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Edutainment: Role-Playing versus Serious Gaming in Planning Education

Dorina Pojani[1] and **Roberto Rocco[2]**

Abstract

This exploratory study assesses the utility, in terms of learning and conceptualizing planning, of a role-playing exercise (the Great Planning Game [GPG]) and a serious game (Polis PowerPlays [PPP]) employed in a planning theory course offered at The University of Queensland in Australia. The study reveals that role-playing and serious gaming are equally engaging and help planning students learn and embody different roles while having fun. No great differences can be discerned in terms of learning effectiveness. With regard to teaching style, the GPG is more passive and tends to encourage collaboration, whereas the PPP is more dynamic and fosters competition. Both activities help students discover aspects of planning—and planning stakeholders—which they may not have considered before. Most participating students appear to regard planning as a pluralist pursuit. Communication and public participation are viewed as central to planning processes. However, traces of incrementalism and rationality are also present. While students believe in equity planning (i.e., advocacy from within the system), radical social justice approaches that challenge the status quo are notably absent. Overall, the authors conclude that these activities cannot fully replace guided and structured instruction but, as "whole task practices," are a desirable complement to direct instruction.

Introduction

Edutainment denotes classroom materials, media, and activities that are intended to be both educational and enjoyable. The term emerged in the 1980s as a portmanteau of "education" and "entertainment." In some cases, it is used in a critical manner to denote slipping standards in education. Skeptics charge that studying cannot be as painless as playing a game, and that traditional lectures should not be "transformed into congenial adjuncts of show business" (Postman 1985). However, there can be learning value in edutainment approaches such as role-playing and serious gaming.

> Developmental psychologist Jean Piaget described two modes of learning: "assimilation" and "accommodation." In assimilation, [students] figuratively "fill in" their mental map of their world, while in accommodation, they figuratively change that mental map, expand or alter it to fit their new perceptions. Both processes are complementary and concurrent, but different types of learning tend to emphasize one or the other mode. (Blatner 2009, 1)

Assimilation requires rote memorization while the skills needed for accommodation must be "exercised, practiced, and learned in a process of interaction, risk-taking, self-expression, feedback, encouragement" (Blatner 2009, 1). Assimilative learning is remarkably easy to forget, while

accommodative type of learning is more likely to be retained (Blatner 2009).

Role-playing and serious gaming, as employed in higher education, are thought to encourage accommodation, intrinsic motivation, and situated learning (Mouaheb et al. 2012). They also teach the types of skills valued in the twenty-first century, such as problem-solving, teamwork, and negotiation (Ulicsak and Wright 2010). Perhaps, most importantly, they are enormously popular with students due to the entertainment factor (Clark 2007). As such, they are increasingly common educational tools in planning programs and other disciplines of study which involve intense communication and/or negotiation, such as nursing, psychotherapy, law, and business. They are especially relevant in communicative modes of planning (Healey 1996).

This exploratory study assesses the utility, in terms of learning and conceptualizing planning, of two such activities

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employed during a planning theory course. The first is a role-playing exercise, called the Great Planning Game (GPG), which was developed by one of the authors (Rocco and Rooij 2018). The other activity is an analogue (non-digital) serious game, called Polis PowerPlays (PPP), which is currently being developed by the other author in collaboration with a game design team (PPP 2018). A more detailed description of each activity follows later on. Conceptually, both activities consider planning as a pluralist pursuit, in the sense that its values, truth, and morality exist in relation to stakeholder groups, local society, culture, and historical context, and are not absolute. The GPG is "not scorable," whereas PPP is "scorable."

The first objective of this study is to determine whether in planning courses gaming is more effective than role-playing or whether the two yield more or less the same results in terms of educational outcomes. Do these activities help students to better understand the content of planning theory? This evaluation is important because developing a serious game is much costlier in terms of time and resources, while role-playing is an inexpensive activity that requires a modest investment outside the classroom. More generally, it is worthwhile to evaluate the usefulness of incorporating class activities such as these in planning theory courses, which can otherwise be excessively dry and reading-heavy.

Prior to proceeding to the empirical study, the application of role-playing and serious gaming in higher education settings is discussed below.

Background: Role-Playing and Serious Gaming in Higher Education

Role-playing is, in a sense, a rehearsal. It enables student participants to reflect on the way they might act various possible roles in their professional lives so as to gain practice in the various aspects of the profession. Role-playing can help students "become more interested and involved, not only learning about the material, but learning also to integrate the knowledge in action, by addressing problems, exploring alternatives, and seeking novel and creative solutions" (Blatner 2009, 5). As such, role-playing is a good way to "develop the skills of initiative, communication, problem-solving, self-awareness, and working cooperatively in teams" (Blatner 2009, 5). "One aspect of role-playing is that of diagnosis or assessment—a test of how [professionals] would act when situated in an imagined or pretend problematic situation" (Blatner 2009, 2).

> Role playing uses dramatic devices such as having the players make "asides," comments to the audience that the other characters have to pretend they haven't heard; this allows us to reveal what we think but are not able to say. Another dramatic device, role reversal, involves the players changing parts so they can begin to empathize with the other's point of view, even if they don't agree. Speaking

from different parts of each role helps people become more conscious of their ambivalence. These sociodramatic techniques facilitate the degrees of self-expression and, with reflection, thereby deepen the insight obtained for both players and audience. (Blatner 2009, 3)

Similarly, "serious games have an explicit and carefully thought-out educational purpose and are not intended to be played primarily for amusement" (Abt, cited in Ulicsak and Wright 2010, 24). They incorporate all the elements of role-playing but add an element of challenge and curiosity generated by the unpredictability of the outcome (the final scores). The imagination and fantasy involved in a game shelter players from everyday life. As in role-playing, during a session, students exist in a fictional context in which they can experiment. While gaming can be very competitive, if it is not tied to course scores, it can reduce the anxiety associated with the learning process and allow students to acquire skills more spontaneously. Any errors are less likely to be seen as failures but rather as essential components of the game (Mouaheb et al. 2012).

The empirical evidence on the learning advantages of role-playing and serious gaming over traditional, well-designed instructional platforms, such as lectures, is mixed (Clark 2007). Designing ways to measure student learning during these activities is notoriously difficult because of their open-ended nature, which may not involve testing or assessment of students. The learning outcomes are likely to depend as much upon an appropriate pedagogy and the integration of content into the activity as upon the underlying game mechanics (Ulicsak and Wright 2010).

Method

Theoretical Foundation

In the heyday of the rational-comprehensive model, planning theory was more inclined toward moral absolutism. Society was conceived as a reified object that could be scientifically described and manipulated. Some things were "always right" and some things were "always wrong" for all people and places. High modernist figures such as Le Corbusier and Robert Moses envisioned a "sweeping, rational engineering of all aspects of social life in order to improve the human condition" (Scott 1998, 88). Planning processes were presented as value-neutral. They implied nearly perfect knowledge of all the facts and factors in a given situation, and nearly total agreement on a set of objectives. It was assumed that planners had the ability to conceive all potential courses of action, and predict all the consequences of those (Brooks 2002).

By contrast, post-modern planning paradigms are skeptical about any absolutist (and thereby authoritarian) discourse (Scott 1998). Pluralism (or relativism) is a key feature in the contemporary understanding of planning. Planners accept that their goals might be inappropriate and not endorsed by

all major stakeholders. Planning processes embody ambiguity regarding ends and boundaries, diversity of values and opinions, tolerance of other cultures (or subcultures), and uncertainty about the future. Planning generates outcomes that are shaped by political power and influence, and which affect individuals and groups differentially (Brooks 2002).

In line with this understanding, the role play and serious game examined in this study conceptualize planning as a relativist activity, in which different groups vie to gain ground on the public agenda and reach their own objectives. To reiterate, the study seeks to determine whether in planning courses gaming is more effective than role-playing in helping students to better understand the content of planning theory, or whether the two yield more or less the same results in terms of educational outcomes.

Data and Analysis

The data for this study consist of materials (recordings, writings, and drawings) produced while running the GPG and PPP in a planning theory course at The University of Queensland in Australia.[1]

The planning theory course in which the activities are carried out lasts one semester. The course reviews the history of planning since the Industrial Revolution. The various ideologies that have underpinned and shaped planning are covered (e.g., Marxism vs. neoliberalism), and the centralized-rational planning model is contrasted to more recent paradigms, such as advocacy, strategy, feminism, and communication. Then, the sustainability paradigm is unpacked, with an eye to uncovering its underlying tensions and contradictions. Furthermore, the course explores the future directions of planning theory: feminism, indigenous planning, development, globalization, and technology. Finally, the course focuses on professional ethics—arguably a timeless topic in planning. Overall, the course seeks to sharpen students' critical thinking skills, which are in high demand among employers (Pojani et al. 2018).

A brief overview of the GPG and PPP, and the data derived therefrom, follows.

During a GPG session, students take turns debating about a real-world development proposed in a local neighborhood. The purpose of the activity is to familiarize students with the roles of planners in planning practice, to encourage students to discuss these roles and the values attached to them, and to lead students to think about tools they might use while performing these roles. After splitting into groups of five or six, students argue in favor or against the selected development from different perspectives anchored in different planning traditions—that is, different planning roles (Figure 1A). These planning roles are inspired by Sehested's (2009) research-based formulations of planning roles and enriched by Nadin and Stead's (2008) theoretical framework for comparative planning studies. After deliberating, one or two speakers per group present, representing the position of their

team. Students are instructed to cover the following during presentations: define their group's position in the process; list the main knowledge, skills, and values necessary to fulfill the assigned task; define who the actors involved are and make a diagram showing their relationships (e.g., user groups, residents, city councils, urban design firms, local businesses, and developers); suggest a simple strategy to resolve the planning problem at hand; and suggest one tool to deal with communication and achieve consensus.

PPP is a simulation of a real-world site planning process. It is designed to help students experience the fraught negotiation that occurs among various actors involved in planning (developers, public sector planners, advocacies, community groups, politicians, etc.). The concept is similar to the GPG except that a "game" element is added: participants receive scores based on how effectively they perform their roles and achieve the targets set for their group. The targets can be building heights, parking spaces, bicycle lanes, park space, and the like. The game "currency" includes "funding" and "support." PPP employs too many game cards to include all here but an example is shown in Figure 1B. At the start of the game, student groups assemble at their tables and familiarize themselves with a given scenario. They assess their goals and plan how to bargain with other players to achieve their targets. Then, at a central table the "developers" group announces a planned project. All groups return to their tables and discuss the proposal internally, in relation to their group's position. Negotiation begins between groups. Players leave their tables and trade resources with others to hit their targets. Once negotiations are complete, players regroup at the central table to work out what the outcomes are. The resources are tallied by the "planners" group, and announced. In the second round, a "complexity" is introduced which modifies groups' targets and resources, and all phases are repeated.

In two recent years, the contents of students' presentations and illustrations were recorded, and feedback from participating students was sought.[2] Students self-assessed their understanding of the activity. In both cases, the participants were senior undergraduate students (about 50 in each cohort). The activities took place once most core lectures were delivered, and each lasted two hours. No assessment took place but students were required to participate; this setup allowed for comparable conditions. The qualitative data thus obtained were analyzed jointly. The analysis, which proceeded manually, was guided by grounded theory, an inductive methodology typically used to generate themes directly from the research data. The focus of the analysis was not on students' opinions about particular development proposals per se, but rather on the learning outcomes of the two class activities and on students' conceptualizations of planning.

Findings

The research questions are explored below. The first section delves into students' conceptualizations of planning—and
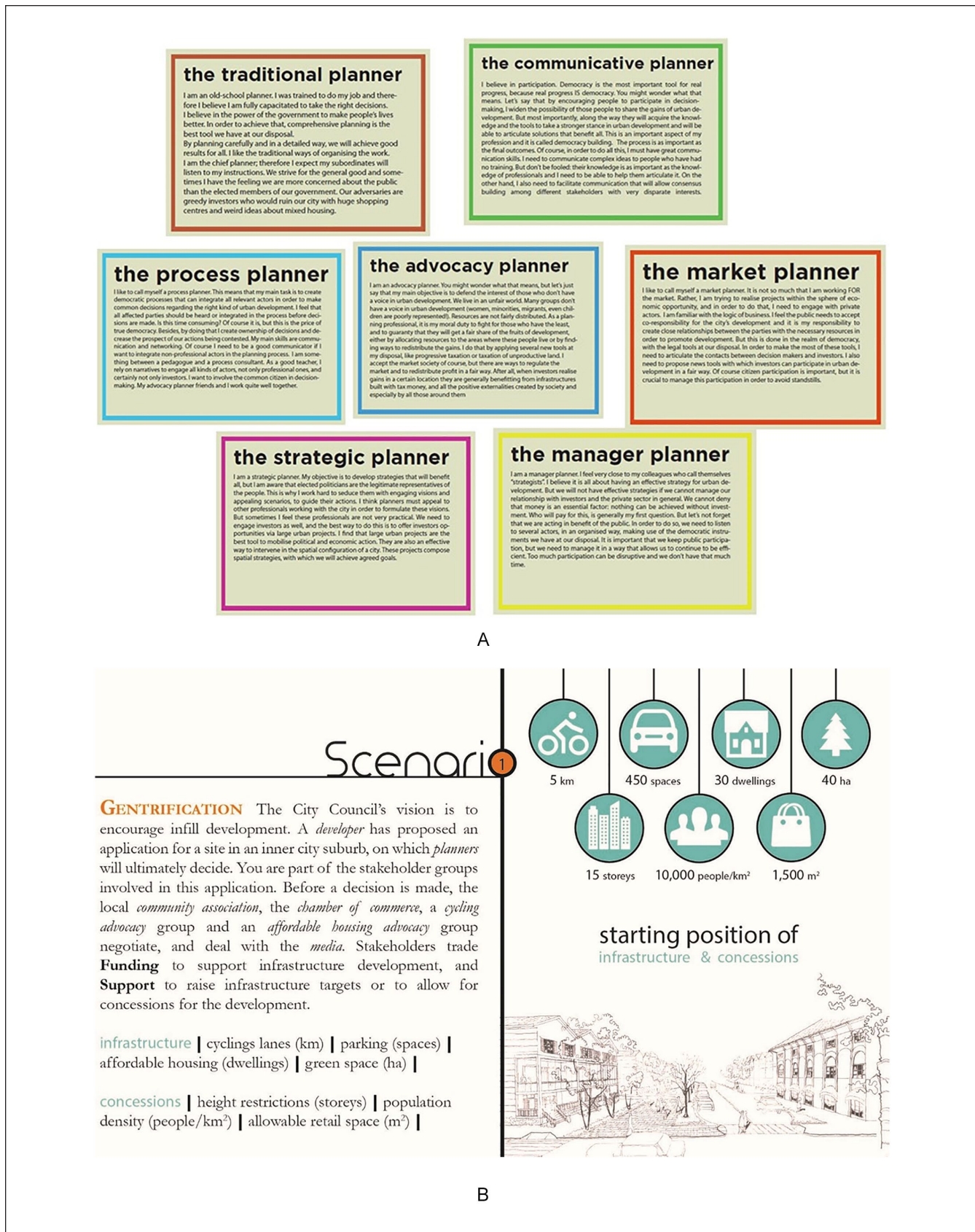
Figure 1. Activity cards: (A) Planning roles played during the GPG and (B) PPP scenario card.
Note: Designs by authors. GPG = Great Planning Game; PPP = Polis PowerPlays.

Table 1. Conceptualizations of Planning.

	Rivalry and Powerplay (%)	Communication and Mediation (%)	Satisficing and Compromising (%)	Impartial Arbitration (%)
GPG	33	54	34	39
PPP	41	44	43	14

Note: About fifty students participated in each activity, as noted earlier. GPG = Great Planning Game; PPP = Polis PowerPlays.

their links to planning theory course content. The second section, which derives from the first, compares and contrasts the GPG to PPP in terms of effectiveness.

Where direct quotes are reported to support a finding or argument, they have been edited for anonymity and clarity (as not all students were native English speakers). In a few cases (e.g., when students from the same team provided very similar feedback), composite quotes are reported in the interest of brevity.

Bachelor Students' Conceptualizations of Planning

Four themes emerged from the data. It appears that after enrolling in this planning theory course and partaking in role-playing or serious gaming, students come to view planning alternately as (1) "rivalry and powerplay," (2) "communication and mediation," (3) "satisficing and compromising," or (4) "impartial arbitration." The first two conceptualizations are in line with the pluralist paradigm in planning theory, the third aligns with incrementalism, whereas the last one leans toward rationality. The four themes are unpacked below.

Table 1 shows how many students shared particular conceptualizations. While perusing the table, readers are reminded that this study is qualitative in nature, and sample sizes are not large enough for meaningful statistical analysis. Often students conceptualized planning in more than one way—hence the totals do not add up to 100 percent.

Planning as rivalry and powerplay. Nearly all students are of a pluralist bent. They conceive of planning as competition among various stakeholders, who sometimes have clashing interests, and who are often secretive about their agendas. Two PPP players offer the following insights which capture a general sentiment:

> It was clear that to achieve our goal we had to think strategically and logically to understand the nature of the individual groups. Without knowing their goals it was difficult to understand their behaviour and motivation . . . One thing I learnt from this game is that while you might be campaigning for one particular group, thinking that your objectives are important, those very same objectives could be the thing that prevents another group from achieving their goals. (PPP players)

Students are aware that "politicking," "deal-making," and "persuasion" are all part of planning—and often pivotal in determining particular policy trajectories (Stone 2014). Groups need to strike bargains in the political arena (Friedman 2000). In line with this understanding, one group of students (about 6–7) applies the following strategy when cast in the role of a development company during the PPP session:

> We tried to pull as many people on our side as we could so they wouldn't vote against [our proposed development] . . . After learning that the media could also help us lower the social influence of other groups, we began using that to our advantage. (PPP players)

Meanwhile, a PPP player partaking in a nonprofit group vying for affordable housing says,

> We found it unpleasant that the developers were short-sighted to not form an alliance with us—otherwise they would have had better outcomes in terms of density . . . Perhaps we were not persuasive enough . . . (PPP player)

Even government planners are seen by some as powerbrokers, in other words active participants in the power plays:

> Overall, it is the planners who make the decisions while everyone has their eyes on the overbearing developer. (GPG player)

Also, students quickly realize the moral relativism involved in post-modern planning, and the need for tolerance. The following comments recur in at least 90 percent of the research materials:

> No one is wrong in their perspective. But the challenge is to find a common ground. (GPG player)

> I learned that planners in different roles [e.g., working for a developer, for a non-profit, for the government] view professional ethics differently. (PPP player)

Another important lesson is that, in planning, more powerful groups have more capacity to advance their issues on the public agenda (Birkland 2010). Less powerful groups tend to be underrepresented and quiescent:

> We [the community association] quickly became aware that public support could only get us so far [compared to money],

and began selling off our support to the only group that could afford it: the developers, who were also our antithesis. This was a frustrating process . . . (PPP player)

But students also realize that power depends not only on financial resources (though it is clear to them that money plays a large part). Other crucial steps to power are the ability to form coalitions, achieve visibility, persuade the public and the media, and induce mass sympathy for one's cause (Birkland 2010):

> The developers appear to have the upper hand . . . [But] I realized that having money alone cannot gain you major outcomes in the real world. A combination of support and funds can certainly help. (PPP player)

> Sometimes in planning you have to forge alliances with groups with distant interests in order to overcome groups with competing interests. The balance of the power struggle shifts constantly. (GPG player)

In line with the advocacy planning paradigm, other students posit that oppositional stances and alternatives to any development proposal are necessary in a democracy and serve to reduce bias (Davidoff 1965):

> Different [community] associations and advocates play a significant role in planning because without their voice, developers could get away with ridiculously ambitious proposals. (GPG player)

A preoccupation with developers "getting away with too much" is specific to the planning context in Australian cities, which in the last few decades has embraced pro-development neoliberalism. Consequently, public trust in the planning system has eroded, and local communities tend to believe that development companies dominate planning (Kwok, Johnson, and Pojani 2018). Students' feedback reflects this general sentiment:

> Working for developers would be very frustrating. Although they consider the needs of local residents, they are very motivated by money, authority, and power. They focus more on quantity than quality . . . Planners who work for developers face an ethical dilemma in that they should help their client achieve the best outcome for them—which for a developer might be a taller building or larger lot coverage (Figure 2). But they shouldn't compromise their own values. This offers an opportunity, perhaps even an obligation, for planners to guide their clients through the development process to arrive at more well-rounded outcomes. (PPP players)

> The City Council and the developers usually get together and do a lot of the decision making . . . Our goal is to eliminate closed door meeting between developers and high level stakeholders. (GPG players)

At the same time, students' belonging in nonprofit, advocacy groups take a practical approach, trying to extract as much
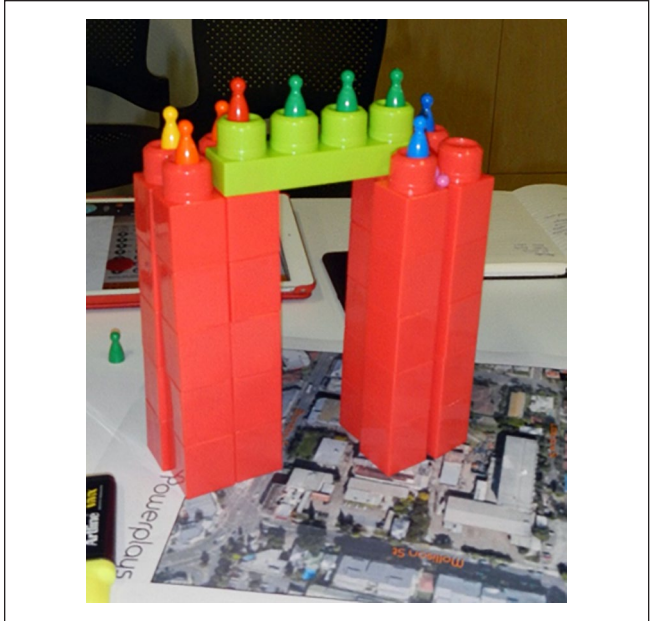
Figure 2. High-rise buildings as envisioned by a "developer" group during a PPP session.
Note: Photo by authors. PPP = Polis PowerPlays.

gain from a situation which is accepted as given rather than challenged. They seek to figure out ways to "tax" profits from private development in order fund their own targets—rather than challenge "privatism" as such (Squires 1991). One PPP player says,

> Our strategy was to use all of our money to gain public support and then force the developer to pay for cycling lanes in exchange for our public support . . . We planned to bluff the developer into thinking that we had that much public support to use. (PPP player)

This approach—somewhat determined by the structure of the class activities but also by the local context—is in line with the "social reform" view of planning which is concerned with social welfare, environmental quality, and urban economic processes, but far from the social justice paradigm, which maintains that planners must challenge the structures of power (Marcuse 2011).

Planning as communication and mediation. One portion of the students conceive the role of planners as focused on negotiation and mediation among various interests, for the purpose of finding common ground and avoiding lose-lose and tragedy-of-the-commons scenarios (Forester 2008). This is also a pluralist view—albeit a more benevolent one (Healey 1992). It may be fostered by a required course on "teamwork and negotiation for planners" offered in the first year of the planning program.[3] Students holding this view believe that goodwill and altruism will prevail over self-interest and backstabbing. Public participation is seen as crucial to

democracy in all cases, and planning products and processes are considered as requiring group rather than individual effort. The following quote is representative of both GPG and PPP players and it recurs very often in the responses:

> Planning in itself requires a lot of communication and negotiation . . . It is important to consider the views, opinions, and needs of all groups involved, and to not let any groups be neglected . . . Planning is not individual work, it is group work actually. (PPP players)

> Overall, it seems that communication and transparency are what gets projects through . . . Because planning is highly complex, planning approaches that consider the desires of multiple stakeholders are more likely to be successful than those which push ahead without consultation . . . If planning was solely black and white, it would be done by robots, not people. (GPG players)

In line with the equity planning paradigm—a less combative version of advocacy planning (Krumholz and Forester 1990), students feel that it is a planner's job to allow all groups to be heard and make sure that they have fully comprehended proposed plans. This may involve making any underlying bias more explicit. To this end, plans must be translated into nontechnical written and visual language, and planners must act as educators of the public. One group of "communicative" planners recommends,

> Send around a draft or a plan, and plan a forum so people know what you are talking about. People don't understand all of that [technical language], they want the pretty pictures . . . A lot of what causes NIMBYism is people not knowing why [a project] is going ahead, they just feel this is thrust upon them. So our job is to try and make them understand what's actually happening—because the media can beat it up and make it sound a lot worse than it is. We need to make people understand that there is method to the madness. (GPG players)

In this sense, planners are seen as consensus builders, their role being to help parties communicate and smooth out any conflicts among stakeholders with different values. But some students find this task rather taxing, as they do not deem themselves to be "communicatively competent" (Dryzek 1990). The games make them realize the very real possibility of impasse during mediation, or collaborative processes in general (Campbell and Marshall 2002):

> Trying to understand what people wanted at the end of the day was very difficult. If we couldn't provide what they wanted, it was hard to negotiate with them. It felt as though we were essentially in a chokehold where it was hard to make any positive progress . . . Although you might have support from a stakeholder group, they also require something in return . . . This produces a situation like a complex web that's tangled. (PPP players)

Even among students who see themselves as communicators and mediators, cynical comments do emerge. It occurs to these students that at times discord and unfairness prevails, notwithstanding planners' best efforts. The game reveals that democratic processes can and do produce unjust results (Fainstein 2000). The needs of some groups (e.g., minority and low income) are marginalized, while government officials and elites use their status, authority, wealth, and privilege to manipulate decisions (Klosterman 1985):

> Planning processes leave some groups satisfied and others feeling as though they have been ignored . . . I learnt that the powerhouses in planning are the ones who have control over money and public support . . . Smaller groups [non-profit advocacies] have little to no influence on the planning decisions . . . For example, even though the community association representatives took a more proactive role in this game than is practical in the real world, they were still unable to convince the planners to do what they wanted. (PPP players)

> Obviously in a capitalist society a lot of people with money usually get what they want and the little guys miss out . . . Planners need to stick to the democratic process that the government itself has devised . . . Now the government's position is: 'we have created this [public participation] legislation, but we want something that's different to what the legislation can give us so we're just going to ignore it.' . . . We want the community to be able to comment earlier, we want to have a pre-lodgment meeting (Figure 3). (GPG players)

Students also come to acknowledge that longwinded participation and mediation processes can be inefficient ("more complex than they need to be") and thus lead to fatigue and dissatisfaction among stakeholders, especially those who stand to lose the most but do not have the time and resources to partake in consultations over extended periods (Klosterman 1985).

The risks of middle-class NIMBYism and turf politics (DeVerteuil 2013), which public participation processes carry, are also underscored. Students note that planning needs to consider a larger region rather than proceed on a site-by-site basis, in a fragmented and decentralized manner—as it is the case in much of Australia and America (Downs 2001). For example, one group (4–5 students) says of the antidevelopment property owners of an inner-city neighborhood:

> You're crazy if you think you can have a big backyard and a two-story house when you've got the CBD, you know, 100 meters in front of you . . . The local [NIMBYs] have put up a rather negative campaign with certain imagery and posters . . . They need to show the good side of [their neighborhood] and argue why we should retain that, rather than just say no to all new development [in their area] . . . As planners, we want to make sure that local plans reflect higher level planning
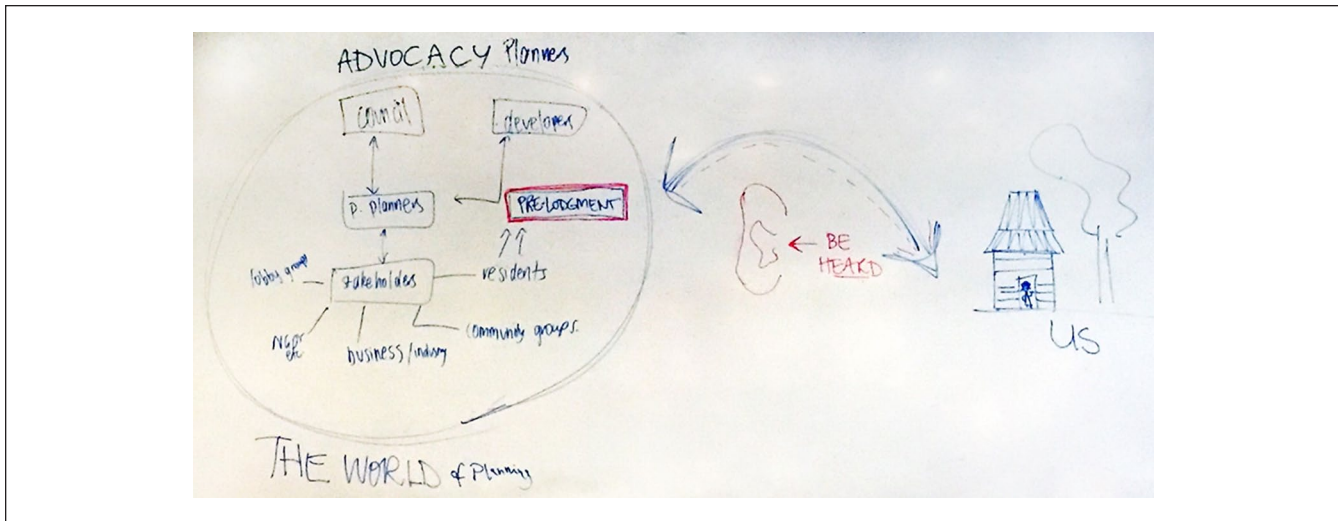
Figure 3. Planners as advocates for "the little guys."
Note: Diagram provided by GPG players. GPG = Great Planning Game.

schemes [regional, state, federal] . . . Ultimately, we want to achieve a vision for [the whole city] so we look at it from a larger perspective than just a local site. (GPG players)

Another, similarly sized group highlights how more recent, "gentrifier" residents often have a stronger antidevelopment stance than other, less active and powerful groups. Having once displaced poorer/migrant households, they fight to protect the value of their inner-city property, which has now much appreciated:

We represent the generational locals. At the moment, a lot of new people who have moved in [more recently] have been heard but the generational locals haven't been heard at all. (GPG players)

Planning as satisficing and compromising. A portmanteau of "satisfy" and "suffice," satisficing is a decision-making strategy that aims for a "good enough" solution, rather than the optimal solution. It differs from maximizing, a strategy that aims at achieving the best possible outcome. Students are keenly aware that in practicing the planning profession they will have to take small steps and reach compromises rather than come up with grand, unifying visions. They are willing to settle for "good enough" planning rather than reach for "great" planning. This is clearly evident in the materials obtained from both the GPG and PPP. The following composite quote is typical:

Planners have to try and satisfy a lot of different interest groups, which is a near impossible feat. In the end, there is usually a solution which doesn't necessarily make everyone happy but may make the majority satisfied . . . The planner must formulate alternative proposals and consider making concessions . . . The game was a really interesting way to

understand how compromise and trade-offs occur in real life planning scenarios . . . Planners are professional strategists who need to balance political goals and sustainability goals.

These conceptions are more closely aligned with the incremental planning paradigm, which posits that much of planning is about "muddling through" rather than optimization or challenge to the status quo (Lindblom 1959). While this conception is likely to be realistic, it also carries the risk of fostering complacency, inertia, and conservatism among young planners (Dror 1964).

Planning as impartial arbitration. Just a few students view planners—in particular when in public service—as impartial actors who arbitrate among the other stakeholders and enforce fair play. This is more in line with the rational planning paradigm, which is heavily criticized in theory courses but sill applied in studios (Pojani et al. 2018). In this view, planners are the interface between private development and public planning. In line with the rational planning model, they must act primarily as regulators rather than as advocates or mediators (Pojani 2012). Their task is to rationally balance environmental, economic, and social goals—the triple bottom line (Campbell 1996). Students note,

It was evident that planners had to be impartial . . . As some stakeholders' objectives were a bit far-fetched, we stepped in to impartially decide what would work best in the area . . . A lot of groups sought to act quickly taking advantage on other people's lack of knowledge of the game. Although this was our immediate thought too, our ethics made us play the game fairly.

In my opinion, government planners are the arbitrators. Whilst they are coerced by every group involved, their main

goal is to remain unbiased and objective, not take sides, and seek an outcome which would benefit everyone rather than please the loudest voice.

Students express sympathy for public planners for not being able to make rational decisions and for being unshielded from political interference:

> The game made it obvious how difficult a position planners are in when developers are pushing for more than they are allowed. (PPP player)

> Politicians obviously make the call, in terms of what needs to be done. (GPG player)

But students also realize that, because the planning playing field is not leveled, achieving "balance" and "fairness" involves advocating for powerless groups (Davidoff 1965):

> We as planners should stand on the side of minorities because this job is about balancing . . . I learned that planning should be equal to every group, especially the elderly, children, women, the disabled, the poor.

Although most students do not make an attempt at developing a homogenizing "metanarrative" (Friedman 2000), some struggle with the postmodernist relativist stance and its discursive fragments. They would like more clarity, simplicity, and unity, as in the old-fashioned technicist approach (Marcuse 2011). In line with utopian thinking, these students (a minority, about a third of all) are concerned with creating a "good city"—viewed as a product rather than as a process (Friedman 2000):

> What frustrates me is the divide between planning styles which are very different depending on who the client is . . . It just proves how easily a different frame can change your views on a proposal—even though all planners receive the same training in school . . . How can we combine all the proposed alternatives to get a good final product? . . . I thought planners would think more holistically, but apparently not.

One student zeroes in on a question, the answer to which is arguably key in modern liberal democracies:

> Shall we listen to every single opinion or instead just focus on a few individual experts and rely on them?

Learning Effectiveness of Role-Playing versus Serious Gaming in Planning

In our interpretation of the research materials, both activities are equally effective at helping students learn while having fun, embody different planning roles, and discover new aspects of planning. The agreement on these points is nearly universal. The GPG tends to foster collaboration, while PPP has a more competitive nature, with nearly all GPG players focusing on the intra-group collaboration aspects of the activity, and nearly all PPP players providing feedback on inter-group competition during the game.

Learning while having fun. Both activities are quite enjoyable for students. The following feedback is typical of players:

> The game was engaging, entertaining, and lots of fun . . . This was an excellent class activity that you should definitely offer in years to come . . . Overall, a great game. (PPP player)

> I liked the activity because I'm a visual and practical learner . . . Presenting concepts in an interactive format worked well for me . . . I also appreciate the opportunity to gain extra credit in a relatively stress-free way. (GPG players)

While amusement might not be the primary purpose of educational activities, it certainly helps in keeping students engaged. But the GPG and PPP go beyond "edutainment"—they do lead to learning and reflection, especially if a debriefing survey is required at the end of the activity:

> The game encouraged me to learn about how planning might play out in the outside world—far beyond the academic scope of how planning is portrayed . . . Theory sugar-coats the process. (PPP player)

> Being able to participate and see each planning approach in practice (rather than reading about it in lecture notes) was very helpful. (GPG player)

Fostering collaboration versus competition. Overall, PPP encourages a more competitive attitude among students than the GPG, because of its score component. PPP players use terms such as "success" or "failure" to note whether they have reached their targets or not, or refer to other groups as their "enemies" making "unreasonable" demands. For example,

> The game was a great opportunity to experience interaction, negotiation, the disappointment of rejection and the excitement of success. (PPP player)

> As our group had a significant amount of resources compared to other groups, we were considerably advantaged. (PPP player)

> It was extremely pleasing to actually achieve a target that you had been negotiating for. (PPP player)

As such, PPP helps in maintaining focus and engagement—whereas part of the GPG involves passively listening to the presentations of others. Most students (at least two thirds) quite enjoy the competitive aspect of PPP and a few would like it to be more intense:

Figure 4. Student interaction during a PPP session.
Note: Photo by authors. PPP = Polis PowerPlays.

I found it rather frustrating that everyone ended up winning the game. [. . .] Definitely, fewer tokens should be handed out to make the game more strategic and negotiations more intense and real. (PPP players)

The GPG appears to encourage collaboration as opposed to competition. The following quote is representative:

It is a good activity to help us work with other classmates and express ourselves . . . It was fun to share with our own group and then with the larger group [the whole class]. Got to hear different opinions and [international students] were giving examples from their own countries . . . While all interest groups push their own ideas, respecting others,' keeping the ability to listen and collaborate are the key features of progressive planning. (GPG players)

Nearly all students also like the intra-group and inter-group collaboration expected in both activities:

The game allowed interaction between individuals who would otherwise not interact with each other (Figure 4) . . . An aspect I found satisfying was the groups bonding together to fight for a common goal . . . We elected a leader to make the communication with other groups easier and avoid chaos . . . Sometimes groups were more concerned about negotiating than the actual outcomes they wanted to achieve . . . I liked the fact that the game allowed me to use my own communication skills as a person to attempt to make deals with others. (PPP players)

I was very satisfied with the dynamic within my group. Everyone was motivated to practice and try something new . . . However, everyone had a slightly different perspective on how to interpret the planning paradigm we were assigned. This might be due to personal or cultural differences or connected to people's educational background and work experience. (GPG players)

Embodying different roles. Both games are beneficial in helping students embody the different stakeholder roles and empathize with those. A group mentality forms, and students bond with other members of their group. For example, a student playing PPP from the perspective of a real estate development firm says,

The community association and cycling advocacy groups demanded a lot in terms of parking, cycling paths and green space. We found it hard to negotiate with those groups so the discussions stalled . . . In the second round, we decided that we should negotiate with the media, the chamber of commerce, the [government] planners, and the affordable housing advocacy, as they were more willing to do business. (PPP players)

Students quickly grasp the viewpoint and agenda of the group they represent, and, to persuade others to follow, they stress the benefits of their proposal while minimizing any negative impacts. To illustrate, a group of students (5 or 6) role-playing a market-oriented planner during the GPG argue that

We thought that, because this neighbourhood is close to the CBD, we'd propose high-rise buildings. This will be beneficial [to the community] because it will bring in amenities like coffee clubs, local stores, etc. Our development is going to boost the local economy. The City Council will get more infrastructure fees, and so they'll be able to invest in more parks and other public amenities . . . We are willing to meet the community association half way . . . We wouldn't build a project for which there was no market demand. (GPG players)

However, some students find it difficult to embody a planning role that clashes with their own values:

I found it difficult to argue from the perspective of a market planner [working for a developer] because I don't believe in

it . . . Personally I think community participation should be more central. (GPG player)

Discovering new aspects of planning. For students, the activities brought to the fore planning issues which they had not considered before. They often note that the games place the theoretical lectures in perspective and make them aware of the scope of planning and the presence of "hidden" stakeholders.

For example, about a dozen PPP players, such as the one quoted below, relate that the role of the media in planning is a new discovery for them:

> There were many different elements of planning that I didn't know much about—such as the powerful role of the media. How they'd play out in advertising planning campaigns and also accommodate the wants and needs of the community and developers in constructing advertisements to support their claims . . . (PPP player)

Students recognize that the media provide an opportunity for those who do not have much power to voice their opinions. But they also realize the media's manipulative and profit-driven nature. A student who belonged in the media group offers,

> We had the notion of being a fickle media team to meet our ultimate [financial] target. We did this by writing a story for the best price even if it meant contradicting previous stories in the paper . . . Planners must not let the media have too much influence on decisions. (PPP player)

Another student underscores her deeper understanding of the complexity of planning processes after the game:

> Planning is multi-faceted with many different opinions influencing just one local development. There are more parties involved than you would expect. It makes you consider how much more complex larger scale projects and plans can be. (GPG player)

Yet another notes how the game helped him understand the transformation which projects undergo during the planning process:

> There is a large disparity between the first draft as envisioned by the developer's planning team and the final product after it has been scrutinized by other stakeholders. (GPG player)

An important lesson centers on the role of personal relationships and connections (within a group and between groups) in planning process:

> The process of making deals with other groups was somewhat difficult as the personalities of the members came into play, meaning that their own values and beliefs had some control over their actions. With this I learned that, even though a deal

may be in the best interest for both parties, a negative opinion of one another can potentially outweigh the positives of the deal at hand. This of course works both ways, as groups which I had friends in were much more open to dealing, making communication between the two groups significantly easier . . . Having such a large group came with conflicting ideas which slowed our decision-making process. (PPP players)

But students are also aware that reliance on personal connections constitutes a slippery slope toward corruption, favoritism, and "broken promises":

> I learnt that there is lot that goes on behind the scenes in approving a development . . . The decisions made could be perceived as benefitting one stakeholder over another . . . (PPP players)

Discussion: Timing of Activities, Appropriate Preparation, and Instructor's Role

A few words of advice for instructors. There are substantial differences in carrying out the two activities in class. PPP is more complex to explain to students than the GPG and it requires more preparation on part of the instructor who needs to act as game master. While it only takes about ten minutes to brief the class on the GPG, explaining the PPP rules can take up to 30 minutes, even where the game manual and an instructional video have been provided ahead of time. The following comments are typical among PPP players:

> The game was confusing to start off with and we didn't really understand what was happening until the second round . . . So toward the end the game was rushed . . . It would be awesome to play the game again now that we all understand how it works. (PPP players)

As such, PPP is best suited for a three-hour class, while the GPG is more flexible and can be easily adjusted to fit either a two- or three-hour class—for example, by lengthening or shortening the preparation and presentation time allocated to groups. A few students note that they would have liked more instructions about the GPG workflow ahead of the session, more time to prepare group presentations in class, and more detail regarding the project context (e.g., the financial, land use, and legal parameters for a particular site).

The activities are not very well suited for heterogeneous classes which mix students at different levels (e.g., bachelor and master). But they are a good way to encourage domestic and international students within a cohort to mingle, collaborate, and refine their negotiating skills. One GPG player suggests that the process could be made more collaborative by combining more nationalities in each group.

At the same time, a few students note that, in very international groups language barriers might hinder communication

to some extent. Also, a control mechanism must be in place (such as a peer review sheet) to ensure that all students within a group participate more or less equally, and to minimize freeloading—which is a common problem with all group work. Students themselves suggest this.

If the games are played more than once per semester, instructors should reshuffle groups so that students gain insights into other perspectives, including those that might clash with their own. Nearly half the students propose this approach while suggesting that these activities should take place more often.

During the GPG the instructor acts as a time keeper, group advisor, and commentator. He or she must act as a "dramatic producer," involving students "imaginatively in the situation" (Blatner 2009, 3). By contrast, during PPP the instructor needs to move around helping groups along and providing extra tips or explanations. Practically, he or she needs to play the game along with the students. While a single instructor can handle the GPG, it is preferable to have at least one extra demonstrator help run a PPP session.

Although the instructor is more involved during the PPP, both activities work best when students and instructors have a close, informal rapport and a relaxed atmosphere prevails in the classroom. Because role-playing and serious gaming are "improvisational procedures," they require "a feeling of relative safety" which "must be cultivated in a group" (Blatner 2009, 3). If these activities take place before a cohort has gelled, the lecturer should engage the students "in a 'warming-up' process in which they get to know each other in a more trusting fashion and become involved in the theme to be learned" (Blatner 2009, 3). A debriefing survey (oral, written, or recorded online) at the end of the activity is highly recommended to harvest students' feedback and adjust the activities accordingly.

Conclusion

Role-playing and serious gaming are equally engaging and help planning students learn and embody different roles while having fun. Hence, a main lesson for educators is to combine the traditional lecture format with hands-on activities such as these. Our qualitative analysis discerned no great differences in terms of learning effectiveness. With regard to teaching style, the GPG is more passive and tends to encourage collaboration, whereas the PPP is more dynamic and fosters competition. An option is to implement both activities in the same course at different times rather than only one or the other. Both the GPG and PPP help students discover aspects of planning—and planning stakeholders—which they may not have considered before. The foregoing analysis reveals that most contemporary planning students (at this Australian university, at least) regard planning as a pluralist pursuit. Communication and public participation are viewed as central to planning processes. However, traces of incrementalism and rationality are also present. While students believe in equity planning (i.e., advocacy from within the system), radical social justice approaches that challenge the status quo are notably absent.

Students' conceptualizations may have been influenced, to some extent, by the role-playing and serious gaming activities.

However, the main influencers are likely to be (a) the overall content of the planning theory course in which the activities are embedded—with a number of the assigned readings cited throughout this article; (b) the local planning context and culture, which is relatively conservative (see Insch and Bowden 2016); and (c) the political tendency toward conservatism among Millennials and Gen Z members compared to Baby Boomers and Gen Xers when they were young (Twenge et al. 2016). In the future, it would be interesting to compare these results to students' conceptualizations of planning in a different cultural context outside the Anglosphere.

It must be noted that these activities cannot fully replace guided and structured instruction. They cannot substitute for actual studying and thinking. Rather, role-playing and serious gaming, as "whole task practices," could provide a critical component of learning and skill transfer in planning theory courses after (most) direct instruction is completed. Such experiences are best suited as a follow-up to more traditional teaching methods (Ulicsak and Wright 2010). However, both are highly recommended as they involve accommodation as opposed to simple assimilation of learning, helping students expand and alter their mental map of the planning profession.

Authors' Note

Both activities discussed in this article are copyrighted by the authors. Dorina Pojani is involved in the planned commercialization of Polis PowerPlays (http://polispowerplays.com/). The Great Planning Game cards are included in the publication by Roberto Rocco and Remon Rooij (2018).

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Notes

1. The Great Planning Game [GPG] was first developed for a course on management, planning, and development at Delft University of Technology in The Netherlands. The course covers spatial planning, real estate, economics, urban law, and redevelopment. It is designed to promote a better understanding of the value of strategy-making.
2. The university has a policy on automatically recording class sessions that take place in equipped venues.

3. Elsewhere, for example, in North America, inclusion of courses on negotiation and mediation in planning curricula is required for accreditation by the Planning Accreditation Board, as it is considered as a core competency for practitioners (see Claydon and Chick 2005; Stevahn 2004).

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