainty around the COVID-19 virus, as well as the likelihood of restricted international movement in the next few years, suggests that online education is unlikely to revert back to its pre-pandemic levels. Furthermore, many higher education institutions tap into online education to realize their purposes such as reducing costs and catering to a broader audience (for example, adult learners) who would not have been able to participate in graduate education in earlier times (Austin 2009). Accordingly, the solution is more likely to lie in the further tailoring of the pedagogy, and skillset and training pillar of public administration education to an online format.

With respect to pedagogy, educational technology i.e. 'the deliberate use of technological tools to serve formal or informal educational purposes' (Brailas et al., 2015: 60) is something that can be used more strategically in the public administration classroom. Research shows that student engagement in online classes is more intense when they frequently interact with peers using technologies (Bryan et al., 2018). Gamification (Ofosu-Ampong, 2020) can be used to promote collaboration and communication between students, for instance, an Escape Room based on Microsoft OneNote (see CABS, n.d.). Within online discussion forums, separate threads can be used to create opportunities for students to receive feedback from others with similar interests (Alamri et al., 2020). In order to encourage students to continue to share their views on potentially contentious topics, instructors can utilise fictitious vignettes inspired by real events (Straussman, 2018). During such discussions, 'recording' (if

it is taking place) may also be paused to allow students to share their views without reservations.

More generally, employing learning analytics on data such as the access logs of online resources and the use of online tools can help instructors understand students better (Bainbridge et al., 2015; Poon, 2019). Instructors can also assess the level of 'Zoom fatigue' (fatigue associated with video-conferencing calls) among their students using a scale recently developed by researchers (see (Fauville et al., 2021) and structure their classes accordingly. Artificial intelligence (AI) chatbots can also be employed to assist students in their learning journeys.

Outside the classroom, smaller peer-groups can be set up to encourage students to meet and share items from the syllabus. Students can be given observational tasks that require them to share their experiences through a non-traditional medium, for instance through a picture or via social media (Eikenberry, 2012), say through a tweet. In this context, tutors (or teaching assistants or graduate student instructors) constitute a valuable and underutilised resource (Brown, 2020). Since they are largely drawn from the student population, tutors may have a better pulse on students' experiences and perception of different pedagogical strategies; and this feedback can be incorporated into curriculum design. It has been found that the thoughtful application of a limited number of tools is considered to be as or more effective than using a wide array of technology in an online setting (Bryan et al., 2018). Finally, tutors can also help create spaces for informal communication for the students, whether online or offline.

With regard to skillsets and training, public administration education needs to contend with the unassailable reality that policy work now and in the future is likely to entail a greater use of technology—such as the use of big data (Mergel, 2016)—and make use of remote work

practices. Thus, public administration programmes need to start deliberating on ways to prepare students to succeed in such workplaces and to confront the associated challenges.

In closing, we note some of the limitations of our study and directions for future research. Our study was based on students' self-reported experiences which may embody individual-level differences in subjective evaluations. As our survey reflected an amalgamation of students' experiences across different courses of their programme (and not for a specific course), we did not ask about assessment practices as these would have varied by course. We acknowledge this as a limitation of our research, and encourage future research to investigate specifically on this aspect to acquire an in-depth understanding of the role, assessment plays in shaping students' experiences in an online education setting. Moreover, the student population being compared between the two survey waves was not the same. The difficulty of securing the same student population was mainly practical: due to the short duration of graduate programmes (usually a maximum of two years) and as the sample from the first wave was largely the graduating class (as mentioned earlier in the Methods section), a majority of those who participated in the first survey had graduated by the time of the second survey. Having said that, the unique sample for each wave[1] did enable us to explore how two distinctive groups of graduate students had similar or different perceptions on online education that was being executed in two distinctive modes.

While our focus on students' experiences and perceptions is both theoretically and practically justified, as elaborated in the second section of the paper, it is important for future research to complement this account with an exploration of how public administration faculty have been impacted by the switch to online education, thereby generating a more

---

[1] Five students that participated in the first round of the survey could have potentially participated in the second wave of the survey. Although we cannot ascertain whether these students repeated across the two rounds of the survey, their small number implies that the majority of the sample for each wave was unique.

Manuscript for *Teaching Public Administration*

comprehensive picture that encompasses both sides of teaching and learning. Further, research on a blended mode of online education may be even more relevant. In addition, our research focused on a public policy school in Singapore. Although the schools' students included a mix of domestic and international students, the majority of international students were from other countries in the East and South Asia region. It may be insightful to compare in future research whether and to what extent the experiences of Asian public administration students are similar with or distinctive from their counterparts in other geographies, as a starting point of investigating how learning styles, culture or political contexts (Farrell et al. 2021) might affect students' overall experience with online public administration education. Having said that, the lessons learned from the Asian context in our research may already be pertinent and useful to public administration schools in other contexts, insofar as some common challenges to making online education work are concerned.

Conclusion

We reported our findings from two surveys of graduate-level students at a policy school in Singapore when comparatively, they experienced online learning as an emergency response and when it was implemented in a planned manner. In both situations students reported – lower levels of interaction with classmates, less effective communication with teachers, lower levels of participation in class activities, reduced levels of sharing of personal experiences and views on controversial topics; in online classes as compared to a traditional setting. Although the planned implementation of online education was able to overcome the participation barrier to some extent, on the remaining facets it could not counter the decline. This is a matter of concern because interaction, communication and the free exchange of ideas, is integral to the dominant pedagogies that public administration education adopts over the past several decades, and the skillset and training it seeks to impart. Moreover, students' motivation, in turn, may be detrimentally impacted because of lower levels of engagement.

Manuscript for *Teaching Public Administration*

To overcome these challenges that strike at the fundamental pillars of public administration education, we suggested a number of strategies that instructors may adopt. But their effectiveness will depend crucially on the instructors' willingness to innovate, experiment and adapt what they teach and how they teach it, in response to the changing situation (Schultz, 2013). We highlighted the fact that public administration education needs to continuously pivot towards offering relevant skillset and training that can cater to the changes in the manner in which policy work will be carried out in the future (Mergel, 2016; Schultz, 2016; van der Meer and Marks, 2018) i.e. with a greater use of technology and remote work practices.

Online education, while posing challenges, also offers the opportunity to make public administration education more inclusive by catering to students that can only be on campus for a part of the day or part of the year due to familial or other responsibilities (Manoharan et al., 2018). Moreover, combining traditional classes with online education can provide additional opportunities to intensify active learning (van der Meer and Marks, 2018). However, harnessing the advantages of online education will require the development of an effective model that can offer academically rigorous contents while overcoming the barriers online education poses to a public administration classroom.

References

Akter S, Zakia MA, Mofijur M, et al. (2021) SARS-CoV-2 variants and environmental effects of lockdowns, masks and vaccination: a review. *Environmental Chemistry Letters*. DOI: 10.1007/s10311-021-01323-7.

Alamri H, Lowell V, Watson W, et al. (2020) Using personalized learning as an instructional approach to motivate learners in online higher education: Learner self-determination and intrinsic motivation. *Journal of Research on Technology in Education* 52(3): 322–352. DOI: 10.1080/15391523.2020.1728449.

Austin, EK (2009) Limits to technology-based distance education in MPA curricula. *Journal of Public Affairs Education*, 15(2), 161-176.

Bainbridge J, Melitski J, Zahradnik A, et al. (2015) Using Learning Analytics to Predict At-Risk Students in Online Graduate Public Affairs and Administration Education.

Manuscript for *Teaching Public Administration*

Journal of Public Affairs Education 21(2): 247–262. DOI: 10.1080/15236803.2015.12001831.

Bernard RM, Abrami PC, Borokhovski E, et al. (2009) A Meta-Analysis of Three Types of Interaction Treatments in Distance Education. *Review of Educational Research* 79(3): 1243–1289. DOI: 10.3102/0034654309333844.

Blumenberg C and Barros AJD (2018) Response rate differences between web and alternative data collection methods for public health research: a systematic review of the literature. *International Journal of Public Health* 63(6): 765–773. DOI: 10.1007/s00038-018-1108-4.

Brailas A, Koskinas K, Dafermos M, et al. (2015) Wikipedia in Education: Acculturation and learning in virtual communities. *Learning, Culture and Social Interaction* 7: 59–70. DOI: 10.1016/j.lcsi.2015.07.002.

Branch RM and Kopcha TJ (2014) Instructional design models. In: *Handbook of Research on Educational Communications and Technology*. Springer, pp. 77–87.

Brown PR (2020) What tutors bring to course design: Introducing political and policy theories to disengaged students. *Teaching Public Administration* 38(1): 12–23. DOI: 10.1177/0144739419858682.

Bryan TK, Lutte R, Lee J, et al. (2018) When do online education technologies enhance student engagement? A case of distance education at University of Nebraska at Omaha. *Journal of Public Affairs Education* 24(2): 255–273. DOI: 10.1080/15236803.2018.1429817.

Bushouse BK, Jacobson WS, Lambright KT, et al. (2011) Crossing the divide: Building bridges between public administration practitioners and scholars. *Journal of Public Administration Research and Theory* 21(suppl_1). Oxford University Press: i99–i112.

CABS (n.d.) Unlocking the padlock – using an Escape Room to teach Business students. Available at: https://charteredabs.org/unlocking-the-padlock-using-an-escape-room-to-teach-business-students/ (accessed 31 December 2021).

Cohen AP (2013) *Symbolic Construction of Community*. 0 ed. Routledge. DOI: 10.4324/9780203131688.

Cohen S, Eimicke W and Ukeles J (1995) Teaching the craft of policy and management analysis: The workshop sequence at Columbia University's graduate program in public policy and administration. *Journal of Policy Analysis and Management* 14(4). JSTOR: 606–626.

Crosby BC and Bryson JM (2007) Teaching Leadership and Policy Change in a Public Affairs School. *Journal of Public Affairs Education* 13(2): 169–186. DOI: 10.1080/15236803.2007.12001475.

Eikenberry AM (2012) Social networking, learning, and civic engagement: New relationships between professors and students, public administrators and citizens. *Journal of Public Affairs Education* 18(3). Taylor & Francis: 449–466.

Elliott IC, Robson I and Dudau A (2021) Building student engagement through co-production and curriculum co-design in public administration programmes. *Teaching Public Administration* 39(3): 318–336. DOI: 10.1177/0144739420968862.

Engbers T (2019) Between lecture and flipped: The use of "labs" in the public administration classroom. *Teaching Public Administration* 37(3): 312–326. DOI: 10.1177/0144739419858692.

Farrell, C, Hatcher, W, and Diamond, J (2021) Reflecting on over 100 years of public administration education. *Public Administration*. Online first.

Fauville G, Luo M, Queiroz ACM, et al. (2021) Zoom Exhaustion & Fatigue Scale. *SSRN Electronic Journal*. DOI: 10.2139/ssrn.3786329.

Fenwick J (2018) Teaching public administration: Key themes 1996–2016. *Teaching Public Administration* 36(1). SAGE Publications Sage UK: London, England: 6–13.

Foster RH, McBeth MK and Clemons RS (2010) Public policy pedagogy: Mixing methodologies using cases. *Journal of Public Affairs Education* 16(4). Taylor & Francis: 517–540.

Gerlach JD and Reinagel TP (2016) Experiential Learning in MPA Programs: A Case for Complementarity between Internship and Service Learning Requirements. *PS: Political Science & Politics* 49(01): 132–138. DOI: 10.1017/S1049096515001158.

Gibson PA and Dunning PT (2012) Creating quality online course design through a peer-reviewed assessment. *Journal of Public Affairs Education* 18(1). Taylor & Francis: 209–228.

Ginn MH and Hammond A (2012) Online Education in Public Affairs: Current State and Emerging Issues. *Journal of Public Affairs Education* 18(2): 247–270. DOI: 10.1080/15236803.2012.12001683.

Gosen J and Washbush J (2004) A Review of Scholarship on Assessing Experiential Learning Effectiveness. *Simulation & Gaming* 35(2): 270–293. DOI: 10.1177/1046878104263544.

Hardigan PC, Succar CT and Fleisher JM (2012) An Analysis of Response Rate and Economic Costs Between Mail and Web-Based Surveys Among Practicing Dentists: A Randomized Trial. *Journal of Community Health* 37(2): 383–394. DOI: 10.1007/s10900-011-9455-6.

Harvard University (2021) COVID Update – January Remote Learning and Work. In: *Covid-19 Information*. Available at: https://www.harvard.edu/coronavirus/covid-update-january-remote-learning-work/.

Hodges C, Moore S, Lockee B, et al. (2020) The difference between emergency remote teaching and online learning. *Educause Review* 27.

Hoppe R (1999) Policy analysis, science and politics: from 'speaking truth to power' to 'making sense together'. *Science and public policy* 26(3). Beech Tree Publishing: 201–210.

Manuscript for *Teaching Public Administration*

Hou Y, Ni AY, Poocharoen O, et al. (2011) The case for public administration with a global perspective. *Journal of Public Administration Research and Theory* 21(suppl_1). Oxford University Press: i45–i51.

Humpherys SL, Bakir N and Babb J (2022) Experiential learning to foster tacit knowledge through a role play, business simulation. *Journal of Education for Business* 97(2): 119–125. DOI: 10.1080/08832323.2021.1896461.

Infeld DL and Adams WC (2013) Wikipedia as a Tool for Teaching Policy Analysis and Improving Public Policy Content Online. *Journal of Public Affairs Education* 19(3). National Association of Schools of Public Affairs and Administration (NASPAA): 445–459.

Jreisat JE (2011) Commentary-Comparative Public Administration: A Global Perspective. *Public Administration Review* 71(6). Wiley Online Library: 834–838.

Kearns KP (2014) The Nonprofit Clinic at the University of Pittsburgh: preparing students for transition to professional settings. *Teaching Public Administration* 32(1): 21–38. DOI: 10.1177/0144739413512854.

Kohoutek J, Nekola M and Veselý A (2018) Policy work and its significance for public policy. *Handbook on Policy, Process and Governing*. Edward Elgar Publishing.

Leston-Bandeira C (2012) Enhancing politics teaching through active learning. *Teaching politics and international relations*. Springer: 51–64.

Manoharan AP, Mirbel W and Carrizales TJ (2018) Global comparative public administration: Are graduate programs responding to the call? *Teaching Public Administration* 36(1): 34–49. DOI: 10.1177/0144739417708835.

McDonald III, BD, Hall, JL, O'Flynn, J, et al. (2022) The Future of Public Administration Research: An Editor's Perspective. *Public Administration*. Online first.

Meltzer R (2013) Practice Makes Perfect: Teaching Policy Analysis Through Integrated Client-Based Projects. *Journal of Public Affairs Education* 19(3). National Association of Schools of Public Affairs and Administration (NASPAA): 405–431.

Mergel I (2016) Big data in public affairs education. *Journal of Public Affairs Education* 22(2). Taylor & Francis: 231–248.

Mukherjee I and Maurya D (2022) Public policy education in India: promises and pitfalls of an emerging disciplinary identity, *Journal of Asian Public Policy*, DOI: 10.1080/17516234.2022.2085401.

Neely SR, Coggburn JD and Phelps-Hillen J (2018) Measuring the practice of engagement in public administration. *Teaching Public Administration* 36(3): 276–300. DOI: 10.1177/0144739418775783.

Ni, AY (2013) Comparing the effectiveness of classroom and online learning: Teaching research methods. *Journal of public affairs education*, 19(2), 199-215.

Ni, A. Y, Van Wart, M, Medina, P, et al. (2021) A profile of MPA students' perceptions of online learning: What MPA students value in online education and what they think would improve online learning experiences. *Journal of Public Affairs Education*, 27(1), 50-71.

Ofosu-Ampong K (2020) The Shift to Gamification in Education: A Review on Dominant Issues. *Journal of Educational Technology Systems* 49(1): 113–137. DOI: 10.1177/0047239520917629.

Ongaro E (2021) Non-Western philosophies and public administration. *Asia Pacific Journal of Public Administration* 43(1): 6–10. DOI: 10.1080/23276665.2020.1844027.

Pike PD (2017) Improving music teaching and learning through online service: A case study of a synchronous online teaching internship. *International Journal of Music Education* 35(1): 107–117. DOI: 10.1177/0255761415613534.

Poon LK (2019) Extracting access patterns with hierarchical latent tree analysis: An empirical study on an undergraduate programming course. In: *International Symposium on Integrated Uncertainty in Knowledge Modelling and Decision Making*, 2019, pp. 380–392. Springer.

Rubaii N (2016) Bringing the 21st-century governance paradigm to public affairs education: Reimagining how we teach what we teach. *Journal of Public Affairs Education* 22(4). Taylor & Francis: 467–482.

Rubaii N, Appe S and Lippez-De Castro S (2019) Administering prevention or administering atrocities? Public affairs education in dark times. *Teaching Public Administration* 37(2): 175–198. DOI: 10.1177/0144739418824623.

Sandfort J and Gerdes K (2017) The design, pedagogy and practice of an integrated public affairs leadership course. *Teaching Public Administration* 35(1). SAGE Publications Sage UK: London, England: 50–65.

Savard J, Caron I, Brock KL, et al. (2020) Teaching public administration in the COVID-19 era: Preliminary lessons learned. *Canadian Public Administration* 63(3): 528–533. DOI: 10.1111/capa.12387.

Schafer JG (2016) Making role-playing real. *Teaching Public Administration* 34(2): 150–158. DOI: 10.1177/0144739415611215.

Schröter E and Röber M (2021) Understanding the case method: Teaching public administration case by case. *Teaching Public Administration* OnlineFirst. SAGE Publications Sage UK: London, England. DOI: 10.1177/01447394211051883.

Schultz D (2013) Teaching Public Affairs in Heraclitus' World. *Journal of Public Affairs Education* 19(3). Taylor & Francis: ii–v.

Schultz D (2016) Public Affairs Education for a New Generation. *Journal of Public Affairs Education* 22(1): 7–10. DOI: 10.1080/15236803.2016.12002224.

Straussman JD (2018) Complexity made simple: The value of brief vignettes as a pedagogical tool in public affairs education. *Teaching Public Administration* 36(2). SAGE Publications Sage UK: London, England: 93–109.

van der Meer F and Marks P (2013) Teaching and learning reflection in MPA programs: Towards a strategy. *Teaching Public Administration* 31(1): 42–54. DOI: 10.1177/0144739412470839.

van der Meer F-B and Marks P (2018) An agenda for rethinking mid-career master programs in public administration. *Teaching Public Administration* 36(2): 126–142. DOI: 10.1177/0144739418764530.

Veselý A (2020) Policy formulation redesigned: A new understanding of policy design and its implications for instruction. *Teaching Public Administration* 38(3): 213–232. DOI: 10.1177/0144739420901729.

Wheeland CM and Palus CK (2010) A profile of Villanova University's partnership with local government managers. *Journal of Public Affairs Education* 16(3). Taylor & Francis: 487–509.

White RD (2000) On Pedagogy and Andragogy: Balancing the Learning Needs of Pre-Service and In-Service MPA Students. *Journal of Public Affairs Education* 6(2): 69–78. DOI: 10.1080/15236803.2000.12023460.

Witesman EM (2012) Faculty research-driven vs. community-driven experiential learning in the quantitative public administration curriculum. *Journal of Public Affairs Education* 18(4). Taylor & Francis: 775–796.