

Application of Problem-Based Learning in the Administrative Law Courses:A Case Study of Third-Year Students in the Department of Public Administration

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Abstract

Within higher education, Problem-Based Learning has been embraced as a pedagogical practice that offers great promise to educators, especially in legal studies, but also in public administration-type courses. This study outlines the implementation of PBL in the Administrative Law teaching with the outcomes that PBL promoted active student learning, improved students' problem-solving skills, and built a deeper familiarity with legal knowledge. By applying theories to specific cases, students draw on theory and practice to enhance their understanding of administrative law. Moreover, collaboration in teamwork helped build communication skills, critical thinking skills, logical reasoning skills, and creativity. While existing studies have found PBL to be effective as a pedagogy in legal settings and other content areas, limitations in sample size and duration limit generalizability. Future studies should extend PBL implementations over time and with variety that may offer further evidence of sustained impacts of PBL.

Keywords: *Administrative Law, Critical Thinking, Problem-Based Learning, Public Administration, Teaching Behavior.*

Introduction

Due to its legal character, administrative law has always been perceived as complex and abstract for some time. However, as the professor of administrative law, the author is now honestly positive about this course taught to third-year students in the Department of Public Administration at Chung Hua University because it is a core area of study. Administrative law is not only a significant dimension of the course of study, but also provides students with a useful epistemic understanding of a more complicated relationship between the legal system and government practice. Students entering the course of study are usually interested in law; however, their understanding has not been very practical in comprehending how administrative law operates in practice in real government systems. Thus, the author proposes that the principles of PBL inquiry-based skills and methodologies will orient students in understanding how all types of national legal systems operate in practice.

The study follows students in a required course in the Administrative Law in the Department of Public Administration that had predominantly assessed and tested learning based on problem-based learning (PBL) tasks promoted through the "Problem-Solving Record Sheet,(as Appendix A)"the learning-oriented "Learning Outcome Report Sheet(as Appendix B)", as well as the real-time feedback system, Zuvio IRS² during data reporting during and after the course. The cycle of teaching and data collection for this study spans two academic semesters of teaching the administrative law course, first in Semester One of 2022 with 45 students, and some students came from other Departments, and second the administrative law course in Semester Two of 2022 with 56 students, again with students from other Departments. The study will also draw on and build from the previous academic year's course of study from September 2022 through June 2023. Through the process inquiry and self-study, this study is directed toward enhancing teaching effectiveness in the Administrative Law, while providing students with a purposeful teaching-learning experience, and developing their readiness for continuing professional development in public administration.

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² Zuvio IRS allows educators to create questions prior to class and host a live Q&A with students during the class with the ability to gather student responses and feedback, which increases classroom involvement and higher student engagement.

PBL with the Discipline of Public Administration

The use of Problem-Based Learning in public administration programs is gaining more attention in the literature, with different studies providing examples of its promise and challenges. Lynch and Lynch (2003), for example, focused on the Public Administration ethics educational implications considering using PBL in an online environment. While they reported that PBL should not be seen as a cure all, it is particularly challenging with the lack of face-to-face interaction that can hinder the collaborative and dialogic processes in PBL. Additionally, technological challenges including connectivity and device compatibility can be a hurdle. Additionally, when interacting with complex issues such as ethics in public administration, opportunities for dealing with moral complexities and legal issues may not be included. Lynch and Lynch recommended solutions such as online discussions, telling students what you expect of them upfront, and providing multimedia resources to intervene the learning experience. O'Neill (2005) contributed to the literature about PBL in a the Australian-New Zealand context in the context of PBL for students using a sense of ethics in public administration, complexity without some of the constraints of technology. He noted PBL has challenges in online education, but while it is face to face with hopes with any PBL, to address their engagement. The basis of PBL is authentic cases and scenarios that engage learners that only work through collaboratively to identify solutions and cultivate critical thinking and problem-solving skills. The instructor acts as a facilitator and does not lecture the students historically, but to use inquiry and reflection.

Students are to contribute engagement and share their existing ideas and transfers of theoretical knowledge in case areas gives a better depth of understanding of public ethics in administration. Spoomans and Vanhoonacker (2005) characterized project-based learning (PBL) as a student-centered method connecting academic capability to practice in public affairs education... project management skills was more than merely a competency required in professionalism—it was also an important skill set to develop university education in public administration. In spaces where learning is based on a problem approach, instructors need situational awareness and flexibility in their pedagogy. They will deftly employ strategies such as scaffolding design, developing open questions, or providing contextual guidance to help students gradually build knowledge (Savery, 2006) in a learning process that is inherently unpredictable. In a similar vein, Doug Goodman (2008) provides an analysis of project-based learning in the Master of Public Administration program, suggesting that it developed students' ability to engage in evaluations of decision-making processes. Traditional pedagogy and pedagogical practice infrequently emphasize learning beyond theory or abstract comprehension. Goodman decided that project-based learning could be used to generate some experiential learning and reflective practice for practicing public administrators which increased their capacity for professional competence and affect both student and workplace readiness.

Abel (2009) offered a characterization of public administration education as needing a new signature pedagogy for conscientious educators to prepare for unsteady and complex environments. This signature pedagogy was one intended to engage students with active experiences, assessed decision-making, and help them make decisions cognizant of political, social, and environmental realities. It offered guided ways for students to engage, which oftentimes seemed contrary to being directed, to create experiences for students and practicing professionals needed to give adequate attention to a decision making in a managed but sometimes inexplicable time frame, while simultaneously working together or allowing each other words or thoughts. While a seminar format is commonly used in medical and veterinary education, Spruijt and colleagues (2012) indicated that literature regarding seminars tends to center around PBL, with little examination of what and how the seminar format functions as a teaching method. In an effort to address this research gap, this study provides a significant contribution to the literature by studying learners' experiential accounts of a seminar approach.

Barabashev and Kastrel (2013) analyzed the educational improvements in public administration in Russia, also recognized that public administration education transformed from basic training into recognized and comprehensive competency-based education with new standards. Likewise, and similar to educational institutions such as HSV that had addressed the competency-based curricula with review of new educational activity models, Barabashev and Kastrel recognized that public administration competency-based education develops competency-based education which is new to both school training or public administration. Waldt (2014) also recognized that, agency or educational administrators in public administration have recognized the potential for interdisciplinary teaching to encourage developmental engagement and to inform educational decision to impact improving social challenges. While the new addition of interdisciplinary teaching creates a development space for students, is it pedagogically efficacious? The global movement to integrate PBL into public

administration continues to grow. Grisham, Martiniuk, Negin, and Wright (2015) examined its use in public health in Vietnam, and found that using collaborative problem solving helped students understand public health issues. Newcomer and Allen (2015) introduced a "Public Service Education Learning Outcomes Model," that promoted alignment of school education goals with public value at the personal, organizational, and governance levels. Pojar (2017) demonstrated that PBL improves students' understanding of real-world projects, thinking critically, teamwork, and leadership. Gerrits and Wirtz (2018) claimed that PBL could link between complexity science and theoretical mainstream public administration theory through engagement with the policy problem. Doherty et al. (2018) revealed through questionnaire responses and focus group interviews that PBL instruction impacts tutors not only in the aspects of their clinical reasoning and renewal of knowledge, but also in terms of their clinical practice. Eventually, tutors specified a strong wish to engage in further opportunities to observe their colleagues' teaching and share experiences to have more parallels in their teaching and develop as professionals - emphasizing the need for tutor communities and common practices.

In Ukraine, Melnychenko and Akimova (2019) reported public administration programs are lacking in policy analysis skills, and promoted the idea of PBL to support active learning and practical competence. Careaga-Tagüeña and Sanabria-Pulido (2021) studied public affairs educational programs in Europe, North America, and Colombia by comparing active learning pedagogies and found that similar educational outcomes could be expected with participatory pedagogies across various contexts. Munoz-del-Campo (2022) discussed PBL in MPP and MPA programs in Latin America, and that in engaging students and embedding the knowledge, skills and attitudes in future civil servants to be effective. Shipton (2023) researched the use of PBL in police education, asserting that they developed similar skills of problem-solving, communication, and teamwork in public administration and police education. Coen and Katsaitis (2024) described PBL in public policy and administration programs through simulation games which connected theoretical learning in the practice of application, as well as a similar interest in applying PBL in its own theories. Collectively, these research studies demonstrate the global emphasis on embedding PBL in public administration education and, its value in developing future civil servants, while also enriching the students' participation by engaging collaborate problem-solving, opportunities, and thinking to empower navigation of issues related to the practice.

O'Connor et al. (2024) aimed to explore engineering students' perceptions of problem and project-based learning (PBL) in an online context, with particular attention to factors that may enable or hinder success, implications for communication, and other general perceptions. This study also aims to address a contextual gap in the literature around online PBL in engineering education. The study confirmed PBL in engineering education online has advantages and disadvantages, with varied perceptions from students. While the findings align with the literature, they also presented new contributions to the context of online engineering, helping to address a contextual gap. The researchers created an implementation checklist to support educators in the development of online PBL modules to support optimal success and avoid common pitfalls. Nicolaou et al. (2024) explored the influences of pharmacology learning in an integrated Problem-Based Learning (PBL) curriculum amongst a variety of medical students with a mixed-methods approach. PBL promotes skills development, learning through collaboration, and self-directed learning although it was noted that there are ongoing needs for instructional scaffolding that included lectures, resources and self-assessment to support diversity of learners and improve prescribing skills, towards reducing medication errors.

A holistic overview of Problem-Based Learning (PBL) in health education was provided by Gonzalez-Argote and Castillo-González (2024), of which they described methodology, advantages, and challenges. They underscored the importance of PBL as an active-learning approach in building critical thinking while developing students' practical skills. PBL is worthwhile within medical education and has many benefits in developing critical thinking and practical skills. Feng, Wu, and Bi (2024) implemented BOPPPS-PBL (bridge-in, objective, pre-assessment, participatory learning, post-assessment, and summary) in an undergraduate course. They highlighted the shortcomings of traditional instruction in clinical hematology and proposed the BOPPPS-PBL model as a more engaging option for development of educated learners for highly skilled medical laboratory professionals to meet the current clinical demands. Lee (2025) examined how Problem-Based Learning (PBL) affects students who are engaging in a financial management course for the first time, focusing on how students' characteristics might affect learning outcomes relative to a more traditional lecture-based course. Lee found that tutor performance had a significant impact on learning outcomes for first-time students in PBL. Given these findings, higher education institutions should consider supporting PBL teaching clinics to enhance tutor performance.

In Taiwan, relatively limited implementation of PBL to public administration has occurred, unlike the global trend. For example, Chen, Wu, and Hsu (2012) investigated PBL in public sector training with positive findings. Chen (2020) utilized scenario-based education for student experiences and engagement especially for difficult learning experiences with prompting questions in groups through learning and (and participation). In a teacher education program in Taiwan, Wang (2021) found that problem-based learning (PBL) helps enhance pre-service teachers' engagement in learning, teamwork, and reflection. Additionally, the teaching quality of tenured faculty improved during the implementation of PBL, demonstrating that PBL improves learner growth, as well as restructures the professional responsibilities and practices for educators. Less PBL applied learning in education in Taiwan could be attributed to discipline norms, pedagogical orientations, and curriculum designs. Education in public administration in Taiwan appear to focus on traditional teaching approaches, as absolute intended use of PBL with its learning would prompt heavy interactions with pedagogies and with students (Chang, 2021, 2022), as well as heavy engagement timing for the appropriated guided problem-solving. Thus, this research investigates PBL specifically to the public administration course to engage and interrogate PBL for the ultimate goal of contribute the growing knowledge of pedagogy in public administration.

Research Methodology and Design

Six Discussions of PBL Cases

This research uses a case-study approach in the context of Problem-Based Learning pedagogy. The case method has unique benefits such as depth of inquiry, focused inquiry, and contextually-shaped understanding of social dynamics. In this context, PBL was undertaken over the series of case discussion that was facilitated by invited experts and practitioners. In this study six cases were discussed using the PBL method: see table below.

Table 1 PBL Case Discussion Schedule

Case	Class Discussion Time
Case One, addressing the rights and obligations of public officials	November 15, 2022 13:10-15:00
Case Two, concerning public construction and completion procedures	November 29, 2022 10:25-12:10
Case Three, involving a rare administrative litigation case against the Examination Yuan	March 27, 2023 13:10-15:00
Case Four, examining academic misconduct at the National Defense University	May 1, 2023 13:10-15:00
Case Five, exploring the relationship between schools and public medical practitioners	May 15, 2023 13:10-15:00
Case Six, focused on state-owned land and waste management issues	June 19, 2023 13:10-15:00

Research Participants and Data Sources

The subjects of this study were third-year students who were taking their administrative law course and engaged in all six PBL case studies. Data was collected through pre- and post-course surveys administered at the start of the academic year and at the end. Additionally, student feedback received from experts/practitioners involved evaluative comments regarding their observations of how students engaged and applied PBL strategies. Experts feedback was obtained confidentially, on June 30, 2023, based upon five participants designated A, B, C, D and E.

Table 2 Anonymous Experts list

Date of Feedback	Anonymous Code	Anonymous Experts
June 30, 2023	EA	
June 30, 2023	EB	
June 30, 2023	EC	
June 30, 2023	ED	
June 30, 2023	EE	

Anonymous Students' opinions Feedback

Students' reflections were similarly anonymized and recorded on July 12, 2023, from three anonymous individuals.

Table 3 Anonymous Students list

Date of Anonymous Feedback	Anonymous Students' Code
July 12, 2023	SA
July 12, 2023	SB
July 12, 2023	SC

PBL Pre-Test and Post-Test Survey Period

Surveys were implemented before and after the course to determine the pedagogical effectiveness of PBL. The pre-test was completed on October 17, 2022, with 43 of 45 students responding for a response rate of 96%. The post-test was administered on June 19, 2023, with 52 of 56 students completing the survey, for a response rate of 93%. These data provide a means to examine change in students' perceptions and learning from pre-test to post-test for the academic year. The complete questionnaire is presented in Appendix C.

Table 4 PBL Pre-Test and Post-Test Survey Periods

PBL	Test Time	Number of students taking the course	Number of students who answered the questionnaire	Response rate
Pre-test	October 17, 2022	45	43	96%
Post-test	June 19, 2023	56	52	93%

Statistical Analysis

Administrative Law Course: Pre-test and Post-test

This semester's Administrative Law course included pre- and post-course surveys as part of the course's effectiveness evaluation to gauge overall understanding and engagement. The response patterns demonstrate clear improvements in both general cognitive understanding and classroom engagement. For example, the percentage of students who indicated "very understanding" of the overall course design or structure increased from 7% in the pre-test to 42% in the post-test. Moreover, the participants rating the overall course design in terms of "understand" went from 63% in the pre-test to 42%, implying that students were thinking about the overall course structure at a different level of understanding as the semester progressed.

Specifically, in regard to students' understanding of course content, the percentage of students who indicated "fully understanding" the courses content increased from a small 10% in the pre-test to 40% in the post-test. While the percentage of students who indicated "don't understand" and "very confused" dropped to zero during the post-test, it is evident that instructional clarity and student engagement ameliorated and that students had absorbed the course. Additionally, the percentage of students who were willing to engage with content learning in the classroom showed improved change from the combined percentage of "fully understanding" and "understanding" increased from 83% to 91% suggesting that the course design was an effective intervention for moving students from passive to active participation.

In terms of creating content connections to lived experienced, the percentage of students who felt able to apply the content learning, increased from 83% in the pre-test to 93% in the post-test and the group reporting “very understand” moved from 12% to 42%. This suggests that the course design did not just provide students with conceptual learning but improved their desire to put the learned concepts into action. Finally, the apparent relevance of students’ understanding of importance in relation to Administrative Law and national examinations increased from 15% in the pre-test to 44% in the post-test, pointing to the fact that students’ processing of knowledge ultimately improved their awareness of the relevance of content knowledge and skills they used in the environment.

Table 5 Administrative Law Course

		Measurement method	Very understanding	Understand	Fair	Don't understand	Very confused
The administrative law course itself	I understand the course design of administrative law this semester	Pre-test	3	26	9	3	0
			7%	63%	22%	7%	0%
		Post-test	18	18	7	0	0
			42%	42%	16%	0%	0%
	I understand the content of the administrative law course this semester	Pre-test	4	25	9	3	0
			10%	61%	22%	7%	0%
		Post-test	17	20	6	0	0
			40%	47%	14%	0%	0%
	I will participate in the discussion of the content of this semester's administrative law class	Pre-test	4	30	4	3	0
			10%	73%	10%	7%	0%
		Post-test	17	22	4	0	0
			40%	51%	9%	0%	0%
	I will apply what I learned in the administrative law class to my life experience	Pre-test	5	29	5	2	0
			12%	71%	12%	5%	0%
		Post-test	18	22	3	0	0
			42%	51%	7%	0%	0%
	I know the importance of administrative law to students' national exams	Pre-test	6	27	6	2	0
			15%	66%	15%	5%	0%
		Post-test	19	20	4	0	0
			44%	47%	9%	0%	0%

In all, this educational initiative demonstrated positive outcomes on student knowledge, engagement and practice of administrative law and additionally demonstrated the education benefits and possible use of problem-based learning and simulation strategies in legal education.

Course Materials: Pre-test and Post-test

The data set examined students' changing perceptions of the course materials and resources in the Administrative Law course, across several dimensions including: the textbook content, time spent on the content, practicality, difficulty, and the use of problem-based approaches to learning. The results compared from the pre-course and post-course survey assessments confirm that the students' acceptance and understanding of the subject matter increased during the course of the semester; it further continued to indicate depth of thinking which gave deeper meaning to the extent that instructional design impacts their learning motivation and strategic thinking.

To start, for the item "My thoughts related to the weekly arrangement of the textbook content for this course," the number of students who selected "very understanding" changed from 12% on the pre-test to 33% on the post-test. Considerably, the "don't understand" and "very confused" selections disappeared. Therefore, this indicates that the manner in which the materials were structured and sequenced was progressively understood and affirmed by students. This can be attributed to the alignment of the textbook and course schedule, and the instructor being clear in regard to the materials assigned. For the survey item, "My thoughts on practicality of the textbook content," more students in the post-test 37% versus 12% pre-test "very understanding," and "fair" and "don't understand" responses diminished substantially. This would suggest improved student satisfaction with pacing and time spent across challenges in the course of the semester. I would attribute to be value in the built module design or the flexibility provided related to the curriculum

With regard to, "My thoughts on practicality in the textbook," 35% of students selected the "very understanding" in post-test versus 12% pre-test the, and, once again, "don't understand" and "very confused" categories disappeared. Thus, it seems that text material not only carried theoretical trajectories, but the text also provided reason to dialogue with students with their lived experiences in regard to their own learning needs which also increased the authenticity and motivation for learning.

When examining, "My thoughts on difficulty levels," even though the comprehensive students who selected "very understanding" and "understand" were close to each other in results (84% based on the post-test), I think the increment of students in the "fair" category suggests the materials became more difficult, and required additional questioning integrated into the learning processes to enhance deeper levels of thinking and understanding of the materials.

Finally, with regard to the item, "My thoughts on learning through a problem-solving approach with the textbook," more students selected "very understanding" from the pre-test, 12%, to 35% post-test; and the "don't understand" and "very confused" selections completely disappeared. Therefore, not only does the material represent knowledge through design, I think there was value to the extent students used their own strategic thinking processes and assessments of their learning in the scope of problem-based learning.

Table 6 Course Materials: Pre-test and Post-test

		Measurement method	Very understanding	Understand	Fair	Don't understand	Very confused
Course Materials	My thoughts on the weekly arrangement of the textbook content for this course	Pre-test	5	29	4	3	0
			12%	71%	10%	7%	0%
		Post-test	14	25	4	0	0
			33%	58%	9%	0%	0%
	My thoughts on the allocation of class hours	Pre-test	5	26	7	3	0
			12%	63%	17%	7%	0%
Post-test		16	24	3	0	0	

	to be appropriate		37%	56%	7%	0%	0%
My thoughts on the practicality of the textbook content	Pre-test		5	27	8	1	0
			12%	66%	20%	2%	0%
	Post-test		15	21	7	0	0
			35%	49%	16%	0%	0%
My thoughts on the difficulty level of the textbook content	Pre-test		4	30	6	1	0
			10%	73%	15%	2%	0%
	Post-test		14	22	7	0	0
			33%	51%	16%	0%	0%
My thoughts on the problem-solving learning approach provided by the textbook	Pre-test		5	27	6	3	0
			12%	66%	15%	7%	0%
	Post-test		15	22	6	0	0
			35%	51%	14%	0%	0%

The statistical data provides a complex picture of the influence of classroom materials design on students' understanding, awareness of application, and the construction of learning strategies. Its value is not solely derived from the suitability and quality of a particular classroom material, but also from the connection between materials and pedagogies that accomplished deeper and more engaged learning. Collectively, the findings support the decision-making process, with evidence of textbooks and course literature supporting learning in professional situations (e.g., legal education, where textbooks function to direct students to think through the problems associated with the scenarios, thus demonstrating value in teaching and learning of the instructional materials).

Teacher teaching: pre-test and post-test

This set of data is about the students' perceptions and evaluations of the instructor's teaching methodology with a focus on problem-based learning and use of the Cloud-Based Real-Time Interactive System "Zuvio IRS". A comparison of the pre- and post-course survey results demonstrated not only increases in students' understanding of these pedagogical approaches but also furthered our understanding of their contribution to student engagement levels, quality of teaching, and learning experience. To begin with, for the item "What is PBL?" 47% of students in the post-test reported "very understanding", and the same percentage reported "understanding". Compared to the pre-test, 5% of students still reported "don't understand", however there were no students reporting "don't understand" in the post-test. This suggests that over the course of instruction students were able to achieve internalization of the conceptual framework and practical use of PBL.

In the item "I am very impressed with the teaching method of teachers who mainly use PBL in their classes.", the percentage of students who reported "very understanding" increased from 37% in the pre-test, to 47% in the post-test; and the percentage of students who reported "very confused" dropped from 2% to 0%. This not only reinforces the claim of students' increasing ability to identify the

pedagogical teaching strategies of the instructor, it also reflects the visibility and consistency of instilling PBL strategies in the classroom, so that students could recognize the instructional characteristics and purposes of the pedagogical techniques being utilized.

Regarding the item "I use Zuvio IRS 'Cloud Real-time Interaction System' for teachers.", the percentage of students reporting "very understanding" increased from 32% to 44%, along with the percentage of students reporting "don't understand" dropping from 7% to 0%. This shows a significant increase in students' acceptance and understanding of integrating technology in their teaching and learning experience, which is likely attributed to the instructor's prolonged, deliberate use of Zuvio for interaction, testing, and real-time feedback systems, making it possible for students to also integrate their use of the tool into their learning experience.

In the item "I mainly use Zuvio IRS in my teaching.", the percentage of students responding "very understanding" increased from 29% to 42%, with the category of students reporting "don't understand" removed again. This shows that Zuvio did not serve as an extra value to their instruction, but became the formative mechanism in a student-centered course, providing students a sense of participation in a real time interactive-learning experience.

Finally, in the item "I encourage teachers to use PBL to enhance the quality of teaching." the percentage of students responding "very understanding" increased from 27% to 42%, and students responding "don't understand" decreased from 10% to 0% - confirming students not only understood the operational aspect of PBL in this classroom, but also its efficacy in improving teaching quality and learning experience by promoting critical thinking, problem-solving, and learning motivation.

Table 7: Teacher teaching: pre-test and post-test

		Measurement method	Very understanding	Understand	Fair	Don't understand	Very confused
Teacher Teaching	What is PBL (Problem-Based Learning)?	Pre-test	14	18	7	2	0
			34%	44%	17%	5%	0%
		Post-test	20	20	3	0	0
			47%	47%	7%	0%	0%
	I am very impressed with the teaching method of teachers who mainly use PBL in their classes.	Pre-test	15	17	6	2	1
			37%	41%	15%	5%	2%
		Post-test	20	18	5	0	0
			47%	42%	12%	0%	0%
	I use Zuvio IRS "Cloud Real-time Interaction System" for teachers	Pre-test	13	18	7	3	0
			32%	44%	17%	7%	0%
		Post-test	19	21	3	0	0
			44%	49%	7%	0%	0%
	I mainly use Zuvio IRS in my teaching	Pre-test	12	17	8	4	0
			29%	41%	20%	10%	0%
		Post-test	18	22	3	0	0
			42%	51%	7%	0%	0%
	I encourage teachers to use PBL to improve teaching quality	Pre-test	11	19	7	4	0
			27%	46%	17%	10%	0%
		Post-test	20	20	3	0	0
			42%	51%	7%	0%	0%

This dataset reflects a profound shift in students’ understanding and regard of the instructor’s teaching methods, particularly regarding the integrated use of PBL and Zuvio IRS. Its importance is not merely reflected in their mastery of instructional technologies but in students’ increasing awareness and support of the pedagogical rationale. In this way, it enhances the transparency of the instruction and positions students to be more active participants in their own learning. These findings provide empirical support for course design going forward, establishing that innovative teaching strategies in legal education can happen and that it has the potential to greatly improve the quality of student learning and engagement.

Teamwork Problem Solving: Pre-test and Post-test

With respect to the category “My interactions and ways of engaging in my group,” the portion of students reporting “very understanding” rose from 24% in the pre-test to 47% in the post-test, while “don’t understand” and “very confused” categories were completely removed. This indicates students began building more concrete and positive relationships within their collaborative groups. These student outcomes not only reinforce the effectiveness of the grouping mechanism, but likely indicate the instructor was purposeful in facilitating group culture and relationships, enabling students to establish trust and mutual communication through collaboration together.

In the item “My interactions and ways of engaging with classmates outside of assigned group,” the overall proportion of “very understanding” and “understand” united was still 82% in the post-test, but “don’t understand” moves from 0% to 7%. This indicates there may have been limited opportunities to engage across groups or a disconnection within casual peer interactions for some. These metrics are a reminder to instructional designers to continue to build whole-class community—perhaps more through group to group discussion, collective class tasks, or reflective processes that build mutual understanding and community.

With respect to, “My guidance, communication and interaction with teacher,” 49% of students in the post-test transferred their “very understanding” from the pre-test from 29%, while “fair” moved down from 24% to 5%. This is a strong affirmation of student understanding of the instructor’s leadership and communication clarity over the course of the semester. This recognition is likely attributed to the instructor provision of consistent contextual framing of inquiry, where students received problem prompts and clarification, learning scaffolds, and where the students arrived in a way that made them generally comfortable to investigate their queries more.

To the item, “My view of the interactions and discussions together from students and teacher,” students returned healthy with metrics of improvement from 24% to 49% of students responding “very understanding,” while “fair” dropped from 27% to 7%. These metrics inform of more frequent and substantive discussions were taking place, both amongst students, and students and the instructor. This improvement can also be attributed to elements of scenarios of Dig (Coats et al. 2020), role assignment, and feedback process that provided opportunities to both experience discussions and draw on perspectives and/or critical space.

Lastly, with regards to “My view of applying PBL to team based problem discussion and resolution,” 53% of students in the post-test were at the “very understanding” level versus 24% in the pre-test, and “don’t understand,” and “very confused” were recruited from the categories. This means that students were not only affirming they understood the theoretical construct of PBL, but were applying key principles of PBL when engaged in collaboratively problem identification and resolution. This is a further confirmation for the construct of PBL pedagogies as an instructional approach—notably in support of active learning, critical thinking, and teamwork.

Table 8 Teamwork Problem Solving: pre-test and post-test

		Measurement method	Very understanding	Understand	Fair	Don't understand	Very confused
Teamwork problem solving	My interactions and ways of engaging with my group members	Pre-test	10	21	9	1	0
			24%	51%	22%	2%	0%
		Post-test	20	18	5	0	0

			47%	42%	12%	0%	0%
My interactions and ways of engaging with classmates outside of my assigned group	Pre-test		9	20	12	0	0
			22%	49%	29%	0%	0%
	Post-test		18	17	8	3	0
			42%	40%	19%	7%	0%
My guidance, communication and interaction with teacher	Pre-test		12	19	10	0	0
			29%	46%	24%	0%	0%
	Post-test		21	20	2	0	0
			49%	47%	5%	0%	0%
My perspective on the interactions and mutual discussions between students and the teacher.	Pre-test		10	20	11	0	0
			24%	49%	27%	0%	0%
	Post-test		21	19	3	0	0
			49%	44%	7%	0%	0%
My perspective on applying PBL to team-based problem discussion and resolution	Pre-test		11	19	10	1	0
			24%	49%	27%	0%	0%
	Post-test		23	13	7	0	0
			53%	30%	16%	0	0

This examination demonstrates the complex effects of PBL on improving interpersonal interaction, instructor-student communication, and collaborative problem-solving. Its value exists not only in the logistical successes of the instructional strategy, but also in creating a learning community and changing the learning culture. Students were enabled to move from passive receivers to active participants and problem-solvers. These results provide important empirical evidence for future course design based on work in public administration and legal education, where students' understanding of their profession and their ability to participate in a social engagement can be further developed through cooperative learning and scenario-based learning activities.

Experts' Opinions Feedback

Anonymous Experts' Feedback: EA, EB, EC, ED and EE

In this study, feedback on the course was provided by five anonymous experts, and the analysis is presented below. Drawing upon the six PBL case studies implemented in this course, several practitioners were invited to provide evaluative feedback on students' submissions, particularly their "PBL Problem-Solving Worksheets."

The expert emphasized that the instructional design, which introduces problems prior to formal instruction, effectively prompts students to engage in anticipatory thinking. This approach encourages learners to actively conduct research, synthesize theoretical and practical knowledge, and apply their understanding to formulate viable solutions. Such a structure not only stimulates intrinsic motivation but also cultivates critical thinking and the ability to gather and integrate information, ultimately leading to the generation of creative problem-solving strategies (EA).

Focusing on a scenario involving the unauthorized occupation of state-owned land and the disposal of waste, the expert emphasized that the instructional goal was to train students in assessing whether

immediate enforcement actions could be justified under administrative law. Students were expected to analyze the situation, distinguish between primary and secondary issues, and identify the root causes of the problem. Accordingly, the expert proposed three evaluative criteria for the worksheets: first, whether students clearly differentiated between core and subsidiary issues; second, whether they identified the underlying causes of the problem; and third, whether their proposed solutions were supported by relevant legal provisions (EB).

Throughout the course, each PBL session featured commentary from experts across industry, government, and academia—embodying the concept of “in-class practitioners.” This rotation of guest experts not only diversified the classroom experience but also enhanced students’ interest in various fields and professional contexts. By supplementing the instructor’s teaching with alternative perspectives, these sessions injected freshness and flexibility into the learning process. Students were encouraged to dissect problems from multiple angles, clarify legal disputes, identify lawful solutions, and express their views with confidence. The course thus cultivated not only professional competence but also a sense of civic engagement and social responsibility. From a pedagogical standpoint, this model was deemed highly commendable (EC).

The expert observed that students demonstrated insufficient comprehension of the news article’s central message, especially the first paragraph, which clearly stated that the Examination Yuan had lost the lawsuit. Instead of analyzing the broader implications of this defeat, students focused narrowly on the administrative reconsideration process—specifically the re-evaluation of the examination decision—thus missing the institutional significance of the ruling and its potential impact on administrative procedures (ED).

The expert commended the instructor for being among the few in the field to combine administrative law instruction with structured PBL documentation and case-based discussion. The course was organized around six representative cases, each introduced by the instructor to establish contextual understanding. Students were then grouped into teams to engage in collaborative analysis using the PBL method. Throughout this process, they were encouraged to use mobile phones, laptops, and other resources to supplement background information and search for relevant legal provisions. This approach not only facilitated active learning but also deepened students’ understanding of the operational logic of administrative law and the interplay between governmental authority and individual rights and obligations (EE).

Those specialists pointed out that through Problem-Based Learning (PBL), the course successfully begins the cognitive engagement of students prior to the establishment of more traditional learning activities. By asking questions up front and walking the students through case-based inquiry, the curriculum assists in developing a proactive learning disposition. Students are not simply passive agents of knowledge, but instead are situated as active investigators who will explore the relationship between theory and practice. This “problem-led” framework reflects authentic learning environments wherein thinking and action are interspersed.

In terms of pedagogical recommendations, the expert stressed the importance of thoughtful problem design. Problems should be moderately challenging yet engaging—“a bit difficult but interesting”—to spark curiosity and sustain motivation. Furthermore, instructors should adopt the role of facilitators rather than directors, encouraging students to think independently and engage in peer-led dialogue without excessive intervention. The expert also advocated for the integration of students’ lived experiences into the problem scenarios. Without such grounding, discussions risk becoming abstract and disconnected, diminishing both interest and the potential for holistic insight. When problems are too detached from students’ realities, the course may devolve into technical exercises devoid of educational depth (EA).

Students must recognize that learning administrative law cannot be achieved passively; active engagement is essential for meaningful acquisition. Problem-driven inquiry enables students to grasp both the theoretical significance and practical guidance of administrative law, as well as its role and impact within the broader field of public administration. Group-based discussions allow students to encounter and appreciate diverse perspectives, fostering intellectual pluralism and dialogic richness. Instructors can use the worksheets to discern individual learning trajectories and offer tailored feedback, thereby moving beyond the limitations of standardized midterm or final exam scores. Students benefit from receiving personalized insights into their strengths and areas for improvement, which supports more targeted and constructive learning enhancement (EB).

While students demonstrated an ability to understand the problems presented, their capacity to adapt to variations in the questions could be further strengthened. True learning lies in the ability to generalize and transfer knowledge across contexts. Although reactive problem-solving is a foundational skill, students should be encouraged to extend and transform their thinking, thereby enhancing the added value of the course. Although students cited legal provisions accurately, their ability to apply these statutes to specific factual scenarios—what legal scholars refer to as “subsumption”—requires improvement. Analysis of the “PBL Problem-Solving Worksheets” revealed that students often listed relevant laws without integrating the facts of the case, resulting in solution proposals that were rich in statutory references but lacking in contextual application. While this is not incorrect per se, it suggests that students have yet to develop the nuanced skill of legal subsumption, particularly given that they are not law majors. To address this, the expert recommended incorporating step-by-step exercises that guide students through example-based analysis, factual abstraction, and statutory alignment. Such scaffolding would help students move beyond surface-level understanding and cultivate deeper legal reasoning and practical application skills (EC).

First, case scenarios should be accompanied by guided reading strategies to help students identify the critical elements of the text. This deficiency in textual interpretation is often rooted in limited language comprehension skills, which in turn affect students’ ability to discern the problem’s core. Second, students—especially those with limited professional experience—need scaffolding to direct their inquiry. Providing conceptual pathways or guiding questions can help them focus their cognitive efforts on the substantive issues rather than peripheral details. Third, after students have identified causes and proposed solutions, their ideas should be subjected to reflective review. The absence of a “correct answer” in PBL does not preclude the need for evaluative feedback. Without such review, students may be unable to assess whether their reasoning aligns with broader consensus or practical applicability. This lack of calibration undermines the transferability of their insights to future contexts. (ED).

In terms of recommendations, the expert noted that while the six cases were rich in legal content, their complexity posed challenges for students outside the public administration major. Many of these students lacked foundational coursework in legal studies, such as introductions to jurisprudence, criminal law, or civil law. As a result, one or two of the cases may have been too advanced for them, potentially hindering their engagement and the overall quality of discussion. To address this, the expert suggested that the first case in the sequence be selected for its lower level of legal complexity, allowing all students—regardless of background—to build confidence and become familiar with the structure and purpose of the PBL worksheet (EE)..

In the end, the specialist stated that PBL can serve as a better means of achieving deeper learning outcomes, if we are open to creating problems that comprise both a cognitive challenge and personal usefulness. The instructor’s stance will be one of low-impact facilitation at best; allowing students to experience the confusion, the negotiation of meaning, and the co-construction of solutions. Assuming that is accomplished, we could expect the course to transcend learning to procedures, and realize its educational purpose—empowering students to think critically, co-create and collaborate to give solutions to bear, to the personal complexities of administrative law.

Students’ Opinions Feedback

Anonymous Students’ Feedback: SA, SB and SC

First, regarding the “Problem-Solving Record Sheet” and the “Learning Outcome Report Sheet” the following observations and suggestions are offered:

The responses recorded in the PBL problem-solving sheet allow us to explore a given topic by identifying its nature, understanding the causes behind the problem, and contemplating possible solutions. This process is further enriched by referencing relevant provisions in the Administrative Law, which guides both the identification of issues and the application of legal norms. The outcome report sheet, on the other hand, facilitates clear task allocation among students, enabling efficient collaboration and problem identification. Through this division of labor, students also come to appreciate the importance of teamwork, which I believe is the most valuable learning experience in group-based assignments. The learning outcome evaluation fosters mutual understanding among team members, revealing who may have underperformed or excelled. Such insights, I believe, reflect the thoughtful design of both the record and report sheets (SA).

I find this teaching method quite unique. Unlike traditional approaches where the teacher lectures from the podium without much concern for whether students are truly absorbing the material, this format allows me to learn much more. I can reflect on the questions posed by the instructor, consult the textbook to explore possible answers, and engage in meaningful discussions with my group members. Eventually, we also exchange ideas with other groups, which exposes me to perspectives different from my own. I think this is excellent—it motivates me to delve deeper into the subject matter.

From the perspective of the problem-solving record and the outcome report, these tools are not merely traces of student learning; they serve as bridges for knowledge construction. The record sheet prompts students to pause and think when confronted with a problem, guiding them through data collection and conceptual clarification. The outcome report, in turn, offers a chance for integration and reflection, helping students consolidate their understanding while engaging in dialogue and exchanging viewpoints with others, thereby broadening their perspectives (SB).

Before the course began, the instructor explained the purpose and use of the “Problem-Solving Record Sheet” and the “Learning Outcome Report Sheet” providing examples to illustrate how each should be completed. On one occasion, the instructor invited students to engage in a case-based discussion to help them become familiar with the PBL format. Within the department’s curriculum, it is relatively rare for instructors to integrate these tools into legal education. The instructor’s intention was to employ group-based case discussions to encourage students to engage in autonomous learning by identifying and addressing problems. During PBL discussions, students were allowed to use their mobile phones to search for relevant information (SC).

The task identification sheet is valuable because it serves as a cognitive map leading students to the point of the problem. When students need to break a problem down, clarify causal ties, and first work on responses to the problem, the task sheet does more than just prompt them to “answer questions;” it is teaching them “to construct logical arguments,” and “to use legal rules” to scaffold their understanding. For a subject such as administrative law, which is abstract and normative dense, this structure guides them away from rote learning of statutes and toward a more engaged learning activity, to engage with how legal norms create meaning around problems and produce reactions to social phenomena.

Similarly, the outcome reporting sheet not only exemplifies the efficacy of collaborative work but, importantly, it creates transparency in team environments and learning experiences. Your note is legitimate: through assessment of learning outcomes, students are not simply able to report back what they have done, they can also visibly see how others are interpreting and engaging with the task. When students begin to reflect back on their differences to how they engaged with the learning, the assessment process also adds an uptake in the concepts of mutual knowledge and trust.

Second, regarding student feedback on the use of PBL in the administrative law course:

Students expressed that the PBL-based approach to administrative law was highly effective. It not only facilitated interaction between students and the instructor but also encouraged the exchange of diverse perspectives through group discussions. These discussions helped students better understand and analyze case studies. Occasionally, disagreements arose due to differing opinions among group members, but such conflicts were seen as meaningful—without discussion, students would merely listen passively to lectures without engaging in critical thinking. The combination of peer discussion and instructor guidance not only deepened students’ understanding of the case content but also added an element of enjoyment to the learning experience (SA).

Some legal provisions are not commonly encountered in daily life, but administrative law is actually closely tied to our everyday experiences. The instructor often reminds us: “You need to understand the law in order to protect your rights from being infringed.” This has made me more interested in learning about things that relate to daily life, such as statutes and case studies. This discussion-based format also helps me retain information more effectively and leaves a stronger impression (SB).

The instructor allowed students to use mobile phones during class, encouraging group members to collaborate and divide tasks in order to find answers and attempt problem-solving. The instructor also actively participated in group PBL discussions, offering guidance on how to approach the issues and suggesting strategies for information gathering (SC).

Students also noted that PBL discussions helped train their analytical skills and taught them how to express their ideas confidently, engage in case-based dialogue, and resolve conflicts when disagreements occurred. More importantly, they appreciated the opportunity to hear multiple

viewpoints, which prevented intellectual narrowness and encouraged them to reassess their own thinking and seek better solutions. As such, they expressed a strong preference for the PBL format over traditional lecture-based instruction, which they found less engaging. The opportunity to share opinions and insights with classmates made the learning process more interactive and enjoyable, and they felt that PBL helped them absorb course content more effectively than conventional methods.

Students emphasized the significance of engagement and conversation, confirming PBL's ability to combat passivity in conventional lectures. They considered the divergences of opinion a normal and beneficial aspect of something deeper. Students perceived PBL as fostering critical thinking, social communication, and reflective self-awareness. These were on par with higher-order administrative law goals surrounding case-based analysis. Further, the students noted improvement in expressing opinions and dealing with disagreements suggesting development of affective and interpersonal capabilities. This feedback demonstrates the real-world implications of PBL in an administrative law course and outlines some pedagogically relevant aspects of student-instructional interaction. Students observed a clear shift in the role of the instructor from that of a traditional transmitter of knowledge, to a facilitator who mediates discussion, offers strategic guidance, and directs inquiry in the session. This change in the role of the instructor reflects the fundamental tenets of PBL fostering learning together, as students participating as owners with a role in their education.

This study brings together three sources of data—the post-course survey findings, the pedagogical recommendations offered by experts, and the student feedback collected throughout the learning process—and summarizes the three data sets in the table below. Through triangulated analysis of these three data sources, the research team gained a holistic understanding of the occurrence and effectiveness of Problem-Based Learning (PBL) in this course. This table makes evident the significant impact of PBL on students' learning motivation, interactions with classmates and the instructor, and pedagogical practices of the instructor. This table also demonstrates the transformations that occurred in the role of students as learners and how instructors adopted pedagogical strategies through a process of adaptation. The endpoints of this study exemplify that by embedding both quantitative and qualitative data into the study, the findings of this study translates into substantive and multidimensional evidence that can inform curriculum development, and has value as a reference guide in the realm of innovation and pedagogy for public administration and legal education.

Table 9 Insights from Survey, Experts and Students

	Findings from the Survey	Experts' Perspectives	Students' Views
Findings on the implementation of PBL in this course	The application of Problem-Based Learning (PBL) in this course has brought about many positive outcomes related to interpersonal interaction, communication with the instructor, and collaborative problem-solving. Its value lies not simply in the effectiveness of its teaching strategies, but also in the opportunity to create learning communities and to change the culture of learning as students adapt from passive recipients of information to active participants and problem solvers. This presents empirical evidence for curriculum	Experts noted that PBL, can even activate students' cognitive engagement prior to any traditional instructional process. By utilizing questions before the task to stimulate inquiry into a case, this course encourages students to take the lead in learning. Students are no longer passive consumers of knowledge, but investigators who regard concepts primarily for understanding theory and practice relationships. Thus, a problem-oriented framework produces a realistic perspective	Students posit that PBL discussions support their analytical skills, promote their confidence in expressing themselves, advances case-based dialogue, and facilitates opinion discussions and differing views. They embrace the different perspectives they heard and felt as if that prevented them from being narrow-minded while stimulating debate and self-reflection and finding better solutions to problems. They engage in a format that is much better equipped than traditional lectures to be interactive and to engage them in ways that support content learning. Students valued participation and to converse with each other in PBL, as they view PBL as a

	<p>development in the public administration and legal education learning field, as PBL emphasizes the power of collaborative learning, and problem-based, contextual learning.</p>	<p>that melds thinking with action.</p>	<p>way to move away from their own passivity in the traditional classroom toward a practice wherein critical thinking, social communication, and reflective awareness is possible. Students also noticed a shift regarding the instructor from a transmitter of knowledge to a facilitator, or a guide, capturing the essence of the collaborative learning vision portrayed by PBL.</p>
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Analysis and Discussion: PBL in the Administrative Law Courses

Analysis

The study investigated the implementation of Problem-Based Learning (PBL) in the Administrative Law courses and its effects on student learning. The results indicate that students' understanding and comprehension of administrative law improved significantly under the PBL approach. The implications of the current study can be captured in several key dimensions:

Enhancing Understanding of Administrative Law

Through six representative PBL case designs, students were guided to recognize legal issues in relatable contexts, consider relevant legislation, and suggest possible solutions. Their engagement with the “Problem-Solving Record Sheet” allowed students to develop legal application competency skills while also providing context on administrative law and the operational logic of public authority through theory to practice. The results suggest that teaching and learning in the Administrative Law can be approached by moving away from notional approaches and provide a consequential basis for encouraging students' legal reasoning and interpretive abilities. Student feedback indicates that many participants indicated that discussing real-life cases enhanced their understanding of legal application development. In addition, this simulative learning in context not only enhanced motivation but also assisted students in recognizing the importance of law and its relationship to their everyday life. Statistical exploration also indicated a clear trajectory of increasing students' understanding of the use of problem-based learning and re-imagining the development of the overall course. The improvement hinted at statistically is supplemented with qualitative feedback provided in an anonymous fashion by expert reviewers and students in the course. Reviewers and student comments demonstrate a consistent positive response to the use of PBL within the Administrative Law clinic, establishing it pedagogically relevant and conducive to practice. The convergence of these qualitative and quantitative findings suggest that the instructional design is effective and warrants the continued and future use of PBL as an important transformation to advance legal education.

Pedagogical Innovation

This research shows evidence of the feasibility and effectiveness of using problem-based learning (PBL) in the Administrative Law classes, particularly through the use of engagement with practitioners in class and group work. The development of this triadic model—of theory, practice and civic engagement—is a meaningful move away from traditional teaching through lecturing. It emphasizes student agency and shifts the instructor's role to that of a facilitator, while offering a clear paradigm shift for legal and public administration education in post-secondary education. Statistical analysis demonstrates strong student affirmation of the instructor's practices, particularly in relation to PBL. This quantitative affirmation is replicated in the anonymous surveys from peers and students, all of whom indicated that PBL was a novel and innovative method within a course on Administrative Law. The combining of both quantitative and qualitative data indicate that it satisfies pedagogical practice for the purpose of law teaching and introduces a progressive means of engaging students in legal reasoning through collaborative problem solving.

Strengthening Student Competencies

Both expert assessments and student evaluations have consistently indicated the effectiveness of PBL in creating important student capabilities. Students were able to reason more deeply and perform analyses of problems, while group work provided experiences that built up students' communication, leadership, and conflict resolution skills. They also seemed to be able to grow their skill in interpreting statutes and abstracting from facts, which built other skills organically in the development of understanding for the practical logic behind governing legal rules. PBLs, by (re)centered on utilizing engagement to solve problems, likely extended development for students both analytically and interpersonally. Groups discussions effectively uses students in different perspectives in the consideration of the problems, and that developed more thorough solutions to the problems problem-based by integration of students experience. Scholars noted that these experiences promote knowledge in a collaborative space and experience that ultimately trigger satisfaction in the overall student experience. Of course, the numbers and statistical analysis of increasing skills were evidence of positives using problematic-based learning (PBL), which was an outcome of the implicit student experience. These numbers coincided with anonymized graduate recommendations provided by expert scholars and students across a persistent responding correlated that PBLs supporting engagement in conversation and deeper analysis. Therefore, the integration of PBL's participation in quantitative numbers or left for qualitative meaning supports the evident efficiency in the teaching role and engagement in developing a more active reflection as a teaching/learning environment in legal education.

Fostering Instructor-Student Interaction and Instructional Reflection

Teachers switched from being in the role of a knowledge provider—to being in the role of a learning facilitator, using student-generated logs to deliver personalized feedback. Rather than engaging in a one-way knowledge transfer, teaching became a responsive cycle of learning, rooted in students' quality of learning. With the approach to teaching incorporated into the logs, teachers were able to identify blind spots in student learning and then initiate instruction as an enriched interaction. The log provided empirical support for designing and revising curriculum. This study also highlighted the teacher's reflection and adjustment in teaching. When obtaining student feedback, teachers learned more about the challenges students were experiencing to gain their learning, and in turn, adjusted their instruction. The change from provider of knowledge—to facilitator of learning—positively impacted classroom interaction and learning outcomes.

Establishing an Effective Feedback Mechanism

The course incorporated an essential multi-layered feedback system based on the Problem-Solving Record Sheet, Learning Outcome Report Sheet, and digital interaction via Zuvio IRS. This was beneficial for teachers to see how students were making sense of instructional content in a live context, while also allowing for student self-inquiry and peer feedback. Data provided enhanced transparency in teaching and provided students with better clarity of the learning process, which can be adapted clearly to student knowledge. The study revealed positive implications for the use of PBL; however, challenges (e.g., students were confused about PBL for the first time they encountered it) still exist. These students need more time to build their skills in understanding and addressing problems. The future curriculum construction needs to be oriented to better develop students' PBL thinking by providing further opportunities for autonomous learning, as well as guided support to assist them in adapting to learning through this method. Results of the statistical test confirm that instructor-student interaction was a notably positive phenomenon in the overall instructional process, and in particular, the quantitative trend is followed by anonymous feedback from both learned scholars and students, as they both note the value of interaction and value of teaching reflection. The unity of collected statistical data and student comments suggest that meaningful interaction between instructors and learners: (1) creates immediate and responsive teaching and learning of practical experiences in the classroom, and (2) builds a climate of improvement and continual learning together, in the teaching of administrative law.

Discussion

This research reveals, through its on the ground work of introducing Problem-Based Learning (PBL) into administrative law teaching, the many advantages of PBL with respect to teaching methods, students' ways of learning, and developing competencies for the profession; as well as recommendations for improvements; thus, making a contribution for pedagogical purposes as well as for theoretical implications. In discussion, we outline:

Critical Thinking

The instruction of PBL successfully promoted students' active learning and critical thinking. Scholars noted early on that the case introduction, or the framing of the problem, helped to engage students' cognitive engagement and elicit data collection and argument construction before any direct instruction began. This, in turn, seems to indicate that a design that is problem-centered can be successful in fostering students' "cognitive readiness" and motivating students to learn.

Learning Autonomy

The change of the instructors' role epitomized the essence of PBL. Both practitioners' and students' feedback indicated that the instructor was no longer a knowledge giver, but a facilitator who directed inquiry, provided a context for scenarios, and directed students toward relevant materials. This change not only enhanced interaction between instructors and students, but also enhanced students' independence and responsibility for their learning.

Form-Based Tools

Resources like the "Problem-Solving Record Sheet" and the "Learning Outcome Report Sheet" served as supports during students' learning, as abstract legal concepts were normalized into practice, and provided a basis for instructional diagnosis and feedback. The students were helped to articulate their legal reasoning clearly, reflect on their own learning in a review process with peers, and develop greater capabilities in statutory interpretation and reasoning skills through this written reflection process.

Initial Challenges in Comprehension

However, the research also highlighted some challenges and opportunities for improvement. Experts pointed out that students from outside the public administration program (without prior legal experiences) had more trouble understanding the course material in the early weeks. They suggested that moving towards a gradual approach may help by starting with cases that are lower-threshold, and working them up towards the full range of cases, allowing students time to develop the foundational conceptual frameworks needed to complete the learning objectives for the course. Far too often, students also encountered problems applying statutory language, and experienced more frequent disconnection between legal contextualized language and fact patterns. For this reason, these aspects of the course would need to be reinforced through examples, and simulated exercises.

Practitioner Engagement

The integration of a cross-sector practitioner model—a combination of connections to academia, government, and business—broadened the perspective of the Class and inspired students to take a deeper interest in public affairs and the legal profession. Student comments indicated that practitioners' participation brought the course into greater proximity with real-world situations and prompted students to think critically about the social implications and value judgements associated with legal reasoning. This demonstrates a public dimension and civic duty element to legal education.

Overall, the incorporation of PBL in teaching administrative law does not only remedy the challenges associated with traditional pedagogies but also supports the development of students' holistic learning in knowledge, skills and attitudes. Future program design and research should continue to highlight how to achieve a balance of being advancement cognizant and subject matter rigorous, as well as leveraging thoughtful and purposeful models for providing guidance and feedback, for student groups with developed and developing skill sets.

Conclusion

Research Findings

In recent years, the incorporation of Problem-Based Learning into curricula in the field of public administration has emerged as an international trend. This study examined the implementation of PBL in an administrative law course and investigated its effect on students' learning outcomes. Using pre- and post-course survey data, the results indicate that PBL leads to increased student learning enthusiasm.

First, PBL has a clear impact on increasing interest in the course, which is important for promoting motivation and engagement. Students are more interested in a course when the course examines real problems and students understand the practical relevance of the material, thus increasing students'

engagement in the learning process. Second, the online learning interface developed by the instructors enabled them to monitor students' progress and have both synchronous and asynchronous exchanges. The exchanges triggered students' deeper understanding of case materials, permitted greater flexibility in structure of the instructional practices, and allowed for students' feedback. The instructor contribution through online engagements provided students with feedback to students' questions, additional resources, and willful guidance on the complexity of issues, thus contributing to students' comprehension and discussion of organizational administration. Third, the results of implementing PBL in the Administrative Law class clearly demonstrated an increase in student interest in learning. The combination of providing abstract legal provisions and real scenarios, made engaging with the materials easier and more memorable, which allowed students to better internalize and apply legal knowledge.

Education research should pursue the above findings from this study that provide possible connections to future research directions of PBL's pedagogical impact in the field of administrative law education. First, while student interest is increasing and is clearly on the rise, future research should focus on actual learning outcomes as future studies could look at students' knowledge for the law, problem-solving skills, and even critical thinking skills. These studies may draw on varied assessments such as themed project report, simulations, and performance-based tasks that imitate real-world legal issues. This will provide a broader understanding about students' cognitive and analytical development. Next, we should take a task to analyze changing interaction between students and the instructor, which is relevant to growth in online learning. Students are still participating in class, getting feedback, and guidance, but now they are doing so with a technology-centred approach. Research studies built upon interviews, observations of their learning experience, or examination of some sort of online communication, could determine how the student's experience with the instructor, as facilitated by technology, impacts student understanding and motivation, and their approaches to learning collaboratively.

The instructor-student pedagogical situation as experienced by students in an online classroom is another necessary aspect of instructional improvement and responsiveness in a PBL framework. Third, future studies should identify how PBL can be improved through category experiential, scenario simulations, competitive collaboration, and role-playing. These methods providing some degree of more vivid and creative ways of knowledge and learning, while developing initiative and potentially creativity. Contextually situating legal problems within courses that provide dynamic and contextual meaningful environments may facilitate students' understanding of the law, problem-solving skills, and further applying this knowledge from context to practice. Experiencing within PBL environments not only strengthen private law education and promote context to practice for the legal profession, but develop engaged interpersonal and strategy skills many public administration students will use in their professional career. Finally, and most importantly, future research should ensure pursuing a pedagogy that balances depth of substantive theory yet has enough means to be accessed by students' learning ability level of depth of theory and its complexity so students continue to navigate between pedagogy and theory-based practice and that PBL continues to strive to ensure significant challenge to students across multiple learning opportunities.

Research Limitations

The current study recognizes a number of limitations that could influence how we interpret or generalize its results. First, the study sample was relatively small, which limits the extent to which conclusions can be generalized to larger groups of the population. Number of classes versus students enrolled in the problem-based learning study is not statistically robust to demonstrate the diversity of learners in the public administration department or in any other organizational context. Second, the study was time constrained to one course, specifically during an academic year from September 2022 to June 2023. Therefore, the results do not give insight into the potential impact of problem-based learning over time. Future studies should utilize longitudinal approaches to examine the impact of problem-based learning on student learning and professional identity over time. Third, the extent of autonomy and engagement varied between students, presenting a subjective quality to student experience across individuals. Individual engagement and receptivity of the PBL classroom is greatly dictated by prior experiences juxtaposed with personal learning styles and approaches to changing pedagogical formats. These diverse learning styles add a subjective factor to the interpretations rendered, and feedback or learning outcomes can be inconsistent. Fourth, the value and benefits to problem-based learning is related to the instructor's approach and facilitation. Instructors may differ in how they initiate their framed problems, and subsequently how they manage the groups in relation to

each other. The instructor's role transforms in problem-based learning classes from purveyor of knowledge to facilitator of student knowledge, impacting the class dynamic and depth of engagement.

Lastly, mobile devices or tablets were used to acquire information for a problem, which promote flexibility and immediacy but may create over-reliance on online means of acquiring information. This reliance on digital content can impact students' critical thinking and problem-solving capabilities, especially without structure or instruction to synthesize or critically evaluate content. The challenges of integrating technology into problem-based learning highlight how instructors have to be methodical in designing the learning and the supports they provide to the students. The future studies should include a longer-term view and incorporate more extensive designs to support the concept of sustained demonstrative benefits of problem-based learning over time. Longer-term research would allow examination of more nuances related to the impact of problem-based learning on student engagement, critical thinking, and professional identity. Incorporating longitudinal data and consideration of educational contexts would provide the basis to examine and demonstrate the lasting pedagogical impact of problem-based learning and its viability in other educational disciplines.

Ethical approval

This research project did not require research ethics committee approval.

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