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Innovations in Teaching Public Policy and Management: The Case of ANZSOG's EMPA Program

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Introduction

The Australia and New Zealand School of Government (ANZSOG) was established in late 2002 by a consortium of Australian and New Zealand governments, universities, and business schools with the intention of creating a world-class institution focused on developing the future generation of public sector leaders. Its formation reflected a shared view among those in the consortium that one of the significant challenges for all governments in the 21st century was to enhance the breadth and depth of policy and management skills in government, and accordingly invest in the further education and development of those who are destined to be leaders of the public sector.

The founding members of ANZSOG comprised five governments—the national governments of Australia and New Zealand, and the state governments of New South Wales, Queensland, and Victoria; nine universities; and one business school, the Melbourne Business School. The universities that joined the consortium were the Australian National University; Griffith University; Monash University; the Universities of Canberra, Melbourne, New South Wales, Queensland, and Sydney; and Victoria University of Wellington. The objective of these founding members was to create a first-tier school of government that was equivalent to the best international business schools and schools of government, and whose programs would be tailored to the unique needs of the Australian and New Zealand governments.

Now in its 4th year of operation, the school offers a master's-level program in public administration (the Executive Master of Public Administration, or EMPA), offered in partnership with all but one of its member universities; a non-award-based senior executive program (the Executive Fellows Program); and a growing range of other specialized non-award-based short programs for emerging leaders in the public and not-for-profit sectors.

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The EMPA Program

Objectives

The EMPA program was created to address as a priority issue the need for participating governments to develop high-potential successor pools of appropriate breadth and depth. The intention was that the EMPA provide participants in Australia and New Zealand with an educational experience of comparable quality to the postgraduate degrees in public administration and public policy offered by flagship schools of government around the world—such as the Kennedy School of Government at Harvard, the Maxwell School at Syracuse, the Goldman School of Public Policy at the University of California at Berkeley, the Ford School at University of Michigan, and the Woodrow Wilson School of Public Policy at Princeton.

The EMPA is designed to develop world-class public sector managers who:

- have a broad view of, and an excellent skill base in, management, service delivery, and policy analysis across the spectrum of public sector activities;
- demonstrate a critical understanding of the central concepts and literature from the fields of public administration, public management, and public policy;
- can undertake critical analyses of public sector issues, using multidisciplinary perspectives, and engage in informed debate on the issues;
- can understand and apply research methods and undertake independent research;
- are prepared for and committed to a long-term career path in the public service; and
- can improve service delivery and policy outcomes across all levels of the public sector of Australia and New Zealand.

In summary, the EMPA is designed to enhance the depth and breadth of management and policy skills of high-potential public sector managers, to provide these managers with the tools and frameworks needed to be clearer about the value public managers deliver to the public, and to better equip public managers to manage complex accountabilities in the face of shifting political, economic, and organizational environments.

Structure

The EMPA is a 2-year, part-time university degree program offered in partnership with all of ANZSOG's member universities except the University of Queensland. The school itself does not award the degree in its own name. Rather, EMPA candidates enroll in one of the school's partner universities and upon successful completion of the course are awarded their degree from that university.

Designed in close consultation with the funding jurisdictions, the degree has been tailored to the specific needs of future public sector leaders. Of the 10 subjects in the EMPA, seven are core subjects delivered by ANZSOG teaching faculty. The three remaining elective subjects are taken by each student at the university of his or her enrollment. One elective must be taken in the field of public sector financial management, and the other two electives are expected to be chosen from disciplines related to public policy and management. Students may choose electives to establish a bridge between their past study and experience and the core curriculum to enhance their knowledge in a specific discipline, or to enhance their knowledge of a specific policy area, such as health, education, or the environment.

Curriculum

The curriculum of the EMPA was developed after extensive consultation with public sector chief executive officers in member governments. Initially these consultations were conducted by the Boston Consulting Group (BCG), which led to the sketching out of a 10-unit program, of which 70% would be delivered by the school as core subjects. The details of the curriculum were finalized after considerable input from leading academics in the partner teaching institutions. The finalized curriculum reflects the spirit of the original BCG proposal—maintaining a strong focus on the role of the manager within the public sector, emphasizing problem solving and cross-disciplinary learning, and involving a careful blend of academics and practitioners (including current and former political leaders) as teachers.

The seven core subjects in the EMPA are:

- **Delivering Public Value**—reflects the reality that delivering value to the public is the essential management task of government today. To do this, public sector managers must deliver outcomes for government, apply available resources efficiently, and manage people and operations to deliver outcomes. They need to understand the theory and application in public sector contexts of organizational structure, purpose, and rules; political purpose and institutional arrangements;

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risk identification and management; operational planning; and interdependencies and connections between policy and service delivery, and between policies and programs.

- **Designing Public Policies and Programs**—brings evidence-based analysis to public issues in a context which takes account of the authorizing environment, ideological and political preferences and perspectives, existing policy commitments, and international best practice. Public managers need to understand frameworks for successful problem solving, policy context, institutions and processes surrounding policy advice, various frameworks for explaining the rationale and role of government in policy development, intervention logic, and public management initiatives and strategies for linking outputs to outcomes.
- **Government in a Market Economy**—is a compulsory subject because a more outward-looking public sector culture calls for a robust understanding of what is valuable individually and collectively, and how the workings of markets, governments, and other institutions affect the value. This means understanding both how markets work and how they can fail—and balancing this understanding with an appreciation of how government can add value and how governments can fail. In many areas of government activity, market-related disciplines do not apply, increasing the risk that real costs will be opaque or disguised.
- **Decision Making Under Uncertainty**—addresses the requirement that managers in government must become more critical users of information and evidence. To do so, they need to be able to use both qualitative and quantitative information, understand methods and evidence to support decision making in the public sector, and have the capacity to commission research and analysis to accurately use, interpret, and draw inferences from information gathered as evidence to support decision making.
- **Leading Public Sector Change**—focuses upon the daily challenges facing public managers to balance and adjust the often conflicting and contradictory pressures within a rapidly changing environment to deliver the government's agenda. Over the past 30 years, an array of global and domestic pressures has significantly changed the challenges confronting government. Public sector managers now operate in an environment where citizens are better informed and demand more responsive and accountable services—now commonly delivered—once, removed from direct government control.

- **Governing by the Rules**—is concerned essentially with the jurisprudence of government because knowing how the law applies, how to read it, how it works as a system, conditions for reasonable performance in operation, and knowing how to successfully navigate through the complexities of government are all vital skills for any public sector manager. Public managers need to have an applied appreciation of the role of legislation, regulations, and conventions; their importance to good government; and how the authority of the State is appropriately used to deliver government objectives in accord with the underpinnings of the system of government.
- **Work-based Project**—the final compulsory subject is a team-based research project addressing a real-life issue confronting government. Projects typically span jurisdictions, and disciplines, and the work of the teams reflects the fact that many issues in government are now frequently addressed collaboratively and interjurisdictionally rather than individually.

The core curriculum of the EMPA is thus multidisciplinary and application-oriented, and emphasizes technique, experience, judgement, and values—in short, the “trade craft” of government. The curriculum builds on an explicit recognition that a corpus of knowledge, skills, competencies, and values that is essential for effectiveness in the Australian and New Zealand governments, and draws on the students’ real-world roles as managers and policy advisors by providing opportunities to integrate theory and practice.

Connecting Themes. Several connecting themes shape the development and delivery of the core curriculum. These consistently aim to enhance students’ ability to:

- work with ambiguity and changing objectives;
- sort out real problems from symptoms and learn how to manage people to solve real problems more quickly;
- understand the roles and influences of structure, organizations, leadership, human nature, values, and bounded rationality;
- apply theories and learnings from a range of disciplines to real-life problems;
- identify and manage risk; and
- understand the distinctive and evolving characteristics of Westminster-style systems of government.

Program Delivery

EMPA core and elective subjects are taught in locations across Australia and New Zealand. Delivering Public Value, which starts the program, and Leading Public Sector Change are currently delivered in residential intensive mode over 5 days to the entire cohort of about 125 students. Governing by the Rules and Designing Public Policies and Programs are also delivered in residential mode over 5 days to cohorts of about 60 and 40, respectively. Decision Making Under Uncertainty and Government in a Market Economy are taught in each jurisdiction over 5 days in blocks of 1–2 days over a period of 3 months. The Work-Based Project, which ends the course, brings the full cohort of about 125 students together for 2 days.

Students

The EMPA is targeted at public servants in the governments of Australia, New Zealand, Queensland, New South Wales, and Victoria who:

- are part of the successor pool for public sector executives (in current terms, roughly Executive Levels 1 and 2 in the Australian public service; grades 11 and 12 in the New South Wales public service; levels 5 and 6 in the Victoria public service; L6 and SO2 in the Queensland public service; and third- and fourth-tier managers in the New Zealand public service);
- have clearly and consistently demonstrated above-average performance;
- have the potential to move to senior executive positions in the short to medium term (currently defined as 3–4 years);
- have the intellectual capacity to complete a high-level master's degree;
- have the ability to contribute to class learning and to learn from others; and
- have a strong personal commitment and motivation to pursue their own career development, including a career in the public service.

Currently, ANZSOG's participating governments have committed to sending an agreed number of students each year. Within governments, departments are usually advised of the number of nominations they are expected to put forward to the central personnel agency within their jurisdiction. Accordingly, agencies set in train annual selection processes to determine who will be given the opportunity of studying in the EMPA. Selection to the program usually involves four steps. The first involves selection

by individual departments and agencies, which then forward their recommendations to a central coordinating agency. The second step occurs when the central coordinating agency in each jurisdiction finalizes the nominations and forwards them to ANZSOG. The third step involves consideration of the applications against the entry requirements of the degree program by a selection committee comprising the academic director of the EMPA and another member of the ANZSOG faculty. The final step in the selection process is taken by the universities when they enroll the EMPA students. The composition of the third student intake into the EMPA is set out in the table below.

Executive Master of Public Administration Intake, 2005

Government	No. of Students	Average Public Service Work Experience (Years)	No Undergrad. Degree (%)	Bachelor's Degree (%)	Higher Degree (%)	Male (%)	Female (%)
New Zealand	18	16	15	30	55	60	40
Commonwealth	29	15.5	24	42	34	48	52
NSW	31	17.5	10	60	30	50	50
Queensland	9	17.6	0	70	30	50	50
Victoria	36	11	5	60	35	40	60

NSW = New South Wales

Source: *Review of EMPA Program* (2000).

Teaching in the EMPA Program

The EMPA program endeavors to attract and engage the very best available teaching resources from Australian and New Zealand universities. In the main, ANZSOG faculty are drawn from the partner universities and business schools.

Teaching Philosophy

The teaching philosophy in the EMPA program has a number of distinctive features. These include:

- a primary focus on the public sector and specifically the management-policy intersection;
- an emphasis on interactive learning and in particular the use of case studies, most of which have been developed by ANZSOG's own Case Study Program;

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- the inter-jurisdictional nature of much of the learning process, and especially the use of teams or groups to undertake learning and assessment tasks;
- the use of expert guest presenters from government and elsewhere; and
- continuous improvement through the completion of subject evaluations by students and regular feedback from key stakeholders.

Role of Case Teaching

With the creation of ANZSOG came a conscious decision to avoid the traditional didactic (or “chalk and talk”) approach to postgraduate teaching. Instead, a far more interactive approach, in which students assume greater responsibility for their learning, was adopted. At the forefront of this approach is the use of case studies, potentially involving all participants in class discussion, challenging students to reflect on judgments and opinions, and enabling them to experience the dilemmas that a real manager is likely to face.

The educational rationale of the case method is firmly located within the problem-based learning paradigm. Case studies, which involve real-life situations that have confronted public sector managers, are considered a powerful means of exploring how key theories and concepts imparted by the course may inform problem solving and decision making. Learning with cases enables students “to take on the roles and responsibilities of specific people in specific organisations...to become deeply involved in decisions actually faced by real people in real organisations; to take ownership, to feel pressure, to recognize the risks, and to expose your ideas to others” (Mauffette-Leenders et al. 2001, p. 3). Through case studies, students can place concepts in context and gain an appreciation of their significance and relevance to differing circumstances. As Mauffette-Leenders et al. observe, cases give students “a chance to practice the art as well as the science of management in a laboratory setting, with little corporate and personal risk involved” (2001, p. 4).

Case studies are extensively used in the EMPA program. Preparation for a class involving case discussion will typically require that students read and reread the case circulated in advance of the class and consider a small number of key questions in groups of four to six students before the class meets. This preparation enables each student to contribute to discussion in class and to maximize their learning from the case study.

The ANZSOG Case Study Program

The ANZSOG Case Study Program developed nearly every case study used in the EMPA program. This program, which has been developed in

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ANZSOG to enhance and extend the teaching options for ANZSOG courses, offers high-quality, topical case studies for public sector management development, with a focus on current events and issues in Australia, New Zealand, Commonwealth countries, and Pacific and Southeast Asian countries.

With dedicated case writers in both Australia and New Zealand, the ANZSOG Case Study Program has in a very short time built a collection of some over 70 cases covering real-life episodes in Australia, New Zealand, and elsewhere. While this in-house development of teaching material is not unique—the Harvard Business School has a similar program—it is a highly distinctive aspect of the EMPA program that sets it apart from other master's programs in public management and public policy in Australia and New Zealand.

Group-based Learning and Assessment

Another distinctive feature of the EMPA teaching philosophy is group-based learning and assessment. Each core subject in the program usually has at least one piece, and often two pieces, of assessment prepared by cross-jurisdictional teams of four to six students. The justification for this arrangement is that it places students in a fairly accurate approximation of the real world—where the achievement of goals frequently depends on the successful navigation of complex working relationships with others. Research consistently indicates that the ability to collaborate creatively, write, and manage tasks and projects is becoming increasingly important in the business environment (Pfaff and Huddleston 2003). The academic literature also reports that collaborative learning has the potential to increase individual achievement more than individual or competitive learning. This is so, it is argued, because collaborative learning requires persistence when facing adversity, willingness to perform difficult tasks, ability to translate knowledge from one task to another, greater social skills, and intrinsic motivation (Johnson, Johnson, and Smith 1998).

Subject Evaluations

At the end of each core EMPA subject, students complete a comprehensive evaluation covering all aspects of the curriculum, teaching (including teaching materials), workload, teaching facilities, meals, accommodation (if appropriate), and other support services. The purpose of these evaluations is twofold. The first is to gain an overall assessment of the subject, in terms of both its academic content and its management—in other words, to gain an impression of how a subject is “traveling.” The other purpose of the evaluations is to gain a more specific understanding of how the student cohort perceives each element of the subject. To this end, every session and every presenter the students evaluate.

Subject evaluations, once collated and “crunched,” are made available to the dean, the academic director of the EMPA, and the subject leader. The key findings from these evaluations play a critical role in the debriefing process that follows each subject’s delivery. The feedback from the evaluations also plays an essential part in the final shape and delivery of a subject in its next iteration. Summaries of subject evaluations are made available to the school’s EMPA committee and the ANZSOG board.

Problem-based Learning

The teaching philosophy that the EMPA program has adopted—characterized by the use of case studies, a high level of interaction, and student-based learning in groups—has much in common with the concept of problem-based learning (PBL) popularized in US medical schools some 30–40 years ago. According to Vernon and Blake (1993, p. 600), PBL is more than a simple teaching method. It is “a complex mixture of a general teaching philosophy, learning objectives and goals, and faculty attitudes and values.”

The Process of Problem-based Learning

Reflecting on the process of PBL within the paradigm of medical pedagogy, Schmidt (1983) reports that it might typically start with a description of a clinical situation where a patient sees a doctor with an undiagnosed complaint. The PBL process might then proceed as follows:

- Step 1: Clarify terms and concepts not readily comprehensible.
 - Step 2: Define the problem.
 - Step 3: Analyze the problem.
 - Step 4: Draw a systematic inventory of the explanation inferred from step 3.
 - Step 5: Formulate learning objectives.
 - Step 6: Collect additional information outside the group.
 - Step 7: Synthesize and test the newly acquired information.
- (1983, p. 13)

Writing about the application of PBL to nonmedical teaching, Hadgraft (2000, p. 3) argues that problem-based learning has the following key elements:

- a *problem* as the focus of learning;
- *integration* of many concepts and skills required in the resolution of the problem;

- *teamwork* (which can make the process easier or sometimes harder);
- a *problem-solving process*; and
- a commitment to *self-learning*.

PBL, thus contrasts starkly with the conventional didactic approach, in which students are instructed by teachers whose primary role is to impart knowledge, and in which assessment tasks are completed individually.

The Benefits of Problem-based Learning

Schmidt (1993, p. 428) reports that PBL has the following cognitive effects on student learning:

- Activation of prior knowledge. The initial analysis of a problem stimulates the retrieval of knowledge acquired earlier.
- Elaboration of prior knowledge through small-group discussion, both before or after new knowledge has been acquired; active processing of new information.
- Restructuring of knowledge to fit the problem presented; construction of an appropriate semantic network.
- Learning in context. The problem serves as a scaffold for storing cues that may support the retrieval of relevant knowledge when needed for similar problems.
- Emergence of epistemic curiosity, since students see the problems presented as relevant and engage in open-ended discussion.

Norman and Schmidt (1992) report that students in PBL curricula are likely to be more highly motivated, better problem-solvers, and self-directed learners, better able to learn and recall information, and better able to integrate basic science knowledge into the solutions of clinical problems. Vernon and Blake (1993) confirm these claims, reporting that:

- Student attitudes, class attendance, and student moods were generally more positive for PBL than for traditional courses or curricula.
- Faculty who participated in both PBL and more traditional teaching were relatively positive about PBL.
- There was more self-directed learning in PBL programs.
- PBL students placed greater emphasis on understanding and correspondingly less emphasis on memorizing.

Vernon and Blake thus conclude that “students in PBL programs place more emphasis on “meaning” (understanding) than on “reproducing” (rote learning and memorization)” (1993, p. 556). This is generally consistent with Hadgraft’s view that by placing students in a situation similar to that in which graduates would find themselves on entering the workforce, PBL trains students “to be problem solvers and lifelong learners” (2000, p. 3).

The claims made in relation to PBL are very similar to those made for the case-learning process. Mauffette et al. refer to “an inventory of skills” being developed by the case method of learning. These include analytical skills, decision-making skills, application skills, oral communication skills, time management skills, interpersonal or social skills, creative skills, and written communication skills (2001, pp. 5–6). This “inventory of skills” resonates with Hadgraft’s conclusions that PBL draws on students’ ability to undertake group work, meeting skills, time management skills, information retrieval skills, and communication skills (2000).

Review of EMPA Program

When the first cohort of students completed their studies in 2005, ANZSOG initiated the first review of the EMPA program. The school determined that the review should focus on the curriculum, teaching methods, and structure of the program within the framework of the course adopted when the school was established. The purpose of the review was to evaluate the overall effectiveness of the program for agencies and individual participants. The review thus sought feedback from students, line managers, chief executives, and other senior staff within sponsoring agencies; partner universities; teaching faculty; and presenters.

Student Feedback

Data collected as part of the review process strongly endorsed the teaching philosophy underpinning the EMPA program. Specifically, student feedback (compiled from completed questionnaires) confirmed that the program had:

- increased students’ knowledge of public management and public policy;
- increased students’ skills and competencies;
- assisted in shaping strategic thinking;
- increased students’ ability to communicate with influence;
- helped students in developing productive relationships;
- been relevant to the workplace; and
- had a positive impact on sponsoring agencies.

Data collected from the students' questionnaires also confirmed that EMPA learning had been both applied and shared in the workplace. Students reported that behavioral changes as a result of participation in the EMPA had had a noticeable impact on individual and team performance in the workplace. Indeed, 44% of students participating in the review had received a promotion since starting the program, and an overwhelming proportion of respondents thought that the program would enhance their career progression. All students responding to the review believed that the program had provided many opportunities for cross-jurisdiction and cross-agency networking, and that they would continue to use and develop the networks established through the course.

Student feedback was especially illuminating in relation to the use of case studies and group work. Case studies were strongly supported as an effective teaching strategy and syndicate groups were also strongly endorsed for both learning and networking. Written comments indicated that students saw case studies as providing valuable insights into real issues faced by organizations, and enabling students to see how the principles and concepts underpinning their studies were applied in the "real world."

Manager Feedback

As part of the review of the EMPA program, detailed questionnaires were also sent to managers of students, asking for feedback on their experience in the program. The feedback was extremely positive. An overwhelming proportion of responses to the review reported that:

- Participants had a highly favorable opinion of the program.
- Managers were aware of students sharing what they had learned from the program (e.g., through discussion in seminars and meetings) with other staff in their agency.
- The program had a positive impact on the participants' capability and performance in the areas of strategic thinking, communicating with influence, development of productive working relationships, achievement of results, and personal drive and integrity.
- The program was of value to the agency in delivering government priorities.
- Participants had extended their networks through the program.
- The program had enhanced participants' leadership capabilities and potential.
- Managers would recommend the EMPA program to others.

Written comments from managers confirmed that they saw the program as one that broadens the experiences, skills, and knowledge base of students, who gain a much wider appreciation of the broader environment as a result of their participation in the program. Managers reported that students became more highly skilled and confident with better networks, as well as demonstrated enhanced breadth and depth of policy and management skills.

As the EMPA program only commenced in 2003, it is not possible at this early stage to reach any definitive conclusions in relation to the program and its teaching philosophy. Such conclusions would need to wait until a more thorough and authoritative assessment of the program is possible. So while any conclusions drawn from data generated by the EMPA review must necessarily be regarded as being preliminary, it is nonetheless gratifying to observe how much of the data appeared to affirm the school's basic philosophy and approach.

Conclusion

The ANZSOG EMPA program was developed with the objective of building capability to meet the emerging challenges confronting governments in Australia and New Zealand. In its design and delivery, the EMPA program sought to provide a learning experience that would be comparable in quality with that provided at the foremost schools of public policy and public administration around the world.

At the core of the EMPA program is a strong and uncompromising emphasis on teaching quality. The key features of this approach can be seen in the cross-disciplinary curriculum and learning activities, multiple delivery modes, the extensive use of group or team-based learning and assessment, in-house development of teaching material, rigorous evaluations conducted at the end of each subject, and, perhaps most particularly, the highly interactive (as opposed to passive) teaching style linked to the use of case studies throughout the program. Individually, each of these factors might set the ANZSOG EMPA program apart from most, if not all, comparable courses in public administration in both Australia and New Zealand. Collectively, they make the EMPA program unique. However, it is the innovation of implementing the principles of problem-based learning through the use of case studies and group-based learning and assessment activities that has arguably had the greatest impact to date and points to the emergence of a new paradigm for teaching public administration.

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The Problem-based Learning Approach: Issues and Concerns

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Introduction

How can we get students to think is a question that many teachers of instruction repeatedly ask. Teaching public administration and public policy, which involves a myriad of issues and concerns, necessitates a very effective instructional method that challenges students “to learn how to learn.” Many teachers, as is common in the academe, favor the content-coverage paradigm— instructing primarily through lecture-discussion. Such a teaching tradition has limitations in typical classrooms with their conventional study chairs, often with fixed seating arrangements, where small-group study areas are rare. This simply indicates that, too often in the academe, there is a preference for reflecting on theory rather than doing small experiments. Thus, the incremental body of knowledge about how students learn must be reengineered to create a shift from the traditional lecture-discussion method to a more sensitive and responsive method that will enable students achieve higher levels of comprehension. There is a need to move from traditional course-based discipline, with a passive recipient of knowledge, to active learning. Teaching ought not to be seen as a set of learned skills but rather as the application of particular knowledge, skills, and dispositions through a problem-solving approach. This makes learning more relevant to the real world, promotes critical thinking, and encourages self-directed learning. This paper, therefore, aims to put across a far-reaching teaching approach anchored on problem-based learning as practiced in the Graduate School of Capitol University, Cagayan de Oro City, Philippines.

The Main Issue

This paper demonstrates one very specific issue that faces both professors and students in public administration and policy. It derives from the fact that what is provided in the law regarding public administration and public policy in many cases does not match actual practice. The process often contradicts the policy. And the students are understandably confused. While students are exposed to a working knowledge of political theories, their learning experience

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would be enriched if it were three-dimensional: personal, pedagogical, and interactional. This trilogy explains how the learner gets into a kind of confusion as he approaches the issue/problem. The tri-dimensional approach will show how the personal point of view of the learner as well as his previous learning experiences and his interaction with the group will affect the new learning. This approach, which is discussed in the rest of this paper, encompasses the problem-based learning (PBL) method.

Moving toward the Concept

Finkle and Torp (1995) define PBL as a curriculum development and instructional system that simultaneously develops both problem-solving strategies and disciplinary knowledge bases and skills by confronting students with ill-structured problems that mirror those in the real world and to which they must find meaningful solutions. As discussed by Woods (1996), PBL is any learning environment in which the problem drives the learning. That is, before students learn some knowledge they are given a problem. The problem is posed so that the students discover that they need to learn some new knowledge before they can solve the problem. The Public Service Management Program of Capitol University has moved toward this concept through its philosophy, which maintains that learners must become active problem-solvers and problem-posers if they are to function adequately in authentic, real-world settings. The goal is to learn to integrate theory and practice thoughtfully and reflectively. An emphasis on the importance of small-group settings encourages an inquisitive and detailed look at all issues, concepts, and principles surrounding the problem, incorporating the three dimensions of the learning experience, which operate simultaneously and interrelatedly.

The functions of each dimension must be understood for a better appreciation of this approach. The personal stance is anchored on how the individual learner sees himself or herself in relation to the new learning context. According to Savin-Baden (1996), the personal stance encompasses the means by which the learner discovers, defines, and expresses the interplay between what he or she brings to, and takes from, the learning experience. The ways in which people speak about themselves and view their profession, their peers, the facilitator, and the institution are within the conceptual framework of the personal stance. If the learner is a civil service employee, then he or she places himself or herself within the PBL environment in examining how being a public servant interplays with the new learning experience. The way the learner sees himself or herself in relation to the work environment, including peers and the entire system, plays a vital role in dissecting the problem. In most

cases, this stance has to deal with the biggest share of the problem because in most cases the student's experience is in conflict with the policy itself.

The pedagogical stance, as discussed by Barnett (1994), exposes a particular constraint because it is influenced by the students' prior learning experience and learning history. The concept of pedagogical stance acknowledges the relationship between the self and what is being learned. Therefore, the pedagogical stance, for some, encompasses the notion of "reflective knowing," whereby the student not only embraces knowing but also queries it. Since public service management students come from various offices and have varied learning experiences, this is one issue that must be tackled.

The interactional stance, on the other hand, as presented by Barnett (1994), captures the way in which a learner interacts with others in a learning situation. It refers to the relationships between students within the group and between groups of students. Thus, the interactional stance encompasses the way in which students interpret the way they as individuals, and others with whom they learn, construct meaning in relation to one another. This needs to be dealt with carefully in the PBL approach because the students' interpretation of the new learning depends on how they relate to the group.

The Process

PBL entails a process in which the problem drives the learning. The approach applied in Capitol University follows this process:

- The learning content is introduced in the context of complex real-world problems, in contrast with traditional teaching strategies, where the concepts are usually presented in a lecture format. In other words, the problem comes first.
- Students are randomly assigned to small groups.
- Students in the small groups organize their ideas and previous knowledge related to the problems, and attempt to define the broad nature of the problem.
- Throughout the group discussion, students raise questions, called "learning issues," on aspects of the problem that they do not understand.
- The group records these learning issues.
- Students are continually encouraged to define what they know and what they do not know.
- Students rank the learning issues according to order of importance.

- Students discuss what resources will be needed to find out more about the learning issues, and where to find the information.
- Students share research findings with their peers.
- When the groups meet again, the students explore the previous learning issues, integrating their knowledge and connecting new concepts to old ones.
- New issues continue to be defined as students progress through the problem.

It should be noted that before students can gain some knowledge they must first identify the problem. They are expected to ask themselves these questions:

- What do I know about this?
- What is the problem?
- What solutions are possible?
- What criteria will I use to assess the solutions?
- What do we need to know?
- Who will collect which information?
- Where will we find such information?
- How can we gain access to such information?
- What other resources are needed to support the learning process?
- How can I teach my group members about this?
- How do I apply my new knowledge to solve the problem?
- What documentation is needed?
- What similar problems could I solve this way?
- How do I relate this to my work setting?
- How does this problem relate to others in my experience?
- What have I learned that could help me solve other related problems?

The Student's Responsibility

Unlike other public administration or public service management classes that follow the traditional learning style, students in a problem-based setting must assume responsibility for their own learning. They should be able to identify what information they need and what resources they will use to gain that knowledge. The resources include books, journals, online resources, and other experts. Through this process students can design their learning to meet individual needs, because they differ in knowledge, experience, and career aspirations. Allowing students to assume this responsibility, under faculty

guidance, prepares them to become effective and efficient lifelong learners—an absolute essential in a profession where more and more new types of problems and new information continuously surface. Capitol University encourages students to organize symposiums, forums, and congresses, with the students themselves facilitating the programs, inviting experts, and also acting as paper discussants on issues related to an identified problem. Sometimes they go out of the campus to visit organizations and industries to observe real-world complexities firsthand. They also conduct in-depth interviews with government officials and employees, as well as their constituencies. After the students share and evaluate the information they have gathered from the various learning sources, they decide if they need further information. If so, the research continues. If not, the students form a recommendation. PBL sessions also involve students critiquing the performance of other group members and commenting on their own efforts. At the end of each activity, the professor gives feedback to each group before the class can proceed to the next activity. What the students have learned must be applied to the problem, which is analyzed again and then resolved. A closing analysis of the learning and a discussion of the concepts and principles learned are essential. This means that before completing their work on a problem the students should reflect on what they have learned and determine if anything is missing in their overall understanding of the problem. Assessing themselves and their peers at the end of the process allows them to reflect on how their new learning relates to prior problems and prepares them for future problems, besides providing colleagues with feedback. Such an assessment is an important skill in life and in their careers.

As PBL revolves on a problem in focus, students learn to become proficient in problem analysis, hypothesis generation, and the generation of learning issues that warrant further exploration.

The Teacher's Responsibility

The faculty is the central variable in the effective implementation of PBL. Instead of lecturing and transferring information to students, he or she becomes both learning manager and coach.

The teacher selects appropriate problem situations. The selection is critical. The teacher must also ensure that appropriate physical resources, including library or electronic sources, are available. Because PBL represents a paradigm shift in learning new skills, the teacher must move from being the “sage on the stage” to serving as a “guide by the side.” As a learning coach, the teacher observes the students, strengthens poor performance, and encourages appropriate performance.

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Generally the role of the professor comprises the following:

- Facilitating groups
- Preparing the structure of the course
- Preparing the problem
- Giving guidance
- Giving assessments
- Challenging students
- Preparing for the process (including the time and space requirements)
- Supervising the classroom
- Acting as resource person
- Identifying dysfunctional groups
- Promoting good group dynamics
- Evaluating students
- Giving feedback
- Redirecting the work
- Initiating discussions

Expertise in facilitating learning is vital. The teacher must assist collaborative learning, and assess and encourage students through their problem-solving difficulties. In some instances, as is done in Capitol University, the teacher can invite outside experts to provide supplementary knowledge. In no case should the teacher dominate the learning process.

Finally, the teacher helps the students generalize their learning. As students talk about what they have learned while dealing with the problem situation, the teacher helps them understand how that same knowledge and skill has broader applications.

Conclusion

Applying PBL in the public service management or public administration program is like entering into a new learning community. PBL generates a deeper understanding of the issues, and whatever learning is gained can be applied to the problem with reanalysis and resolution. More importantly, the process teaches new problem-solving skills that can be applied more generally in the students' lives and work setting.

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Teaching Problem-based Data Analysis to Public Administration Students: A Reinforcement of Statistics and Research Methods in the MPA Program

Ester L. Raagas¹

Introduction

Unless the students in our Master of Public Administration (MPA) program are empowered, their potential for research in policy development, public management, governance, citizens' participation, delivery of basic services, program evaluation, and the like will remain undeveloped. Our MPA curriculum provides instruction in the use of quantitative techniques of analysis in policy and program formulation, implementation, and evaluation, in decision making, and in problem solving. Most of these areas require the collection and analysis of quantitative data. These requirements are being addressed by such MPA offerings as the courses in statistics and research methods for public administration. However, even after these two foundation courses and the major public administration offerings, MPA students still lack preparedness to undertake research.

For decades our tools and methods for teaching statistics and research in the MPA program were coherent and potent, but they could be hard for beginners to grasp, and difficult for nonexperts to use effectively. In my own university, for example, the statistics course is taught as a first course in graduate-level statistics, usually more than a few years removed from any statistics course taken, if at all, at the undergraduate level.

Courses in statistics and research methods for public administration are generally more of the lecture type, focusing on the important practical implications and interesting applications of these two courses, and ensuring that students are exposed to the tools essential for research in public administration. However, fear of research due to inadequacies in statistics persists among MPA students, especially those working on their thesis requirement. These are all evident to me from my years of work as a statistics consultant and now coordinator of our public administration program. Most

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MPA students have forgotten all but a few catchphrases from their research and statistics courses within a year or two of course completion.

What needs to be done? In my meetings with other research and statistics professors, we all agreed on the merits of the lecture method in familiarizing MPA students with the basic concepts of statistics and research. These are not enough, though. We need to offer a course that would reinforce the current statistics and research offerings of the MPA program and that would allow students to “put it all together,” as Hill (2003) pointed out.

This paper therefore describes a problem-based data analysis course for the MPA program that would reinforce students’ understanding of research and statistics in public administration. This course gives students practical experience by focusing on actual public administration studies and data analysis.

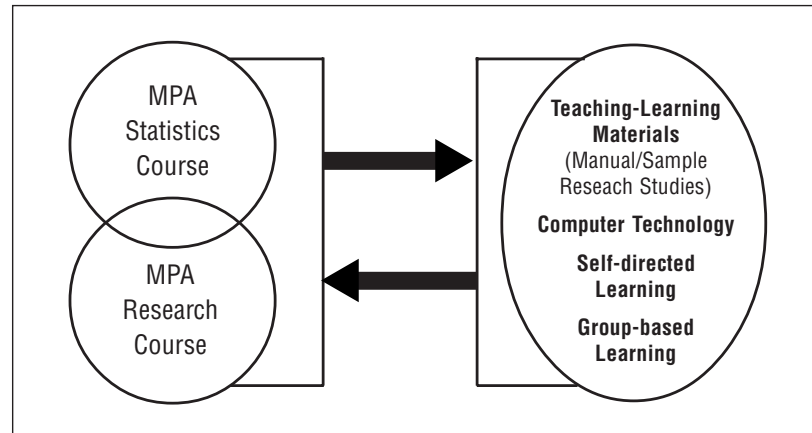
A Problem-based Data Analysis Course

Overview of the Course

This course is primarily anchored in problem-based learning (PBL). A PBL course starts with research studies in public administration rather than with the exposition of knowledge related to the discipline. These studies move students toward the acquisition of knowledge and skills through a staged sequence of problems in context, together with the associated learning materials and support from the faculty (Boud and Feletti 1991). These studies drive the process of learning; hence, the starting point of teaching problem-based data analysis is a real research study in an area of public administration that students wish to learn more about. The PBL approach is expected to develop among students a set of competencies such as adapting to and participating in change, dealing with problems, making reasoned decisions in unfamiliar situations, and reasoning critically and creatively. MPA students can also develop more their critical thinking, teamwork, time management, information gathering, and even communication skills over and above their computing skills (Hollingshed 2004). All these are vital in undertaking research in public administration, not only for one country but also considering global perspectives. These aspects of the PBL approach as applied to the problem-based data analysis course in the MPA program are summarized in Figure 1.

In many ways, PBL can be considered as an implementation of the constructivist model of learning. PBL marks a change in the understanding of the learning process, from a transfer of information from teachers to students to social interaction and individual construction of knowledge. According to

Figure 1: The Problem-based Data Analysis Course as Reinforcement of Statistics and Research Methods in the MPA Program



this model, people construct knowledge by making sense in terms of what they already know. Constructivism, on the other hand, holds that people can understand only what they have constructed themselves (Leidner and Jarvenpaa 1995). Learning is an active process where learners develop their own mental models. In fact, in PBL, the students' own questions, experience, formulations, and conceptions of problems serve as the basis for learning. Furthermore, PBL makes the group another important resource for the learning process, extending constructivism to include social interaction and collaboration among the students in a group.

The success of the problem-based data analysis course depends greatly on the accompanying teaching materials, computer technology, and the educator's capability. We created in-house materials to fit the course design in tandem with the studies conducted on policy implementation. Teaching materials, such as the *Operation Manual for Data Analysis*, were prepared by the professors who teach the course. The manual combines in one place exposure to a research problem on public administration, the research instruments, instructions for encoding responses, computer commands, approaches to analyzing the data sets according to the research problem, and interpretation of results. Thus, in the problem-based data analysis course, most of the time and efforts of the faculty are spent before the course, developing the teaching materials such as the sample research studies and the major reference material that will guide both the MPA students and the faculty in achieving the objectives of the course.

Development of Cases and Course Materials

In preparing this course, I opted to use public administration research studies that I had supervised as MPA program coordinator. So I had easy access to the original data and insights into the investigators' reasons for doing the studies and the problems they had while preparing and doing the studies. Another consideration in the choice of the studies was their timeliness and relevance to public administration in the Philippine setting. These research studies were also rated above average in overall quality by the panel of examiners in our MPA program, adding credibility and importance to these studies in the eyes of the public administration students.

The major reference material, in the form of a manual, blends a sample study in public administration and the use of spreadsheets for common statistical computations. A problem-based data analysis course when based on spreadsheets becomes more accessible to different types of students and deepens students' understanding of the statistical tools needed for research in public administration.

The manual introduces the sample study (its framework, the problems to be answered, the instruments used in the gathering of data, and the like) and gives in great detail the steps involved in data analysis and statistical computation, the requisite mouse clicks, and computer keystrokes.

Spreadsheets and Statistics in Data Analysis

This course also relies heavily on computer technology, including the use of the online databases of the university and spreadsheet manipulation. The spreadsheet itself is a laboratory, one that presents the stages of a calculation, showing much detail. If the calculation is incorrect, the spreadsheet gives clues as to what is wrong. This feature makes a spreadsheet a vehicle for interactive learning.

One benefit of a spreadsheet is that it automates calculation. A spreadsheet provides easy access to descriptive statistics and common statistical tests. For example, after just a few clicks of the mouse and the use of the Excel "add in" feature, the statistics are all ready. Instead of spending much time on statistical computations, the students can now focus on the research itself and grapple with the implications of the statistics for public administration and governance.

Students would then also be eager to sharpen their spreadsheet skills for their theses and other courses, as well as in their research activities in their respective offices. Using spreadsheets for statistical computations speeds them up considerably and thus removes a major barrier to research. And with success in spreadsheet use come positive reinforcement, self-confidence, enthusiasm, and the ability to apply the new skills and knowledge in novel ways.

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Organization of the Course

The practical implementation of PBL does, of course, vary. The model adopted for the data analysis course is a combination of “self-directed learning” and “base group” sessions, where the students work in groups of five to seven to complete the course. As students pursue solutions to their assigned research studies, each one tends to assume more responsibility for his or her own learning.

Before each student or group of students starts to work on the required tasks, the faculty gives a lecture or its equivalent to set the borders of the session and to make sure the students do not lose their way in the research study. The lecture, plus a demonstration of spreadsheet manipulation and unobtrusive facilitation, is to guarantee that the students cover the relevant material for the course.

The problem-based data analysis course follows the prescribed 48 class hours in a semester. It is divided into 16 3-hour sessions. More than half of the time, the students are left to themselves; however, the faculty and students do meet for seven sessions, distributed as follows:

- Orientation on the course and introduction to public administration research studies to familiarize the students with the objectives and background of the research study and other pertinent information (1 session).
- Demonstration of data encoding on spreadsheets and generation of descriptive statistics and test statistics (2 sessions).
- Evaluation of students (1 session midway through the term and another at the end of the semester).
- Demonstration of presentation of research outputs using PowerPoint, hyperlinks, and online databases to bring out research insights and implications (1 session).
- Student presentation of research outputs and critique of presentations (1 session).

The first discussion is aimed at understanding the research study. Students are led to recognize how the research questions, the kind of data gathered, and the research design influence the selection of statistical methods. The assumptions underlying various statistical methods and ways of testing these assumptions are reviewed and considered. The faculty also demonstrates spreadsheet manipulation for statistical computations, complete with the requisite mouse clicks and keystrokes on the computer.

The students use the remaining nine sessions to analyze the research study assigned to them. They have the option to do the task initially by themselves and then in groups so that they can meet the deadlines. If they have short questions, they can send these by e-mail or text messages to the faculty.

Experience with the Course

Evaluation

This course has been presented for six semesters in our MPA program, with class size varying from 10 to 14 students. All the students had taken the required courses in statistics and research methods before this course. Almost all had very minimal knowledge of how to navigate spreadsheets, and average familiarity with the internet and word processing.

The MPA students enrolled in our university work full time in government agencies and local government units, and, like other professionals working toward a graduate degree, have considerable personal and professional constraints on their time spent in school. With the problem-based approach to teaching data analysis, students have time options for their learning experience. They can even work at home, since the computer technology requirement is very minimal.

The results of a brief evaluation of the course are shown in the table. There is a general trend in the students' appreciation of the course, particularly in the integration of statistics, research, and computer technology. However, the results indicate difficulty in achieving better time management. This is very evident among the students who found it difficult to use the online databases of the university. This activity needs time to sift through the materials. The statistical computations, however, posed no problem because most of the students have personal computers at home or laptop computers.

After the course, most of the students consulted me concerning the analysis of data for their theses. They displayed less statistics-anxiety than other students who had not taken the course. When consulting me, these other students would begin with "Ma'am, I am very poor in statistics; do you think I can finish the thesis requirement?" or, worse, "Is there anybody you can recommend who will analyze my data for a fee?"

Those who had taken the course in problem-based data analysis, on the other hand, tended to focus more on the research itself and to seek confirmation that the statistical tools they were using were the most appropriate. This is a big improvement on the very extensive and time-consuming research and

Results of Evaluation of the Problem-based Data Analysis Course

(No. of Respondents = 34)

Scope of Evaluation	Comments
1. Objectives of the course	97% of the respondents indicated that the objectives of the course were achieved.
2. Manual	<ul style="list-style-type: none"> • “very useful; empowers us to analyze our data” • “provides basic steps in a way that even neophytes can quickly learn computer applications, especially spreadsheet operations” • “simple and direct instructions; user-friendly” • “very useful but not perfect; statistical interpretations of test results should be included” • “tailored to ‘computer illiterates’ (thanks to the authors!)”
3. Research study assigned	<ul style="list-style-type: none"> • “the research study was a learning experience—the research process, content, statistical results, and insights were very interesting and revealing; the study enabled us to be open-minded about the results and, hence, minimized biases” • “gave us insights into the government’s policies for merit promotion” • “I learned a lot, especially how to organize the data” • “I learned a lot from the research study; it gave me a feel for how to go about thesis writing, especially how to analyze data” • “I had difficulty looking for a theoretical framework and insights, and using the online databases”
4. Statistics and research	<ul style="list-style-type: none"> • “we are now trained to handle and interpret the data gathered” • “statistical computations and data analyses are no longer intimidating” • “complemented and integrated concepts in statistics and research” • “I can now relate my learning in statistics to research” • “I learned more about the basic concepts of research and the use of statistics in research” • “I learned how to do research reinforced by online databases” • “for ‘non-math’ minds, statistics became doable; I learned how to conduct research that leads to sound and valid findings” • “I learned a lot, but I had limited time to establish the theoretical framework” • “strengthened my statistical capability; results could be checked easily” • “my first time to access research journals online”

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statistics consultations I used to have before the offering of the data analysis course. I guess this is where the course has helped us most in the MPA program. Besides promoting MPA students' capability for self-directed learning, the course greatly improves students' preparedness to undertake research in public policy and governance. There is also better appreciation of the usefulness of computer technology in research activities.

Challenges

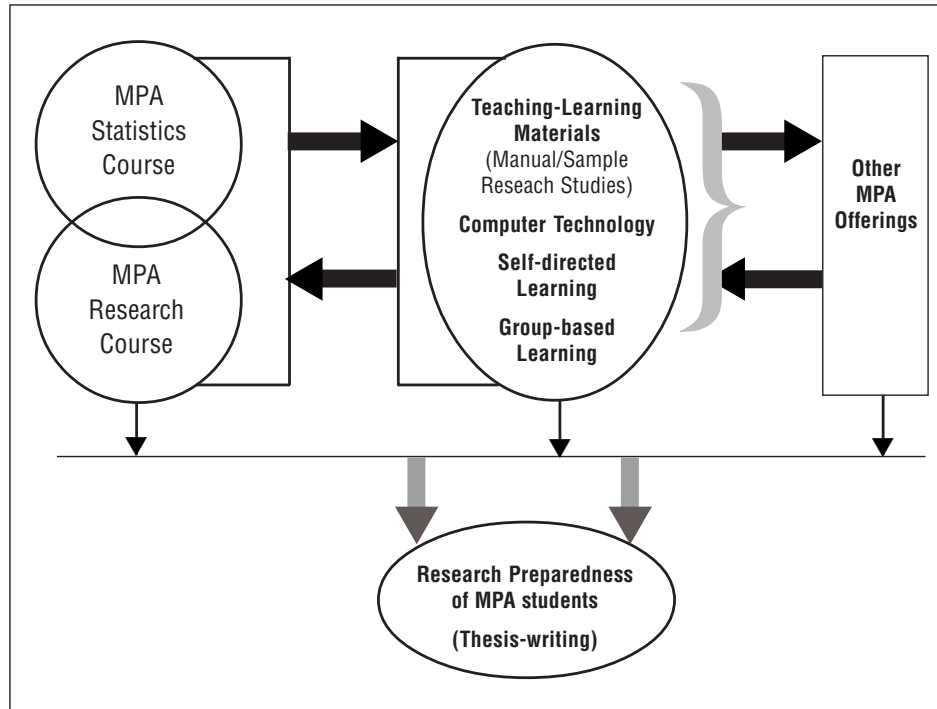
The problem-based data analysis course was not without its challenges. Most of the students needed more than the prescribed time to take complete responsibility for investigating all the learning issues related to their research studies—particularly public administration theories; computer manipulation for the required statistics, graphs, and tables; and use of the university's online databases.

The faculty also spent time answering short queries sent by the students through e-mail or text messages. Otherwise, the faculty met the students a group at a time to provide essential supplementary information without encouraging passive student behavior.

Summary and Conclusion

Our experience suggests that the use of well-prepared teaching materials and actual studies in public administration in conjunction with common statistical software helps overcome the traditional barriers to the teaching and learning of statistics and research methods in public administration. Problem-based data analysis appears to permit a more thoughtful and detailed examination of the concepts taught in the courses in statistics and research methods, making MPA students better prepared to do research in public administration (see Figure 2) and management in general, and in their respective agencies in particular.

Figure 2: Major Objective of Problem-based Data Analysis Course



MPA = Master in Public Administration

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Assessment Center Simulation as Problem-based Learning Tool for the MPA Program: A Field Study in Taipei, China

Irving Yi-Feng Huang¹

Introduction

Public personnel administration involves topics and issues that public managers, employees, and personnel managers should be familiar with. The main academic subjects in this field usually give the basic historical and institutional context of personnel administration, recruitment, human resources selection, compensation, training and development, and appraisal. Classes in this field not only present learners with concepts related to human resources management in public agencies but also encourage learners to prepare for the required competencies.

Problem-based learning (PBL) is literally *the problem comes first* (Boud 1985, Boud and Feletti 1991, and Woods 1985, as cited in White 1996). PBL involves several areas of concern. Unlike the traditional lecture method, in which only the instructor presents and discusses information (Savin-Badin 2000, as cited in Samford University n.d.), PBL makes the instructor a facilitator of group process and learning.

Introducing the context of complex real-world problems is the most essential component of PBL. The instructor provides the students written information to study before class. With this information and the lecture given in class, students must come to grips with a problem and decide what to do about it. To solve problems, students must identify what they know and what they do not know, and must learn by working either individually or in small groups. PBL does not look for students to give simple answers to those problems. Students should try to go in depth and may pursue knowledge from other resources instead of the textbook and discuss the problem in group meetings (Savin-Badin 2000, as cited in Samford University n.d.).

PBL gives students opportunities to focus on identifying learning issues applicable to the resolution of problems during the learning process. Laying emphasis on critical thinking skills, understanding, and the ability to learn how to learn and work cooperatively with others, the PBL approach, if applied

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successfully, can energize learners and catalyze institutional reform in education (Samford University n.d.).

The distinction between PBL and other forms of learning is often unclear because they share common features (White 1996). The difference between case-based and problem-based learning is particularly difficult to ascertain. For the case-based format, the students are provided with written case histories before the lecture and an in-class discussion about content and concepts follows. PBL focuses more on problems than cases, and more on what students do, rather than what the faculty does (MacDonald and Issacs 2001, as cited in Samford University n.d.).

The Assessment Center has been adopted in human resources selection and development in both public and private organizations. Assessment Center simulation is broadly applied because of its reliability and validity. In its earlier stage, the Assessment Center focused on the purpose of selection. Recently, the Developmental Assessment Center (DAC), which provides assistance in individual career development, was established as the contemporary trend of the Assessment Center. After job analysis, the establishment of a competency model, and the collection of critical incidents related to the target position, simulated exercises are designed and these serve as the assessment tools. During some exercises, assessors observe trainees' behavior and performance, and prepare the reports on the results after a meeting among the assessors. Multiple exercises give opportunities for trainees to demonstrate the range of their abilities by experiencing a variety of simulated exercises, which represent various managerial issues that managers may face in the workplace. Thus, the exercise gives trainees opportunities for PBL.

This research is on the application of the in-basket exercise, Leaderless Group Discussion (LGD), and written-analysis exercise—the simulation exercises commonly used in the Assessment Center—as instructional instruments in the Public Personnel Management course. The field study was conducted among students currently enrolled in Master in Public Administration (MPA) programs in Taipei, China to probe into the effects of applying these simulation exercises in the MPA programs. This article provides recommendations based on the results of the field study, to introduce Assessment Center simulation as a part of integrated instructional methods to make learning more effective and to improve the problem-solving abilities of public managers.

Literature Review

Popularly applied in Western countries, the Assessment Center is a set of measurement instruments. The idea of the Assessment Center is to apply several

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measurement tools to assess candidates' knowledge, skills, and abilities. The dimension for the assessment is set according to the goal of the human resources selection. During the assessment, candidates have opportunities to display their knowledge, skills, and abilities by making decisions in the simulated situations. Trained assessors observe the assessment process. They observe candidates' behaviors and determine candidates' grades during the meeting of assessors. They then decide the suitability of the candidates for the target positions (Huang 2004).

The Assessment Center is designed according to the job analysis, which determines the core competencies needed for certain jobs. The assessment assumes that only candidates with certain capacities can accomplish organizational goals and missions effectively. Thus, these core competencies are adopted in the assessment design and dimension. This kind of human resources method has the following advantages: (i) the content of the assessment is compatible with the real task of the target position, ensuring a valid assessment; and (ii) the core competencies are the dimension for the recruitment, ensuring that the recruited staff bring their knowledge and skills into full play effectively in their work. The most frequent assessment tools are the in-basket exercise, written-analysis exercise, LGD, interview, and oral presentation (More and Unsinger 1987).

The in-basket exercise is the most popular assessment tool in the Assessment Center. It measures the candidates' ability to solve problems, make decisions, and develop ideas. A complete in-basket exercise has three parts: scenario introduction, the exercise proper, and relevant resources and documents. The scenario usually includes a plot, an organizational chart, an employee task list, and mail, e-mail, and other messages and memos such as financial reports, project schedules, and task reports from subordinates. During the exercise, candidates play a member of the organization and deal with problems in a given situation. The exercise procedure and scoring dimension are introduced to candidates before the exercise. They must read the provided information during the exercise and decide which cases should have priority and which ones can wait. Then they are required to write down the handling procedure such as setting priorities, authorizing others to deal with a certain case, creating message reply and forward lists, and summarizing solutions to each problem, including the decision made, responsibilities delegated, plans, and procedure for evaluating progress.

A traditional in-basket exercise usually has the candidates working independently, after which they are interviewed about their actions by the assessors and then graded. Recently, the practice-and-assess method of in-basket exercise has changed because of the effects of the internet and the popular

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Situational Judgment Test (SJT). For instance, some in-basket exercises now tend to be multiple-choice and require candidates to answer questions on a computer. Most cases have been modified into e-mail format. A computer program automatically calculates the scores of each candidate for the different abilities. Thus, the role of assessor in the in-basket exercise is gradually becoming more minor (Huang and Cheng 2004).

The written-analysis exercise tests the candidates' practical ability. Candidates are given a paragraph describing problems faced by an organization. They must then figure out solutions and sketch out operational plans and methods.

LGD divides candidates into groups, each one with five to six members. Without an appointed leader for the group, each group member gets the same opportunities for participation and presentation. There are two types of group discussion. In the first one there are no appointed roles for the group members. This type of exercise emphasizes candidates' team dynamics. The other type of group exercise appoints roles for all the group members and tests each individual's ability.

The oral presentation includes presentation in formal meetings, informal presentation to managers, and focus groups. Candidates are given a job-related subject and are given time to prepare before presentation. The assessors are the audience. After the presentation, the candidate must answer questions from the assessors.

In the interview exercise, the interviewer usually plays the candidate's manager and questions the candidates about one or several job-related issues. The interviewer can be someone familiar with the position, not necessarily the assessor. The assessors can observe the whole interview process from the other room or by camera.

Other assessment tools are also used in the Assessment Center depending on the needs of the position. For instance, to measure managerial ability the management exercise often simulates departmental meetings where the candidate plays the top manager and has to deal with difficult issues. The progress of the meeting is usually videotaped and reviewed by assessors to see if the candidate is capable of being a leader and displays his or her communication ability, influence on others, flexibility, planning ability, creativity, and judgment under pressure and limited time (More and Unsinger 1987).

In recent years, time and cost considerations have led to the scaling down of these work sample tests into simplified tests like the SJT, in written-exam format. The SJT, which used mostly multiple-choice questions, made the assessment less complex (Huang and Cheng 2004).

Exercise Design and Arrangements

According to the process and method of the Assessment Center, the author edited teaching materials from public administration activities, including the most common tasks for public personnel administrators such as handling official documents, interviewing candidates for promotion, and holding meetings. This study therefore chose the following three types of simulated exercises that are commonly used in the Assessment Center: in-basket exercise, interview exercise, and LGD exercise. (For the competencies covered by each exercise, see the appendix.)

Exercise Planning

This study looked into the feasibility of applying each type of exercise in class instruction. The instructor played the role of assessor. MPA students taking the Seminar on Public Personnel Administration class at Tamkang University played the candidates. Instead of grading candidates according to their actions right after the exercise, the teacher recorded the exercise and watched the videotape after class, evaluated the students' performance, and gave the students suggestions for their future learning.

The interview exercise allowed the students to experience the interview process firsthand and practice their interview skills. Also, by playing the role of applicant, the students were able to practice how they might answer the questions asked. The first LGD exercise was a performance evaluation exercise. Students decided as "committee members" how to select outstanding employees. Compensation grading is a significant component of public personnel administration. The second LGD exercise therefore required the students to evaluate six job positions using the point system, and to decide the points for each position after discussion.

Conduct of the Exercise

In-basket Exercise. The students were given a description of the exercise, an organization chart, a work calendar, and other documents. They were asked to play a new personnel manager of a local government. The "new manager" had to deal with all the documents on the desk on the very first day on the job, using personnel administration skills related to selection, training, employment, promotion, compensation, and insurance. In view of the limited time, there were only 12 documents in the in-basket of the "personnel manager." The procedure was as follows:

- The instructor presented the scenario for the exercise.
- The students wrote notes regarding actions to be taken on the

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documents and affixed the notes onto the 12 exercise materials—all within 60 minutes.

- The instructor guided the students in discussing the process of handling each document.

Interview Exercise. The interview exercise simulated the selection of a human resources planning commissioner for a local government. The instructor played the applicant, and the students played the personnel manager and other recruitment staff. The procedure was as follows:

- The students read the job description for the position of human resources planning commissioner and the personal data and résumé of the applicant. Then they discussed the questions they wanted to ask during the interview.
- The students were divided into groups and alternately took charge of the interview.
- The instructor guided the students in reviewing the interview process and provided pointers about the selection interview.

LGD I: Promotion Review Committee. The promotion review exercise simulated the annual selection by a local government of its top performer. The exercise materials included descriptions and data information about each candidate from each sector. The students played members of the Promotion Review Committee and discussed how promotions were to be distributed. The procedure was as follows:

- The instructor guided the students through the reading of the materials and gave them sample arguments and defense strategies for the simulated committee meeting.
- The discussion was divided into two stages. First, the students played unspecified roles as members of the committee. All of them gave fair and objective reasons for choosing a certain candidate. Second, the students were assigned different roles. Each one played the sector manager of one of the candidates and fought for the candidate's promotion, for the honor of the sector.
- The instructor guided the students in reviewing the process of discussion and gave them more information on the procedure of the meeting and the role of the personnel manager.

LGD II: Human Resources Development Committee. Students played members of the Human Resources Development Committee of a local government. They had to prepare job evaluations for six clerks according to the main tasks of the clerks and other basic information. The grading format was modified from Kelly and Whatley (1977). It included 11 evaluation factors, each divided into six grades. The procedure was as follows:

- The students read the exercise materials and evaluated the employees according to the designed evaluation format.
- The students elected a “chairman” among themselves before the discussion.
- The “chairman” listed the grading results of each “committee member” on the board. Then the “committee” eliminated those with unanimous results and discussed only those about whom the “committee members” disagreed.
- The instructor guided the students in reviewing the evaluation process and showed them how job evaluation is related to position ranking and compensation.

Discussions and Recommendations

Review of the Process

Generally, the students had positive impressions of the exercises applied in class. They thought these lifelike activities made the curriculum interesting, helped them understand “real life” personnel administration, and made them aware of the managerial skills they needed to improve. However, some parts of each exercise must be improved. For instance, given the limited time, the students only had individual exercises and no group discussion in the in-basket exercise. They thus missed out on opportunities to share opinions and experiences.

In the interview exercise, although the students prepared and listed interview questions before the exercise, asking questions along the list deprived the interview process of easy and smooth progression and created an uncomfortable atmosphere. Also, the instructor who played the applicant was usually interview-savvy enough to switch roles with the interviewer and lead the interview.

In the Promotion Review Committee exercise, student attention first centered on selection, instead of the appraisal standards. Then when the students played the part of sector managers of the candidates, conflicts or

arguments in behalf of the candidates were rare because the students lacked empathy with them. In other words, these “sector managers” seldom fought for their subordinates.

In the Human Resources Development Committee exercise, for lack of understanding of the purpose and methods of job evaluation, the students could only grade the candidate according to the designed evaluation format. In the discussion after the exercise, the students found two major problems with the job evaluation exercise: it provided unclear grading dimensions, and the “committee members” had different grading standards.

Exercise: Bridge between Theory and Practice

There are always differences and gaps between theory and practice. The academic circle complains that the pragmatists give too much weight to insignificant details. The pragmatists, for their part, claim that the academic circle talks only about theories and does not teach useful ideas for practical tasks. J. W. McGuire believes that managerial theories and ideas lack surprising breakthroughs and rarely make further progress—the so-called failure of theory (Glueck 1985). To solve real-life problems, the pragmatist continually pursues more meaningful theories to explain and predict what takes place in organizations.

When analyzing managerial behavior, Mintzberg (cited in Glueck 1985), pointed out that terms as organization, coordination, and control do not describe real management. These are just abstract words that scholars use to describe the management that they do not know.

Thus, from the teaching standpoint, instructional theories and concepts give students basic knowledge, while the exercise materials help them check their knowledge against real-world situations. Exercise materials give newly employed personnel administrators an overall view of personnel administration and help them become familiar with their tasks in a short time. And personnel management knowledge provides them with concepts that they can use to make changes in the system. Therefore, these two teaching methods, when combined, help cultivate institutional innovators, instead of routine followers.

Exercise Method of Teaching

Group exercises have been applied in management classes for years. Taiwanese psychologists as Jing-Ji Wu and Mu-Lan Shu have made significant contributions to this field. Using case studies also achieves good results in business management teaching. The exercises in this study focused on public personnel administrators and strove to use real-world situations, to mold students into personnel managers with the requisite knowledge, skills, and abilities.

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During the role-playing exercise, the students found it difficult to completely get into the part. They knew each other so well that they had problems pretending to be other people. The instructions were also unspecific. And the students often needed to make assumptions during the discussion. The exercises should contain more relevant information and encourage the participants to plunge more readily into the role playing.

The purpose of the LGD exercise, on the other hand, is to have the participants interact with each other in more unstructured situations than in other exercises. Through the interaction, students express their knowledge and skills in different aspects. A student with leadership skills might lead the group during the discussion.

Most students, however, rarely shared their opinions especially at the start of the discussion. During the discussion, most gave their opinions but seldom questioned the opinions of others. This reserve may have to do with the traditional emphasis on harmonious relationships in Chinese culture. Thus, when arranging roles for an exercise, teachers must increase the potential conflicts between roles to stimulate discussion.

The exercises nonetheless made the students realize that they did not know enough about organizations or personnel administration laws and regulations. During the Promotion Review Committee exercise, for example, students found themselves unfamiliar with the meeting procedure. The Human Resources Development Committee exercise, on the other hand, required students to improve their understanding of compensation theory. The exercise method of teaching can therefore be a useful tool for evaluating learning.

Relationship between Instructors and Students

Experience-based learning emphasizes that learning is every participant's responsibility. The instructor only guides and assists. This study found that students still rely too much on the instructors during the learning process. Students pointed out that during the discussion, without the instructor's explanation, some of them could not agree or decide which opinion was right or wrong. Most students obviously thought that only the information that came from the instructor was right.

Some students believed that the exercises during the class helped them think about the subject. Instead of receiving the answers from the instructors, the students spent time and effort on the learning process before they obtained the final outcomes. The students also believed that the situations they dealt with in the exercises mirrored real-life situations in their future tasks.

To the instructor, discussion was just a way to get students interested. It has to be used in coordination with references and assigned reading from the textbooks so that this teaching method can really benefit the students.

Limitations of the Study

Constrained by limited time and resources, this study arranged only four exercises, which did not touch on all personnel administration activities. In the future, teaching materials in other significant topics in personnel administration, such as human resources planning, training and development, performance appraisal, and labor-management disputes, should be included. And the purpose of each exercise—for instance, the abilities and skills for a given job that students can expect to learn—must be clearly defined according to the job analysis.

The lectures should be supplemented with exercises. The lecture and the exercises should be coordinated to improve learning. Also, the lecture should contain both basic theories and relevant laws and regulations, and their explanations and examples, so that the students can understand how the organization relates to its environment.

Furthermore, this study did not discuss instructional evaluation. Future studies on this teaching method should deal with both the quality and quantity of learning. The success of the method cannot be determined by numbers or grades on questionnaires or tests but through sustained, long-term observation and interaction between the instructor and students. Case studies may be prepared to help determine the success of the teaching method.

Conclusion

PBL allows the students to find the answers to problems themselves instead of receiving the answers from the instructor. The Assessment Center method attempts to create problems by designing exercises, and requires students to find the answers through interaction. In the process, the students may find the underlying problems.

Students benefit from this kind of exercise by discussing and sharing their experiences. Exchanging experiences promotes originality in students and encourages them to think as a group. However, students often focus on individual experiences during the discussion and ignore the fundamental problems. The composition of the group should be made more varied so that students not only benefit by sharing their experiences but also accomplish the objective of the exercise.

Another problem encountered during these exercises is that some students harangue and strut their own experiences instead of spending time reading research publications. They neglect research results on the excuse that “theories cannot resolve practical issues.” To lessen grandstanding, MPA instruction should comprise four stages: reading, practice exercise, experience sharing, and discussion.

Whether recording the whole exercise and keeping the videotape for review after class is time well spent and effective will be discussed in a future study.

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Appendix: Assessment Center Exercises and Competencies Covered

Exercise	Type	Competencies Organization and Planning	Leadership	Communication	Analysis	Flexibility
HR Manager Exercise	In-tray exercise	✓		✓	✓	✓
Selection Interview	Role playing	✓		✓		✓
Promotion Review Committee	LGD		✓	✓	✓	✓
HR Development Committee	LGD		✓	✓	✓	✓

HR = Human Resources, LGD = Leaderless Group Discussion

