**ORIGINAL RESEARCH**

# Law Abidance Leadership Education for University Students in Hong Kong: Subjective Outcome Evaluation

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## Abstract

Adolescence is an "age of rebellion" when adolescents challenge authority and break rules on an experimental basis. Hence, it is important to promote law abidance, particularly when we expect young people to become future leaders. In this study, we implemented a 3-hour face-to-face module on law abidance leadership with national security as a part of the contents. To understand the perceptions of university students taking the lecture ($N=1,285$), we employed a 26-item post-lecture evaluation questionnaire to conduct subjective outcome evaluation. Confirmatory factor analyses (CFA) as well as multi-group CFAs based on two randomly selected samples, demonstrated the three dimensions intrinsic to the scale (i.e., lecture attributes, teachers' qualities, and appreciation of law abidance leadership) replicated the previous findings, hence supporting the construct validity of the instrument. Regarding perceptions of all respondents ($N=985$), students generally held positive views on lecture design and delivery. Besides, they agreed that this module benefited their personal development in critical thinking, problem-solving ability, moral competence, interpersonal communication skills, law abidance leadership, and their understandings about the significance of national security. More than 95% of the participants expressed their desire to become law-abiding citizens and take on social responsibility. The qualitative responses also triangulated the quantitative findings, with most of which being positive responses. This study replicated our previous research, and enriched the scientific database on teaching politically sensitive topics in the context of higher education.

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# Introduction

## Background of this Study

In addition to having good problem-solving skills and interpersonal skills such as communication, a successful leader should also be a law-abiding leader. Law abidance is commonly regarded as the behavior of following the rules and laws of the society. Law abidance is important because violation of law would have devastating consequences for individuals and society (Shek et al., 2018, 2022a). Obviously, law-abiding leadership and associated law-abiding behaviors should be cultivated among youths as they are tomorrow's leaders. Moreover, according to Shek et al. (2023b), the provision of law abidance education has the potential for enhancing various dimensions of well-being, such as intellectual well-being, emotional well-being, social well-being, and environmental well-being.

Unfortunately, deviant behaviors such as cheating in examinations or plagiarism is not uncommon among adolescents and is now a growing problem globally (Anitha & Sundaram, 2021; Chen & Chou, 2017). Thus, to minimize these misbehaviors which may develop into more serious wrongdoings or even crimes after they step into the society, young people should understand the value of law-abiding behavior. Actually, experts believe that relevant education helps students lessen the probability of making irrational decisions and deviant behaviors (Wang, 2020). In such a context, Niu (2022) argued that as institutions aim to create and promote knowledge for the well-being of individuals and surrounding communities, as well as to remove ignorance, higher education institutions play an important role in enhancing law-abiding behavior among university students, particularly within the context of leadership development.

As a part of civic or citizenship education, law-related education (LRE) plays an important role in teaching law to university students for enhancing their legal awareness. It protects the younger generation from committing illegal or criminal acts through ideological guidance. Meanwhile, LRE can also help develop responsible citizenship among students, promote their civic engagement, and eventually improve the quality of life of communities (Baeihaqi & Komalasari, 2021). This goal is consistent with the educational philosophy on preparing university students to be law-abiding citizens as well as cultivating their ability to think critically about a certain issue. Dowell and Meidl (2016) argued that "LRE provides students a true sense of the nature and need of the law, and develops the skills of modern citizenship through active engagement in the learning process and the contact with community resources" (p. 10). Moreover, LRE can also maintain social harmony and stability. It is argued that only with legal knowledge can society and the younger generation function effectively within the confines of democracy (Dowell & Meidl, 2016).

In the light of Hong Kong, there is evidence that young people lack comprehensive conceptual knowledge of legal requirements (Kennedy & Chow, 2009). Besides, two major social events involving occupying roads and public facilities took place in the last decade in which many young students participated (Li & Finkenauer, 2021). In particular, the "social unrest" in response to "the Anti-Extradition Law Amendment Bill Movement in 2019" led to the proliferation of social conflicts as well as violent

incidents. Statistics from the Hong Kong Police Force showed that a total of 10,278 people had been arrested by June 2022, among whom 4,010 were students, accounting for 39% of the arrestees (Mingpao, 2022). Charges against protesters included rioting, unlawful assembly, arson, possession of offensive weapons, assaulting police officers and stopping vehicles on the highway (Ng, 2021). The occurrence of these incidents probably reflects students' insufficient legal awareness and understanding of the value of law abidance, which made them susceptible to external influences and prone to disobeying the laws as an approach to cope with stress (Shek et al., 2022a). Therefore, it has become a very urgent and necessary task to facilitate law-related education on national security in Hong Kong universities and raise the awareness of law abidance among university students and the public.

Previous studies have proposed possible benefits of current law abidance leadership education in improving students' multi-dimensional well-being, as well as shaping life circumstances and health (Shek et al., 2023b). In terms of the eight dimensions of well-being established by Stoewen (2017), these enhanced well-being dimensions cover intellectual well-being (acquiring knowledge and skills related to NSL), emotional well-being (refining emotion management in relation to NSL), social well-being (maintaining social order and security by following NSL), and environmental well-being (understanding how social issues impact on individuals). Ultimately, citizens who abide by the laws have been found to be mentally healthy as law abidance offers inner security (Dingake, 2017). In other words, law abidance leadership education is highly relevant to enhancing individuals' quality of life (Hawks et al., 2008). Furthermore, the changes will take place beyond the individual level of university students to the collective level of Hong Kong society through maintaining social harmony (Shek et al., 2023b).

Accordingly, the Hong Kong government implemented the Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region (also known as the "Hong Kong National Security Law" or NSL) in accordance with the Constitution, the Basic Law and the National People's Congress (NPC) Decision on June 30th, 2020 (HKSAR, 2020b). It aims to "establish and improve the legal system and implementation mechanism for safeguarding national security in the Special Administrative Region" (HKSAR, 2020a), thereby closing the serious loophole created by the failure to legislate on "Article 23 of the Basic Law" (Lau, 2021). The introduction of NSL was welcomed by most people as it would help restore social order in Hong Kong (Lau, 2021; Shek et al., 2022a). However, as the NSL is a "top-down" initiative and politically sensitive, some people have forcefully argued that NSL education has undermined democracy and human rights in Hong Kong, even damaged academic freedom. On the other hand, some people also counter-argued that after the 9/11 incident, dreads of terrorism led to "shockwaves and triggered anxiety for immediate security risk" (James & Janmaat, 2019, p. 2), while laws pertaining to national security have gained more specific and focused attention. Many countries enacted their own national security law and acts and renewed them for several times, in order to respond to terrorist concerns and to combat treason and subversions. For example, in order to combat terrorism, nations such as Canada, Germany, Indonesia, and China passed laws that were quite similar to one another. These laws have criminalized new offenses pertaining to terrorism

including "conspiracy, planning, recruitment, incitement, and indirect assistance, cracked down on terrorism financing, increased resident surveillance, and tightened border controls" (Scheppele, 2010, p. 438). Every nation altered at least some of its legal framework in order to implement anti-terrorism measures that adhered to such a quadrinomial model (Scheppele, 2010). Thus, the enactment of the HKNSL is consistent with global practice that protects national security and nation's sovereignty (HKSAR, 2021).

## Law Abidance Leadership Education in Hong Kong

As there are skeptical views on the NSL in Hong Kong, a thorough knowledge of the legislation is essential to fostering public support. Meanwhile, "Article 10 of the Hong Kong National Security Law" states that "the Hong Kong Special Administrative Region shall promote national security education in schools and universities and through social organizations, the media, the Internet and other means to raise the awareness of Hong Kong residents of national security and of the obligation to abide by the law" (HKSAR, 2020b). Thus, there is a call for universities to introduce law abidance education with a focus on national security education for a better understanding of the importance of the NSL as well as enhancing students' law-abiding consciousness. Fairbrother (2007) pointed out that with regard to China, "legal education directives call upon schools not only to teach attitudes and practices of obedience to the law and acting according to the law, but also to foster a legal consciousness" (p. 5). Although some scholars have contended that citizenship education can be viewed as one of the prime responses to enhance adolescents' awareness of law abidance, almost no general education subject related to law abidance and with a focus on national security has been implemented in the university setting (Spaulding & Parker, 2019).

In response to the call for law abidance education for college students, a 3-hour lecture was incorporated into a subject entitled "Tomorrow's Leaders", a compulsory general education subject for all Year-1 undergraduate students at a public university in Hong Kong. The law abidance leadership education contains a 3-hour teaching of a lecture entitled "Law abidance Leadership", 7-hour self-study materials, and an assessment (Shek et al., 2022a, b, d).

The 3-hour lecture consists of three parts. First, we cover the concepts and theories of law abidance, the importance of obeying laws in society, law abidance leadership and socially responsible leadership. Second, we elaborate on the concept and importance of national security, including a brief introduction of modern Chinese history and the restoration of Hong Kong to the People's Republic of China in 1997 to underscore the importance of safeguarding national security through NSL. Third, we introduce the Hong Kong National Security Law, including an overview of the four major offences stated in the NSL, court cases related to the NSL, and issues and myths surrounding the NSL. Our aim is to equip university students with knowledge and positive attitudes so that they can fulfill their roles in society and practice law-abiding citizenship and leadership in daily life. Due to the time constraints in the lecture, we are not able to cover every detail in the above-mentioned topics. Thus, we also provide students with the self-study materials consisting of 60 lecture notes cov-

ering details of modern Chinese history, "the Constitution", "the Hong Kong Basic Law", and "Hong Kong National Security Law".

With both lecture (3 h) and self-study (7 h), we expect that students would gain knowledge and have a basic comprehension of the related concepts. Nine instructors holding master and/or doctoral degree in Social Sciences (e.g., Social Work, Sociology) taught the lecture. Before engaging in teaching, all instructors were pre-trained around 12 h with basic pedagogical skills and knowledge, such as how to promote in-class discussion and offer supportive learning environment for students. Materials for instruction and learning, such as lecture notes, readings, assignments, are distributed uniformly to maintain stability in learning outcomes across classes.

Upon completion of the lecture and self-study, students are required to take an assessment composed of 20 multiple-choice questions allowing for multiple attempts and with an 80% passing threshold (i.e., 16 correct answers). Retrieval practice or testing is a learning technique where one is required to retrieve information from memory in lieu of restudying the same information repeatedly (Roediger & Butler, 2011). Results of a meta-analysis revealed that tests and other types of retrieval practices promoted benefits in learning and long-term memory (Adesope et al., 2017). Davis et al. (2020) advocated the use of unlimited attempt quizzes as an effective tool to gauge students' learning based on an experimental longitudinal study investigating the relations between the total number of attempts, total test duration, and subsequent exam scores. Findings specified that the more efforts and time put into the attempts, the higher the scores (Davis et al., 2020). Besides, students' scores in multiple-attempt exams were 10–20% higher than those in single-attempt exams (Daffin & Jones, 2018). It is because unlimited attempt quiz, as an effective cognitive tool and technique, can promote both retention and knowledge transfer in both short- and long-term through repeated retrieval. Unlimited attempts also can increase the likelihood of a successful learning outcome with high quality and good quantity, regardless of students' memory capacity (Butler, 2010; Davis et al., 2020). Furthermore, Faulconer et al. (2021) found that an assessment design with multiple attempts encouraged students to keep trying and benefited their knowledge acquisition and retention. As there are no golden standards for setting the passing threshold, universities often select the most appropriate approach to meet educational and testing purposes (Ben-David, 2000). A passing threshold of 60% is commonly adopted in universities, requiring students to demonstrate at least marginal achievement of intended subject learning outcomes. However, a passing threshold of 80% is also widely adopted in some programs in higher education (e.g., Davies et al., 2018; Sando & Feng, 2018). For instance, the passing threshold of one drug information course at the College of Pharmacy, the University of Florida was set at 80%. Should students failed to reach this cut score, they were allowed to make a second attempt (Sando & Feng, 2018). Meanwhile, the pharmacy calculations assessments at Western University of Health Sciences College of Pharmacy also bear the passing score threshold of 80% (Davies et al., 2018).

Because it is crucial for students to comprehend the concepts and salience of national security as well as NSL, we set the passing threshold of the test in the "Law-abiding Leadership" lecture to be 80%, expecting students to demonstrate a good to excellent achievement in learning and understanding this topic. This type of assess-

ment is also used in the commercial fields, expecting workers to gain a minimal understanding of certain knowledge (Hecksteden et al., 2018). According to Rui et al. (2016), "repetition is a learning-by-doing process whereby employees further improve and refine existing practices and procedures, and standards or best practices can even emerge" (p. 695). Thompson (2010) also addressed that the employees could eliminate errors and inefficiencies in the work process via repetition of tasks, and they could identify the best and most efficient work methods.

Obviously, law abidance leadership education with an emphasis on NSL appears to be a sensitive topic. As such, high-quality learning experience involving sensitive issues is essential to equip students with resilience they need in academic and professional environments where sensitive discourses inevitably arise. As Claire and Holden (2007) say:

"Learning how to deal with sensitive or controversial topics in a structured setting, through topics introduced into the classroom, can be a rehearsal for dealing with more immediate controversy in the playground, home or community. It is also a part of preparation for living in a democratic society where controversial topics are debated and discussed without recourse to violence." (p. 43).

Practically, it is expected that such learning experiences can enhance students' emotional handling and resilience when facing sensitive topics. According to Heath et al. (2017), "careful redirection of students' emotions might support students to develop new thinking about themselves, the world and about others" (p. 7), assisting students in developing vital emotional regulation abilities that they may use in their future careers. As such, it is necessary to decipher students' experiences of law abidance leadership education, such as their learning experience in the "Law-abiding Leadership" lecture in terms of whether they were satisfied with the content of the lecture, teacher performance as well as perceived benefits.

During the first and second semesters of the 2021/22 academic year, we successfully delivered the law abidance leadership lecture to the undergraduates and investigated lecture effectiveness and students' experiences through different research approaches. With reference to the quantitative findings in terms of students' subjective evaluation derived from the post-lecture survey based on roughly 70% of the students, results based on the two semesters (Semester 1: $N=890$; Semester 2: $N=914$) consistently showed that students generally held favorable opinions of the lecture content and benefits and were satisfied with their teacher's performance. The students believed that the lecture was conducive to their psychosocial competence and leadership development. In addition, the lecture enriched their knowledge about national security and NSL, and they were willing to be socially responsible leaders (Shek et al., 2022a, b). Similarly, the qualitative comments based on student focus group interviews ($N=52$) were also positive (Shek et al., 2023b). For example, students shared that "various educational activities and materials from the course helped me understand the basic function of the law, and cultivated my law-abiding habit and attitude", "the course enhanced my legal awareness", and "my critical thinking has been greatly improved, and my ability to view issues from multiple perspectives has been developed". These findings echoed the afore-mentioned positive quantitative results. Reflections of teachers teaching "Law-abiding Leadership" are consistent

with students' perceptions, suggesting the beneficial lecture impacts on students are acknowledged by both students and lecturers (Shek et al., 2022d, 2023a, c).

In spite of the good rating results elicited for the "Law-abiding Leadership" lecture in the past year (i.e., the 2021/22 academic year), replication of the results over time is necessary. Therefore, the authors conducted another round of evaluation for the lecture offered in a new academic year (i.e., the 2022/23 academic year). The styles of instruction and learning during the COVID-19 pandemic in previous academic years ranged from hybrid instruction (a blend of face-to-face instruction and synchronous online instruction) to purely online instruction. In the first semester of 2022/23 academic year, with the easing of the epidemic and the relaxation of epidemic prevention measures, the University resumed face-to-face teaching and learning, increasing direct interaction between teachers and students or amongst classmates. Silliman (2005) believed that the program related to national security law is best taught in an environment that enables a close interaction between the lecturer and students. Simply put, it will be easier to encourage fruitful and thought-provoking discussion and reflection on topics among classmates when there is better and more conformable teacher-student interaction in the classroom, particularly when some of the important socially acknowledged cases are utilized to underscore the fundamental principle of national security law. Meanwhile, the more intimate classroom dynamic can also be beneficial for teachers to adopt an attentively balanced and strictly non-political approach to guide the discussion (Silliman, 2005). That is, teachers should adopt a prudent and neutral approach, delineating only the applicable constitutional and legal provisions, and then allow students to draw their own conclusions. Nevertheless, it remains unknown that whether students would also perceive the "Law-abiding Leadership" lecture in a positive manner when it was taught in physical classrooms. Thus, there is a need to further understand students' experience in the face-to-face lecture, findings of which can be employed as a tool to replicate and verify the findings in previous studies.

Finally, to objectively assess the perception of students on the "Law-abiding Leadership", we need validated instruments. The prerequisite is especially important in the context of subjective outcome evaluation. Although we validated the measure used in this study in a previous study (Shek et al., 2022) supporting its factorial validity, there is a need to replicate the findings on the psychometric properties of the scale. In fact, researchers have formulated research questions on the psychometric properties of assessment tools in their studies (e.g., Dou et al., 2022; Li et al., 2021).

## The Present Study

The current study examined students' perceptions of the "Law-abiding Leadership" lecture offered in Semester 1 of the 2022/23 academic year via one post-lecture survey utilizing a 26-item evaluation scale (i.e., a subjective outcome evaluation scale) and an open-ended question. Using a post-lecture survey based on the subjective outcome evaluation approach can generate timely student feedback in terms of their satisfaction with the learning experience without placing high demands on data collection skills and resources. This approach is widely adopted in the higher education sector. As a replication study, the current research can be considered together

with earlier findings and provide an integrated picture on how students view national security education across a variety of teaching and learning contexts. The evaluation scale was created based on existing measurement scales of student satisfaction with the curriculum (Shek & Sun, 2014; Sun & Shek, 2014), and it has been validated and used in our previous research (Shek et al., 2022a). Conceptually, the 26 items are separated into three areas in terms of perceived lecture attributes, teachers' qualities, as well as students' appreciation of law abidance leadership. The three-factor structure showed good psychometric properties in an online teaching environment (Shek et al., 2022a). In this study, we attempted to offer more insights into the scale's psychometric characteristics and examine the views of students towards national security education by investigating the three research questions below.

RQ 1: What are the psychometric properties of the subjective outcome evaluation scale utilized in a face-to-face national security education curriculum? With reference to Shek et al. (2022a), we anticipated that the three-factor model (i.e., lecture attributes, teachers' qualities, and appreciation of law abidance leadership) would be supported in the entire sample and the two randomly selected subsamples (Hypothesis 1a). We also expected factorial invariance across the two randomly selected subsamples (Hypothesis 1b).

RQ 2: What are the students' perceptions of the law abidance leadership education curriculum, including lecture attributes, teachers' qualities, and appreciation of law abidance leadership? Based on Shek et al. (2022a, b), it was hypothesized that the respondents would have positive attitudes towards the three aspects of the law abidance leadership education curriculum (Hypothesis 2).

RQ 3: What are the students' subjective views on the law abidance leadership education curriculum revealed by the qualitative data? With reference to the earlier studies (Shek et al., 2022a), we expected that a significant proportion of the qualitative responses would be positive in general (Hypothesis 3).

## Methods

### Participants and Procedures

This study examined students' perceptions of the lecture attributes, teachers' qualities, and appreciation of law abidance after completing a face-to-face lecture on "Law-abiding Leadership". During Semester 1 of the 2022/23 academic year, a total of 1,285 students enrolled in the subject of "Tomorrow's Leaders", a compulsory course delivered to all Year-1 undergraduate students in a public university. All registered students were invited to participate in this study, and 985 students (76.7%) completed a post-lecture survey. These students came from the following eight faculties or schools, which included "Faculty of Construction and Environment", "Faculty of Engineering", "Faculty of Health and Social Sciences", "Faculty of Humanities", "Faculty of Science", "School of Design", "School of Fashion and Textiles", and "School of Hotel and Tourism Management". In order to keep the confidentiality and the anonymity of the participants, no sensitive personal data were collected. Before we launched this study, institutional ethics approval was obtained.

"Tomorrow's Leaders" has received recognition and affirmation from the local and international communities, including the "UGC Teaching Award" from the Hong Kong University Grants Committee in 2018, the "Silver Award (Ethical Leadership)" and the "Gold Award (Nurturing Student Well-Being and Purpose)" in the "QS Reimagine Education Awards" in 2017 and 2021, respectively. "Tomorrow's Leaders" has 13 lessons with a 3-hour lecture per week. It aims to promote university students' intra- and inter-personal abilities as well as citizenship and leadership that benefit them to "grow their relationships with the law by learning law-related values, attitudes and reasoning skills" (Naftali, 2022). This course also develops university students' abilities to have a beneficial impact on society and the country (Baeihaqi & Komalasari, 2021), and increases their capacity to control their emotions and be resilient in light of sensitive topics. The lecture on "Law-abiding Leadership" is one 3-hour lesson of the "Tomorrow's Leaders", consisting of several topics such as law-abiding leadership, the concept of national security as well as the Hong Kong National Security Law. This lecture aims to equip students with law-abiding leadership and socially responsible leadership by providing an overview of the background and provision of Hong Kong National Security Law and related issues.

## Measures

In this study, we invited students to fill out a post-lecture questionnaire with 26 items and an open-ended question on the overall perceptions of their learning experience, including their perceptions of lecture attributes, teachers' qualities, and appreciation of law abidance leadership. The instrument containing abovementioned three variables was validated in a previous study (Shek et al., 2022a) and has been applied to measuring students' satisfaction with law abidance leadership education by other evaluation studies (Shek et al., 2022a, b). A total of 11 items were employed to assess students' perceptions of the lecture attributes, such as "the design of this lecture was very good" and "the classroom atmosphere of this lecture was very pleasant." A total of 6 items were used to measure the teacher's qualities, such as "the lecturer had a good mastery of the lecture material" and "overall speaking, I have a very positive evaluation of the lecturer in this lecture." A total of 8 items were used to measure appreciation of law abidance leadership, such as "This lecture helps me understand the importance of law abidance in leadership" and "I will try my best to serve as a law-abiding citizen." One item was used to evaluate students' overall perceptions towards this lecture: "Overall speaking, I have a very positive evaluation of this lecture." Each item was assessed on a 6-point Likert scale from 1 (*Strongly Disagree*) *to* 6 (*Strongly Agree*). The Cronbach's alphas for insight of the lecture's qualities, teachers' performance, and appreciation of law abidance were 0.981, 0.971, and 0.979, respectively. Finally, students were invited to leave their comments on the lecture at the end of the questionnaire. A total of seven coders, consisting of three assistant professors (holding a doctor degree) and four research assistants (holding a master degree), coded the qualitative comments. Students' qualitative comments were categorized as positive, negative, neutral, and undecided. For example, participants' responses such as "useful", "helpful", "clear or easy to understand", "reasonable", and "consolidated and deepened my knowledge/understanding" were regarded as

positive narratives. A meeting was held after coding procedure to determine the codes which were not agreed by the researchers. Meanwhile, to guarantee the accuracy of findings, conventional translation and back-translation techniques were utilized for those citations used in this paper where the original responses were not in English. Finally, to assess the reliability of analyses, a postdoctoral fellow and a project assistant (with a master's degree) who had not been involved in the previous coding process were assigned to re-categorize 20 randomly selected responses. The inter-rater reliability reached a high level of 95%.

## Data Analysis Plan

Using Mplus 8.8 (Muthen & Muthen, 2017), Confirmatory Factor Analysis (CFA) was employed to assess the factorial structure of the post-lecture survey (i.e., subjective outcome evaluation form) using Robust Maximum Likelihood (MLR). To compare the goodness-of-fit for the one-factor model and the hypothesized three-factor model, a series of the goodness of fit indicators were adopted, including the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean squared residual (SRMR). The values of CFI and TLI greater than 0.90 indicate an acceptable fit model (Bentler, 2006); RMSEA less than 0.08 indicates a model with a satisfactory fit (Hu & Bentler, 1999); SRMR less than 0.10 indicates an acceptable fit model (Kline, 2016). The factor loading of each item should exceed 0.6 (Awang et al., 2015). In addition to measuring the validity of the construct, the average variance extracted (AVE) is used to evaluate the convergent validity of the scale with a value greater than 0.5 indicating adequate convergent validity, while the composite reliability (CR) is computed for the construct with a value greater than 0.7 indicating good reliability (Fornell & Larcker, 1981). Furthermore, both Cronbach's alpha and McDonald's omega are adopted to measure the scale's internal consistency (Ponterotto & Ruckdeschel, 2007).

With the confirmation of the factor model of the scale, we conducted a multi-group CFA (MGCFA) analysis to verify the measurement and structural invariance across the two randomly selected subsamples. The entire sample was separated into two subsamples randomly: Sample A with 493 participants and Sample B with 492 participants. For invariance testing, the baseline model with no equality constraints (configural model) was first performed across the two subsamples, followed by Model 2 (metric invariance) with the constraints of the factor loadings equally, Model 3 (scalar invariance) with the constraints of the item intercepts equally, Model 4 (error variance invariance) with the constraints of the error variances equally, Model 5 (factor variance invariance) with the constraints of factor variances equally, Model 6 (factor covariance invariance) with the constraints of factor covariance equally, and Model 7 (latent factor mean invariance) with the constraints of factor means equally (Vandenberg & Lance, 2000). ΔCFI≤0.01 (Cheung & Rensvold, 2002), ΔRMSEA≤0.015, and ΔSRMR≤0.010 (Chen, 2007) were adopted to indicate the invariance instead of chi-square difference tests due to its oversensitivity to the sample size. Regarding students' comments (i.e., the qualitative data), one-sample Chi-square analysis will be conducted to determine whether students equally hold positive, negative, or neutral attitudes towards the lecture.

**Table 1** Descriptive statistics and correlations among study variables (*n*=985)

|   |   | Mean | SD | 1 | 2 |
|---|---|------|-----|------|------|
| 1 | Perception of the lecture attributes | 4.94 | 1.05 | - | - |
| 2 | Appreciation of law abidance leadership | 5.08 | 1.02 | 0.89*** | - |
| 3 | Teachers' qualities | 5.16 | 0.92 | 0.85*** | 0.86*** |

*Note.* ***p<0.001

**Table 2** Confirmatory factor analysis (CFA) of the subjective outcome evaluation form

| Models | χ2 | df | CFI | TLI | RMSEA (90% CI) | SRMR |
|--------|------|-----|-------|-------|------------------------|-------|
| One-factor | 2557*** | 275 | 0.812 | 0.794 | 0.092 (0.089–0.095) | 0.048 |
| Three-factor | 1063*** | 272 | 0.935 | 0.928 | 0.054 (0.051–0.058) | 0.032 |

## Results

The descriptive statistics and relationships among the three study factors, namely the perceived lecture attributes, appreciation of law abidance leadership, and teachers' qualities are reported in Table 1. The inter-correlations between all subscales based on the factors were significant ($rs>0.85$, $ps<0.001$). The scale's values of Skewness and Kurtosis were below 3 and 10, respectively, satisfying the criteria for normality (Curran et al., 1996). The model fit indices of the subjective outcome evaluation form were reported in Table 2. Compared with the one-factor model, the three-factor model showed a better model fit: $\chi^2$ (272)=1063, CFI=0.935, TLI=0.928, RMSEA=0.054, and SRMR=0.032. The reliability and validity of the full scale as well as the factor loadings were reported in Table 3. The factor loadings of all items were greater than 0.60, ranging from 0.855 to 0.946 for perceived lecture attributes, from 0.872 to 0.956 for appreciation of law abidance leadership, and from 0.882 to 0.955 for teachers' qualities, respectively. The good convergent validity and reliability of the three factors was confirmed for the three-factor model, with AVEs ranging from 0.829 to 0.852 and CRs ranging from 0.972 to 0.982. Furthermore, all Cronbach's alphas and McDonald's omegas were larger than 0.97, suggesting good internal consistency for the entire scale and all subscales. Hypothesis 1a is well supported.

To check the measurement and structural invariance, the independent best-fitting models for the two randomly selected subsamples were established first. We discovered that the three-factor model was the best for subsample A: $\chi^2$ (272)=784, CFI=0.929, TLI=0.922, RMSEA=0.062, SRMR=0.033 and Subsample B: $\chi^2$ (272)=760, CFI=0.925, TLI=0.917, RMSEA=0.060, SRMR=0.038. Subsequently, seven successively restrictive invariance models were tested, indicating the measurement and structural invariance of the two subsamples according to ΔCFI≤0.01, ΔRMSEA≤0.015, and ΔSRMR≤0.010 (see Table 4). Hypothesis 1b is well supported.

As expected, most students responded favorably to how the lecture was organized and delivered (see Table 5). Specifically, in terms of lecture attributes, 91.31% of students agreed "the design of this lecture was very good", 92.37% agreed "there was much student participation in this lecture", and 94.09% agreed "there was much interaction between the lecturer and the students in this lecture." In addition, most

**Table 3** Reliability, validity, and factor loadings of the subjective outcome evaluation form ($n=985$)

| | Skewness | Kurtosis | Factor loading | Cron-bach's alpha | Mc-Don-ald's omega | Mean inter-item correlation | AVE | CR |
|---|---|---|---|---|---|---|---|---|
| Factor 1: Perception of the lecture attributes (11 items) | | | | 0.981 | 0.982 | 0.828 | 0.829 | 0.982 |
| Item 1 | -1.19 | 1.67 | 0.868 | | | | | |
| Item 2 | -1.31 | 1.99 | 0.899 | | | | | |
| Item 3 | -1.25 | 1.83 | 0.874 | | | | | |
| Item 4 | -1.44 | 2.85 | 0.855 | | | | | |
| Item 5 | -1.25 | 1.93 | 0.877 | | | | | |
| Item 6 | -1.29 | 1.74 | 0.917 | | | | | |
| Item 7 | -1.30 | 1.61 | 0.942 | | | | | |
| Item 8 | -1.23 | 1.39 | 0.946 | | | | | |
| Item 9 | -1.33 | 1.93 | 0.940 | | | | | |
| Item 10 | -1.25 | 1.51 | 0.928 | | | | | |
| Item 11 | -1.34 | 2.06 | 0.941 | | | | | |
| Factor 2: Appreciation of law abidance leadership (8 items) | | | | 0.979 | 0.979 | 0.851 | 0.850 | 0.978 |
| Item 12 | -1.45 | 2.67 | 0.911 | | | | | |
| Item 13 | -1.57 | 3.25 | 0.921 | | | | | |
| Item 14 | -1.56 | 2.97 | 0.956 | | | | | |
| Item 15 | -1.58 | 3.36 | 0.946 | | | | | |
| Item 16 | -1.57 | 2.94 | 0.950 | | | | | |
| Item 17 | -1.54 | 2.73 | 0.933 | | | | | |
| Item 18 | -1.66 | 3.84 | 0.873 | | | | | |
| Item 19 | -1.60 | 3.58 | 0.872 | | | | | |
| Factor 3: Teacher's qualities (6 items) | | | | 0.971 | 0.971 | 0.848 | 0.852 | 0.972 |
| Item 21 | -1.67 | 4.31 | 0.882 | | | | | |
| Item 22 | -1.61 | 4.00 | 0.938 | | | | | |
| Item 23 | -1.60 | 3.99 | 0.919 | | | | | |
| Item 24 | -1.64 | 4.10 | 0.955 | | | | | |
| Item 25 | -1.51 | 3.59 | 0.922 | | | | | |
| Item 26 | -1.63 | 4.06 | 0.920 | | | | | |
| Full Scale | | | | 0.988 | 0.989 | 0.776 | | |

students viewed the lecture as helpful to their "problem-solving ability" (89.08%), "personal development" (89.31%), and "the understanding of the importance of attributes of successful leaders" (90.96%). In terms of appreciation of law abidance leadership, 93.48% agreed "this lecture helps me understand the importance of law abidance in leadership", 93.98% agreed "this lecture helps me understand the concepts of national security", and 94.91% agreed "I understand that law abidance is important for the stability of a society." Moreover, 95.12% of the students viewed "this lecture helps me understand the offenses and penalties surrounding the National Security Law in Hong Kong", and 96.23% and 95.53% of students would do their utmost to be a law-abiding citizen and a socially responsible leader. As expected, most students had a very favorable assessment of the teacher's qualities, such as "having a good mastery of the lecture material" (97.05%), "using different meth-

**Table 4** Measurement and structural invariance across the two random selected samples

| Model no. | Model description | $\chi^2$ | $\Delta\chi^2$ | $df$ | $\Delta df$ | CFI | $\Delta$CFI | TLI | SRMR | RMSEA | RMSEA 90% CI | | $\Delta$RMSEA | $\Delta$SRMR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Lower | Upper | | |
| 0 | Baseline model | 1063*** | - | 272 | - | 0.935 | - | 0.928 | 0.032 | 0.054 | 0.051 | 0.058 | - | - |
| 0a | Baseline model (Subsample A) | 784*** | - | 272 | - | 0.929 | - | 0.922 | 0.033 | 0.062 | 0.057 | 0.067 | - | - |
| 0b | Baseline model (Subsample B) | 760*** | - | 272 | - | 0.925 | - | 0.917 | 0.038 | 0.060 | 0.055 | 0.066 | - | - |
| 1 | Configural invariance | 1545*** | - | 544 | - | 0.927 | - | 0.920 | 0.036 | 0.061 | 0.058 | 0.065 | - | - |
| 2 | Metric invariance | 1578*** | 33 | 566 | 22 | 0.926 | -0.001 | 0.922 | 0.043 | 0.060 | 0.057 | 0.064 | -0.001 | 0.007 |
| 3 | Scalar invariance | 1624*** | 46 | 588 | 22 | 0.925 | -0.001 | 0.923 | 0.044 | 0.060 | 0.056 | 0.063 | 0.000 | 0.001 |
| 4 | Error variance invariance | 1658*** | 34 | 613 | 25 | 0.924 | -0.001 | 0.926 | 0.046 | 0.059 | 0.055 | 0.062 | -0.001 | 0.002 |
| 5 | Factor variance invariance | 1661*** | 3 | 616 | 3 | 0.924 | 0.000 | 0.926 | 0.046 | 0.059 | 0.055 | 0.062 | 0.000 | 0.000 |
| 6 | Factor covariance invariance | 1666*** | 5 | 619 | 3 | 0.924 | 0.000 | 0.926 | 0.051 | 0.059 | 0.055 | 0.062 | 0.000 | 0.005 |
| 7 | Latent mean invariance | 1672*** | 6 | 622 | 3 | 0.924 | 0.000 | 0.926 | 0.052 | 0.059 | 0.055 | 0.062 | 0.000 | 0.001 |

*Notes*. Subsample A ($n=493$), subsample B ($n=492$)

ods to encourage students to learn" (96.53%), "promoting an atmosphere of mutual respect in the class" (96.82%), and "helping students understand the knowledge covered in the lecture" (96.53%). Hypothesis 2 was well supported.

Finally, to analyze whether students were equally likely to hold positive or negative/neutral views on the law-abiding leadership lecture, we conducted a one-sample Chi square test. Among all the narratives shared by the participants, there were a few negative or neutral ones ($N=15$) while most of them were positive ($N=94$). The Chi-Square value was 57.26 ($p<0.001$), indicating that there were more positive responses than negative/neutral responses. As shown in Table 6, most students had positive attitudes towards the lecture attributes (e.g., "gain useful/helpful knowledge"), teachers' qualities (e.g., "appreciate teacher"), and law abidance (e.g., "deeply comprehend the meaning and importance of law abidance in leadership or to be socially responsible leaders"). Besides, most students bore positive attitudes towards national security and the NSL. Overall, the qualitative picture based on students' responses to their learning experience about this lecture was positive, which achieved our expectations. Besides, the positive qualitative responses echoed the quantitative responses which further reinforces the quantitative findings. Hypothesis 3 is well supported.

## Discussion

There are several observations that deserve attention. First, due to the COVID-19 outbreak, more educators have to adopt online instruction. However, with the easing of the epidemic and the relaxation of epidemic prevention measures, teaching and learning have been resumed to a face-to-face mode. Consequently, it is essential to investigate the perceived value of the national security education delivered via a face-to-face mode with an increasing amount of direct interaction between teachers and students or amongst classmates, although the previous studies indicated that the relevant lessons were favored by students under either an online or hybrid delivery mode (Shek et al., 2022a, b). Thus, to fill the gap in the evaluation of face-to-face lectures on law abidance leadership research in Hong Kong, this study adopted a commonly used scientific methodology (i.e., the client satisfaction approach) to analyze students' perceptions of the general lecture delivery and specific features linked to face-to-face lectures of national security education in the Chinese context. Since it is anticipated that students' educational experiences would affect their academic results, the student feedback survey is a common strategy to assess academic achievements. Eom et al. (2006) found that among all predictors, only instructor feedback and learning styles showed significant relationships with students' perceptions of learning achievements and their satisfaction with school courses. It is implied that lecturers' attributes, including both teaching methodology and personal characteristics, have significant impacts on effective learning outcomes (Aregbeyen, 2010). Richardson and Price (2003) also found a favorable relationship between students' perceived learning experience and their grade of coursework. Moreover, Lizzio et al. (2002) argued that students' learning attitudes and outcomes were directly and indirectly affected by the perceptions of a good teaching environment including their feelings about teachers' interactive competencies and a sense of mutual responsiveness.

**Table 5** Students' responses in the subjective outcome evaluation form (*n*=985)

| Questionnaire Item | | Mean | Positive response rate % |
|---|---|---|---|
| | Perception of Lecture Attributes | 4.94 | 91.19% |
| Q1 | The design of this lecture was very good. | 4.94 | 91.31% |
| Q2 | The classroom atmosphere of this lecture was very pleasant. | 4.96 | 91.96% |
| Q3 | There was much peer interaction amongst the students in this lecture. | 4.94 | 91.22% |
| Q4 | There was much interaction between the lecturer and the students in this lecture. | 5.05 | 94.09% |
| Q5 | There was much student participation in this lecture. | 4.94 | 92.37% |
| Q6 | There were many opportunities for reflection in this lecture. | 4.94 | 90.41% |
| Q7 | This lecture is helpful to my personal development. | 4.90 | 89.31% |
| Q8 | This lecture has improved my problem-solving ability. | 4.88 | 89.08% |
| Q9 | This lecture has improved my understanding of the importance of attributes of successful leaders (e.g., critical thinking, moral competence, law abidance, etc.). | 4.96 | 90.96% |
| Q10 | This lecture has improved my interpersonal communication skills. | 4.87 | 89.43% |
| Q11 | This lecture has improved my critical thinking. | 4.94 | 91.57% |
| | Recognition of Law Abidance Leadership | 5.08 | 94.45% |
| Q12 | This lecture helps me understand the importance of law abidance in leadership. | 5.03 | 93.48% |
| Q13 | I understand that law abidance is important for the stability of a society. | 5.08 | 94.91% |
| Q14 | This lecture helps me understand the concepts of national security. | 5.07 | 93.98% |
| Q15 | This lecture helps me understand the offenses and penalties surrounding the National Security Law in Hong Kong. | 5.09 | 95.12% |
| Q16 | This lecture helps me understand the importance of implementing the National Security Law in Hong Kong. | 5.03 | 93.39% |
| Q17 | This lecture helps me clarify some myths related to National Security Law in Hong Kong. | 5.02 | 92.97% |
| Q18 | I will try my best to serve as a law-abiding citizen. | 5.17 | 96.23% |
| Q19 | I will try my best to serve as a socially responsible leader. | 5.13 | 95.53% |
| | Overall Evaluation of the Lecture | 5.02 | 92.26% |
| Q20 | Overall speaking, I have a very positive evaluation of this lecture. | 5.02 | 92.26% |
| | Perception of Teacher's Qualities | 5.16 | 96.71% |
| Q21 | The lecturer had a good mastery of the lecture material. | 5.18 | 97.05% |
| Q22 | The lecturer used different methods to encourage students to learn. | 5.15 | 96.53% |
| Q23 | The lecturer was able to promote an atmosphere of mutual respect in the class. | 5.16 | 96.82% |
| Q24 | The lecturer was able to help students understand the knowledge covered in the lecture. | 5.17 | 96.53% |
| Q25 | The lecturer was able to effectively take care of all students. | 5.12 | 96.42% |
| Q26 | Overall speaking, I have a very positive evaluation of the lecturer in this lecture. | 5.19 | 96.93% |

*Notes.* All items were rated on a 6-point Likert scale (1=Strongly Disagree; 2=Disagree; 3=Slightly Disagree; 4=Slightly Agree; 5=Agree; 6=Strongly Agree). Scores above 4 indicate positive responses

**Table 6** Qualitative responses of the students on the lecture of law abidance leadership

| Qualitative responses | |
|---|---|
| **Positive responses (94 responses)** | |
| 'General positive comments' category (17 responses) | #Very good. #Good. #Good. #Good. #better than imagine. #Good. #This lecture was good. As an international student, I enjoyed the lecture and understand it clearly. #Good. #Good. #Great learning. #Good. #very good, and it is beneficial. #Nice class. #Good. #Positive. #Safe. #I agree. |
| 'Appreciate teacher' category (8 responses) | #I love the teacher! #The teacher is nice. #I don't like the content but I appreciate the teacher trying her best to teach us. #teacher is good) #The teacher makes even boring topics interesting. #I am immensely grateful to the lecturer for trying his best to make us understand the importance of the situation and for ensuring that every student had an opportunity to voice their thoughts through the effective utilisation of in-class discussions. #Our lecturer made the lecture highly interactive and engaging. #The teacher is a really good lecturer! |
| 'Useful/helpful knowledge' category (64 responses) | |
| 'General knowledge' sub-category (5 responses) | #I have learnt a lot from the class. #learn a lot. # I learned reform revolution and so on. #learn a lot. #I have learned a lot from this lecture. |
| 'Law abidance and law abidance leadership' sub-category (10 responses) | #The importance of law-abiding leadership such as maintaining social harmony. #Good. I agree with law abidance is very important for the social stability. #I have learnt about the importance of obeying the laws of HK and also the possible consequences of disobeying the law. #Something about law-abidance. Law-abidance as a leadership quality. #A person take social responsibility is that they don't harm others and also do something good to society. #I learnt the significance of law-abiding. #Learn the importance of law to leaders in this class. #I understood the importance of law-abidance in leadership and its significance in our society. This lecture also further emphasised the need for us, the future generation, to be good law-abiding citizens and socially responsible leaders. #I learned a lot about the meaning of law-abidance. #I have known the law-abiding leadership, which are important to our own personal development. |
| 'Understanding and importance of national security' sub-category (6 responses) | #I have learned what is national security. #I have learnt more concepts about national security and its importance. #The national security and the self-thinking. #I grasped the meanings of key concepts such as National Security and how it impacts the nation and the day-to-day lives of most of its citizens. #Many knowledge about national security. #The importance of national security and the need for a national security law, some things still need to be done. |
| 'General concepts of law/HK law' sub-category (13 responses) | #I learned more about the law. #More about NSL and HK law. #I'm more familiar with HK's law. #I learned the law. #I learned about the evolution of Hong Kong law and know the penalties of against them. #a lot of things about the law. #I have learnt the bottom-line of the laws. #law. #Basic law. #Learned about related laws of Hong Kong. #Laws from all the World. #I learned a lot about the law in Hong Kong. #learned the importance and meaning of the law. |

**Table 6** (continued)

| Qualitative responses | |
|---|---|
| 'NSL & HKNSL' sub-category (36 responses) | #In today's lecture I obtain a comprehensive understanding about the NSL. I didn't know much about what NSL was before, but through this lesson I understood the meaning and role of NSL. The reason why NSL society is stable, people can live in a safe environment, and we can study in school and participate in various activities. At the same time, the NSL also guarantees people's interests and power. #I learned some important aspects about National Security Law which is important for me while I am staying at Hong Kong. #NSL is important. #I have learnt how does NSL works in Hong Kong and other places. #More about NSL and HK law. I have a deeper and clearer understanding of the National Security Law. #This lesson helped me to understand the offences and penalties involved in the National Security Law. #The basic knowledge and protections of National Security Law. #NSL protect our countries. #I learned the content of NSL. #National security law is crucial to the prosperity of the country. #Very useful as I can learn more about the actual benefits of NSL. #I learned about the national security law of Hong Kong. #I can deeply understand the NSL. #Something about National Security Law in HKSAR. #I learned about the evolution of Hong Kong law and know the penalties of against them. #The concept and content of NSL. #I learnt what NSL is. #Understanding the importance of implementing NSL in Hong Kong. #The importance of citizens upholding and complying with NSL. #I have a deeper and more specific understanding of NSL. #Learned more about national security laws. #National security law. #Learned the general content and historical origins of the National Security Law. #Gave me a clear understanding of NSL. #NSL is important. #For impressed me the most is about the Definition and Function of law in this lecture, such as NSL (National Security Law). #Understanding the scope of enforcement of NSL. #understood what is NSL. #National security law. #the need for a national security law. #Familiarized with the NSL of Hong Kong. #Deepen the understanding of NSL. #understood the NSL. #NSL. #I have known NSL. |
| 'Chinese history and culture' sub-category (11 responses) | #some Chinese history. #a lot of knowledge about history. #I have learnt the modern history of China. #Chinese history. #Learn more history about China. #Learn more about history and culture. #Learned about Chinese history. #I also learned a lot about our country's history. #learned more Chinese history. #Feeling the weight of history. #Familiarized with Chinese History. |
| 'Sense of belonging' sub-category (2 responses) | #increase the sense of national identity. #Finding a sense of family identity in Hong Kong. |
| 'Self-improvement' sub-category (4 responses) | #Analyse the problem from different perspectives. #One of the things I learned is how to face the negative thing and how to accept negative. #self-thinking. #I have known the law-abiding leadership and NSL, which are important to our own personal development. |
| 'Good classroom atmosphere and interactive activities' category (8 responses) | #Luck draw is good. #Very happy to get the champion of the activity. Very innovative course with lots of interaction. #I communicated with you and drew pictures full of ideas and thoughts, which made me feel interesting and meaningful. #the quiz session can help us understand the NSL in an interesting way. #Using Quiz makes me more enjoy the lesson. #every student had an opportunity to voice their thoughts through the effective utilisation of in-class discussions. #the lesson was very insightful and brought many interesting ideas for us to reflect on after it was over. |
| 'Love China and Hong Kong' category (3 responses) | #Love China more. #inspiring me to work harder and make our nation stronger! #Strong patriotic beliefs and great rewards. |

**Table 6** (continued)

| Qualitative responses | |
|---|---|
| **Neutral/unde-cided responses (4 responses)** | #The time lag affected me to submit the quiz answer! SORRY! #I am not good enough. #ganbadei. #Integrity. |
| **Negative responses (11 responses)** | #A great lecture that causes conflicts between students, nice one PolyU! #Please don't just say that other countries or regions also have NSL to some extent, how can it be compared altogether as they have totally different constitutional law and political structure, how and why the other regions have such law are utterly different from HK. In addition, the teacher failed to ease out the tension between students with different point of view and to give them sufficient space to discussion. #I believe this lecture has caused some students to have the tendency to rebel and disrespect the class. #Political prisoners are not criminals. #I don't like the content but I appreciate Betty trying her best to teach us. #What is said on paper is quite different from what is actually implemented. #I LEARN NOTHING OF NSL^_^ #Waste my time. #brave new Hong Kong. #It's just not on you Ginger, it's about the curriculum. #I don't believe it's very meaningful for us international students to learn this law so call National Security Law. Most of my classmates didn't listen to this lecture. |
| **Improvements (2 responses)** | #shorten the time. #More games pls. |

*Notes.* Students responded according to the following instruction: "Please write down your comments about this lecture (e.g., what you have learned in this lecture). If there is no comment, please write 'NIL'".

According to confirmatory factor analyses, three dimensions were intrinsic to the 26-item scale used to measure students' opinions of the lecture: how they perceived the lecture attributes, how they appreciated teachers' qualities, and how they valued law abidance leadership. Moreover, the factors were consistent between two random subsamples. Accordingly, the current study added to the scientific literature of the law-related education via a face-to-face mode, responding to the request for establishing new subjective outcome measures in a Chinese setting (Shek et al., 2021).

Second, the current study showed that most respondents had favorable perceptions of law abidance leadership education. In terms of the lecture's qualities, students reported positive evaluations of the content and design of the lecture. In addition, the class atmosphere was also praised, with high peer interaction among the students and good instructor-student interaction. Moreover, students felt a high sense of participation throughout the process. For the benefits of the lecture, students perceived many gains, such as opportunities for reflection, personal growth, problem-solving capability, understanding of successful leader traits, interpersonal communication skills and critical thinking. Regarding teachers' qualities, students generally recognized that their teachers were knowledgeable in the lecture material, used diverse strategies to encourage students to study, were able to promote the class atmosphere, able to enrich students' understanding of the lecture knowledge, and cared for students in an effective manner. For law abidance leadership education, it was perceived as capable of promoting students' knowledge of the significance of law abidance, society stability, national security, the Hong Kong NSL. Besides, students also concurred that the lecture would help them become law-abiding citizens and socially responsible leaders.

In line with previous studies (Shek et al., 2022a), available evidence confirmed students' support for law abidance education and refuted the common skepticism that NSL education is "brain-washing" in nature. For students' feedback on the lecture, most of the students reported positive views, which were also consistent with previous findings (Shek et al., 2022a, b). The law abidance education was regarded as of high quality, informative, important, and beneficial in assisting students in comprehending the contents and value of national security and Hong Kong NSL, which contributes to their quality of life (i.e., enhanced knowledge and positive learning experiences). Although few students did not enjoy the content, they still appreciated the lecture. Those negative reviews also provided us a good pointer for refining the pedagogy.

In the previous study based on focus group interview data collected from 52 students (Shek et al., 2023b), participants viewed the lecture as beneficial for fostering their law-abiding leadership, social responsibility, and overall personal development. Additionally, students highly evaluated teacher performance and teacher-student interaction. Students reported, for instance, that teachers were not only well-prepared for the lecture material, but also motivating, caring for, and respecting their students during class. This was also consistent with the findings of three other studies that analyzed teachers' reflections on the preparation and delivery of this lecture (Shek et al., 2022d, 2023a, c). We analyzed the views of six, eight and nine teachers after Semesters 1 and 2 of the 2021/22 academic year (hybrid mode) and Semester 1 of the 2022/23 academic year (face-to-face mode), respectively. Teachers shared that they exerted great effort in preparing course content and designing interactive activities, such as psychical and mental rehearsal and mock teaching, to ensure the delivery of the lecture went smoothly. Regarding the effectiveness of the lecture, many teachers noted that students were cooperative and responsive, and their participation in class discussions demonstrated that they had gained a more profound comprehension of the NSL, national security, and law-abiding leadership.

Current findings have shown that the lecture under examination successfully increased students' knowledge of NSL and fostered their positive attitudes towards law-abiding leadership. These align with previous evaluation studies on the same lecture (Shek et al., 2022a, b, d, 2023a, b, c). Using different research methods and samples, two quantitative studies investigated students' perceptions on lectures (e.g., design and class attributes, teacher qualities, law-abiding leadership content, and benefits of the lecture) delivered via HyFlex and online teaching modes (Shek et al., 2022a, b); one focus group study investigated the perspective of the students towards the lecture (including content, arrangement, teacher's performance, learning experience, perceived benefits, and need for law abidance leadership education) (Shek et al., 2023b); and three qualitative studies were based on teachers' reflection of their teaching experience in law abidance leadership curriculum (Shek et al., 2022d, 2023a, c). Triangulating findings using qualitative and quantitative methods from different samples ensure the comprehensiveness of data and identifies potential similarities and differences between qualitative and quantitative data (Bekhet & Zauszniewski, 2012). For example, Goldie et al. (2000) assessed convergence between the comments of learners and instructors to evaluate course effectiveness through survey and interview data. Regarding our longitudinal evaluations of law abidance education, it

is notable that students' interview and survey responses supported teachers' in-class observations. Observation is considered "a type of data triangulation used to substantiate the research findings because observers study the subjective factors objectively" (Fraenkel & Wallen, 2003, p. 453). Accordingly, these results indicated that the students' general positive perceptions of the lecture resemble across various samples, data collection strategies, and teaching modes, demonstrating robustness of findings and measurement and effectiveness of the lecture.

Third, from the perspective of replication, the current results echoed the findings of Shek et al. (2022a) and Shek et al. (2022b) in a fresh sample of students who were attending the lecture with different modes, such as online or HyFlex teaching mode at another time. The quantitative findings of the previous two researches conducted in the 2021/22 academic year ($N=1,804$) demonstrated students' general positive feedback on the lecture via hybrid mode, including the lecture content, curriculum design and benefits for their personal development; and they agreed that the subject enhanced their understanding about law abidance citizenship, the connotation of national security, and the significance of Hong Kong NSL. Again, replicated results reaffirmed the efficiency of national security education. Replication is crucial to the social sciences. At present, the validity of social science research is being called into question because published findings have failed to be replicated (Shek et al., 2022a). Stevens (2017) also indicated that "because of the emphasis on novelty, although science depends on replication, replication studies are quite rare" (p. 1). Therefore, this study served as a humble endeavor to replicate previous studies related to law-related education. It triangulated the previous studies, which employed different research methods and samples.

## Implications and Limitations

As the university era is an important turning point in students' lives, they are expected to demonstrate personal qualities that can lead society towards a more positive path, rather than just success in academics (Zou et al., 2022). As tomorrow's leaders, they are expected to demonstrate leadership qualities including law abidance and a sense of social responsibility, which are essential components of quality of life. While teaching law abidance leadership with reference to Hong Kong NSL has imperative educational and social significance, it is also a politically sensitive topic. Heath and her colleagues (Heath et al., 2017) remarked that "addressing sensitive content is a professional responsibility for teachers, disciplines, and universities" (p. 5). It is widely admitted that teaching such a sensitive topic is not easy for teachers (Lowe & Jones, 2010). Bara et al. (2014) even indicated that academic staff in European higher education were pessimistic about national and law-related education. As the matter is politically sensitive, it is believed that lecturers should own professional competency to address controversial issues, because teaching sensitive materials may impose detrimental effects on both students' and lecturers' well-being (Heath et al., 2017). In this case, evaluation is an important strategy in checking the effectiveness of the pedagogy, teaching process, and course benefits as well as shaping our understanding of students' responses. The present findings suggest that educational programs

on politically sensitive topics can be well received by students with well-designed content, quality delivery and educational benefits. Together with previous findings, it appears to be in contrast with the myth that Hong Kong youths are reluctant to receive national security education (Shek et al., 2022b).

In addition, our findings further dispelled the rumor of current lecture being "brainwashing." Instead of showing negative emotions and evaluations, students were overall satisfied with their learning experiences, reflecting that the arguments offered during the lectures were acceptable to students and that current lecture did not compel students to accept information that did not make sense to them. In fact, the lectures mentioned our stance that we strongly recommend students to abide by the law, but we cannot intervene in an individual student's thought. Also, it is noteworthy that we have regularly conducted curriculum revamping and teacher training each semester for continuous improvement in the implementation of the law abidance leadership education lecture. This may contribute a lot to the success of our law abidance leadership education.

Despite the positive findings, several limitations of the study are noted. First, because only around three-quarters of the students participated in the post-lecture evaluation, we should exercise caution about the generalizability of the findings. Second, we only collected students' subjective perception on the lecture. The course effectiveness should be verified through other evaluation strategies, especially those assessing students' changes after taking the course with reference to a comparison group (or control group) who does not. Third, although the majority of students displayed positive feedback, the mechanisms underlying their positive feelings are not clear. Future evaluation studies can collect more qualitative data through different approaches (e.g., individual or group focus interviews and reflective journals) to help gain an in-depth understanding of students' learning experience. Fourth, there is also a need to understand teachers' views and experience. Although we have collected their reflection during online teaching (Shek et al., 2022d, 2023c), there might be different insights in face-to-face teaching. Finally, as we do not know what factors may contribute to students' positive learning experience, future studies will certainly benefit from investigating potential antecedents, such as student engagement, interaction in the class, peer influence, and teacher support.

## Conclusion

This study underscored students' positive feedback on a 3-hour face-to-face "Law-abiding Leadership" lecture incorporated in law abidance leadership education lecture for undergraduate students at a public university in Hong Kong. Findings based on data collected from 985 students using a post-lecture survey indicated that most students had favorable learning experiences in the subject in terms of satisfaction with lecture attributes and teachers' qualities as well as appreciation of law abidance leadership. These results triangulated prior findings obtained in online and hybrid teaching (Shek et al., 2022a, b) and provided further evidence for the effectiveness of national security education in Hong Kong.

## Declarations

**Institutional Review Board Statement** This study was conducted with the approval of the ethics review from the Institutional Review Board (and its Delegate) at The Hong Kong Polytechnic University.

**Informed Consent** Informed consent was obtained from all subjects involved in the study.

**Competing Interests** The authors declare no conflict of interest.

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