Planning Education in Malaysia – Between Frontiers and Boundaries

A. Razak Jaffar¹, M. Rafee Majid, Foziah Johar and Norsiah A. Aziz

Department of Urban and Regional Planning
Universiti Teknologi Malaysia
81310 Johor Bahru
Johor
¹ Corresponding Author: b-razak@utm.my

Abstract: It has been more than ninety years since the first town planner was appointed in Malaysia and more than forty years since the first planning school was established. Over the years the field of urban and regional planning as well as the training of its professionals has evolved with ever-changing challenges and situations. This paper looks back at the history of planning education in Malaysia with a focus on the evolution of urban and regional planning education at Universiti Teknologi Malaysia (UTM). It covers the department's effort to demarcate the boundaries of planning education in the face of the expanding frontiers of urban planning theory and practice.

Keywords: Urban Planning, Planning Education, Planning Practice, Universiti Teknologi Malaysia

1. INTRODUCTION

Urban Planning can no longer be regarded as a “young” field in Malaysia, given that the first town planner¹ in Malaysia was appointed more than ninety years ago. However, urban planning education in Malaysia is only about half that age. While it could not be considered “old” surely it should have passed “puberty” and reached “maturity”. Planning education could not, should not and have not remained stagnant. It has to evolve with time and the ever-changing theories, practice and challenges that set the frontiers for urban planning. Given the expansive nature of the frontiers of urban planning and the restricted designated period for educating planners, manageable planning education has to demarcate its boundaries. This paper looks back at the history of planning education in Malaysia with a focus on how urban and regional planning education at Universiti Teknologi Malaysia (UTM) evolves. It covers the department's effort to demarcate the boundaries of planning education in the face of the expanding frontiers of urban planning theory and practice.

2. THE EVOLVING NATURE OF URBAN PLANNING

The earliest known settlements of Old Jericho (7000 BC) and Catal Huyuk (6000 BC) are testimonials that planning has taken place since the dawn of civilisation. These settlements have shown evidence of planned street network, drainage and sewage system and separation of land uses. Within the last century, however, planning has taken on a rather different form. ‘Modern’ urban planning emerged in the latter part of the 19th century, in response to the chaotic situation in most major cities, brought about by the Industrial Revolution. There are several characteristics of this modern approach to planning. [¹] First, planning was seen as an exercise in the physical planning and design of human settlements, with social, economic or political matters lying outside the scope of planning. Planning

¹ Charles Compton Reade was appointed the first Government Town Planner for the Federated Malay States (FMS) on 18th January 1921 and proceeded to promote the activity of town planning in the colony.
was a technical activity to be carried out by trained experts with relatively little involvement of politicians or communities. Second, it involved the production of master plans depicting an ideal vision of future city; to implement, a statutory land-use zoning scheme was employed. The ideal urban forms that master planning promoted were specific to the time and place from which they emerged. For example, Ebenezer Howard’s Garden City attempted to recreate English village life by combining the good rural and urban qualities and through controlling their size and growth. In France, the ideas of Le Corbusier established the ideal of the ‘modernist’ city, which came to be highly influential internationally and still shapes planning in many parts of the world.

Although the origins of master planning were strongly influenced by values in developed countries, such approach spread to almost every part of the world in the 20th century through processes of colonialism, market expansion and intellectual exchange; often, for reasons of political, ethnic or racial domination and exclusion rather than in the interests of good planning. Most colonial, and later post-colonial, governments also adopted the tradition of protecting private property rights at the same time advancing the public interest by maintaining control over aspects falling under planning and zoning ordinances.

The idea of master planning has been subject to a major critique in the planning literature. It has been argued that the master planning approach did not address the real situation and the dynamics of rapidly growing cities particularly in developing countries which faced the issues of inequality, poverty and informality. Many plans developed at the height of modernist planning in the 1960s for example failed to anticipate changing social patterns (for example in household size and structure), and the impact of the 1970s recession on economic activities, discrediting this form of planning. [2]

In the developed countries, in the face of a declining economy and pressure from the New Right politics of the 1970s and 1980s planning began to weaken and give away more control to markets which saw planning reorganized to promote the interests of economics. But after about a decade, in the late 1990s, there was a u-turn as it became clear that unplanned and market-led urban development was having serious and negative environmental and social impacts. Planning is again seen as important and new approaches are employed to respond to the need to reorganize, reshape and refocus planning systems so that they respond to urban priorities. In some parts of the world, planning processes and plans become more participatory, flexible, strategic, and action oriented.

In the 21st century, however, urban planning faces new major challenges such as rapid urbanization, climate change, and resource shortages and costs particularly of fuel and food that are currently leading a worldwide return to an interest in planning and the roles it might play in development. The 2009 Global Report on Human Settlements points to the importance of the contextual challenges of rapidly growing, sprawling cities, with high levels of poverty and inequality. The links between planning, forms of urban development and sustainability as well as disaster management are increasingly recognised. The nature of cities needs to change which implies the need for planning. New forms of strategic spatial planning are emerging internationally as cities and regions attempt to adapt to economic restructuring and to the need to collaborate across growing city regions. [2][3]

Although planning as a discipline has evolved from the design of the physical framework of human life to a much broader set of concerns in the contemporary era, in many regions, and particularly in developing countries, the early 20th-century idea of master planning and land-use zoning, used together to promote modernist urban environments, has persisted to date. In many parts of the world, citizens are still excluded from the planning process or informed only after planning decisions have been made. [4] As a result of the persistence of older approaches to urban planning, there is now a large disjunction between prevailing planning systems and the nature of 21st-century cities. It is expected that by the middle this century, 70% of the world population will live in cities, with the majority in developing countries. Any consideration of the future of urban planning therefore needs to take place within an understanding of the factors which are shaping the socio-spatial aspects of cities, and the institutional structures which attempt to manage them.
3. THE CHALLENGE OF PLANNING EDUCATION

According to Alonso [5], planning education refers to the various flavors of planning and different national naming conventions. It encompasses education in universities and post-secondary educational institutions addressing urban, city, town and country, regional, rural, and development planning and any combination of or relating to continued professional education and development. Planning education at university level started during the early 20th century and most of the planning courses taught at that time were for the benefit of architects, landscape architects and engineers who wished to expand their practices into the city planning domain. [6] Civic design was the first cited university-level urban planning course at the University of Liverpool in 1907. [7] Those early years of planning education were firmly set in the design profession tradition, while drawing on the growing sentiment for scientific applications in government and industry. [8] Growth in the early decades was modest, with only nine programs in the United States by 1941. [8] By the end of that decade, however, design was no longer the sole orientation of planning schools in the United States, with new schools formed in social science settings, and other schools in design college settings admitting students whose prior work had been other than in a design profession. [9][10][11] Britain was quick to join the adoption of a social science orientation. By the mid 1950s, the idea of a ‘generalist with a specialty’ framework had been articulated for University of Chicago planning students. [12] This framework spread widely and became an important component of US accreditation criteria when those began in 1984. [13]

Stepping out of the design orientation and adopting applied social science tools, planning schools began to venture into wider ranges of issues and policy concerns including transportation, housing, social welfare, environmental resource issues and economic development. By the late 1970s, planning schools in advanced countries, particularly in the United States, covered much of the range of domestic policy matters affecting human settlements. However, scholars and practitioners from other fields felt that the boundaries of planning had become too diffuse. One oft quoted question is that of Aaron Wildavsky, a policy scientist who in 1973 famously asked: ‘If planning is everything, maybe it’s nothing?’ In the United State, planning schools and planning-related instruction became commonplace in departments of geography, urban studies and other social sciences. The growth, though, was not without problems. There was criticism of loss of technical content, partly attributed to the adoption of the ‘generalist with a specialty’ model. British schools eventually moved away from the model beginning in the 1970s. [14]

The spread of planning education beyond Europe and North America dates from the late 1940s, with the establishment of two programmes in Australia in 1949. Planning programmes in the developing countries date from at least the mid 1950s with the establishment of the School of Planning and Architecture in New Delhi (India) in 1955 and the planning programme at Ghana’s Kumasi College of Arts, Science and Technology in 1958. [15] Surprisingly, many countries including some in the European periphery did not have any planning degree programmes until the 1990s. The programmes in developing countries most often reflect colonial ties and it is quite common for the programmes to be housed in departments of geography, architecture or other related fields. [16]

Within the last 100 years, planning education has grown exponentially and diversified broadly. Planning education in most schools has been re-conceptualized from a rational-modernist perspective to another perspective that emphasizes deliberative and participatory processes that advance civic engagement and promote citizen participation. Many schools have moved from geographically specific approaches to integrated one-world approaches. Sustainability and social equity are now fundamental to planning curricula in many schools. Planning education is conducted at both undergraduate and postgraduate levels, with different countries emphasizing one or the other, but seldom both. Expectations for faculty credentials and faculty work accomplishments vary widely by country and in some instances by institution within a country. Planning schools frequently collaborate with educational units in related fields, often architecture, engineering or geography.

As a system, planning education has moved vigorously towards theories and tools that respond effectively to the new challenges of 21st-century planning. The diffusion of these innovations has not been complete enough, however. Curriculum reform is needed in many planning schools. Schools which still treat planning only as a design exercise or only as a policy practice need to broaden their
approaches. Wakey [17] stated that in many Third World countries, urban planning education is relatively weak and inefficient often because of resource constraints. As planning requirements in Third World countries are changing, educational requirements are changing as well. He further argues that educational structures in these countries need to be reviewed and proposes several changes to alleviate existing shortcomings and he suggests that future urban planning education must take place within an understanding of the factors shaping 21st-century cities, especially the demographic, environmental, economic and socio-spatial challenges that lie ahead. It also needs to recognize the changing institutional structure of cities and the emerging spatial configurations of large, multi-nuclei or polycentric, city-regions.

As reported by UN Habitat [18], there were about 550 universities worldwide that offer urban planning degrees. About 60 percent (330 schools) of these are concentrated in only ten countries. The remaining 40 per cent (220 schools) are located in 72 different countries and although developing countries house than 80 per cent of the world’s population, they have less than half of the world’s planning schools. There are significant regional variations in terms of the relative importance given to technical skills, communicative skills and analytic skills in planning curricula. The variations are linked to the prevalence of policy/social science approaches, as opposed to physical design. Therefore, there is a significant need for updating and reform of curricula in many urban planning schools, particularly in many developing and transition countries where urban planning education has not kept up with current challenges and emerging issues. Planning schools should embrace innovative planning ideas. In particular, there should be increased focus on skills in participatory planning, communication and negotiation. Updated curricula should also enhance understanding in a number of areas, some emerging and others simply neglected in the past, including rapid urbanization and urban informality, cities and climate change, local economic development, natural and human made disasters, urban crime and violence and cultural diversity within cities. Capacity-building short courses for practicing planners and related professionals have an important role to play in order for cities to be able to support viable communities in liveable surroundings and progress to a more ethical development, planning education challenges should be tackled in a holistic manner in order to manage the urban ecosystem in a sustainable framework. The ideals and practices of urban planning at present beg the quest for the sustainable city.

4. PLANNING EDUCATION IN MALAYSIA – THE UNIVERSITI TEKNOLOGI MALAYSIA EXPERIENCE

Urban planning education, at the first degree level, in Malaysia started with the establishment of the first Bachelor of Urban and Regional Planning programme under the Architecture Faculty at the then Institut Teknologi Kebangsaan in 1972. [19] Since 1975 the faculty and institute have evolved to become the Faculty of Built Environment and the Universiti Teknologi Malaysia. Urban planning education in Malaysia has grown since then. Now there are more than five institutions, public and private, that are offering planning and planning related programmes in Malaysia.

The Bachelor of Urban and Regional Planning programme at UTM has undergone significant changes since its modest beginning. From having practitioners serving as part-time academic staff, the programme is now run by full-time academic staff with strategic input from practitioners. Nevertheless the programme has never deviated from giving special attention to producing physical planners. From almost exclusively for local students the programme is also open to international students particularly at the postgraduate level.
Structurally the programme has interchangeably been offered as an integrated programme (incorporating a diploma programme) and as a separate independent degree programme. This was necessitated by the need to meet the human capital requirements of the country. In meeting the requirements of the Ministry and professional bodies the programme has previously been offered as a four (4), four and a half (4 ½), and five (5) year programme (refer Fig. 1). Currently the Bachelor of Urban and Regional Planning is offered as a four-year independent programme.

After more than four decades of offering urban planning degree, the programme at UTM has gone through several changes and improvements. Through the years the content of the programme has evolved to spearhead changes and accommodate the requirement of various parties. As the frontiers of urban planning grew larger, the efforts to demarcate the programme boundaries were made more difficult partly due to the differing views and requirements of the stakeholders. Therefore this paper discusses the evolution of the planning education at UTM covering the changes in the inner core; the outer core and the periphery of the curriculum (refer Fig. 2).
4.1. The Inner Core - Anchored to Physical Planning and Design

The birth of planning education in Malaysia seems to coincide with the move, in the United Kingdom, to lean towards a more technical content. Therefore not unlike in any other parts of the world, planning education at UTM has been, and still is, anchored to physical planning and design. The leaning towards technical content is evident with the establishment of the studio as the focal point. Ever since the inception of the programme, the studios which form the inner core have been made the centre of all the activities of the curricula. Although their contents have evolved, the studios have never deviated from physical planning and design.

The formative years of the programme saw the influence of architecture, land survey and civil engineering within the inner core. Students learned draughtsmanship, technical and design skills in preparation for design tasks. To understand the landform, students trained to undertake basic land surveying and understand the underlying engineering requirements for the provision of infrastructure. The final outcomes were the preparation of two-dimensional residential, industrial, commercial and recreational layouts. Students were also made to understand basic building construction to enable them to communicate with architects. These set up students to be technically competent designers of layout subdivision. The advent of computer technology in the beginning of 1990s, has however transformed the mode of training. The introduction of computer-aided design means the tedious manual tasks were substituted with the use of computers. Drafting is no more done manually and the skills of colouring plans using planning colours are long gone. In terms of drafting students are expected to move from being manually competent to being technologically competent. Although the competency has shifted, the products remained the same. Aspiring planners are still required to design layouts. The arrival of more sophisticated design-related softwares later saw a shift in the form of output demanded. Two-dimensional plans are no longer adequate, it is now deemed necessary for planners be able to visualise their layouts and produce three-dimensional plans. Consequently students have abandoned their T-squares, drafting tables and technical pens for PC workstations and laptops. The challenge here is to define the boundaries between learning the technology and learning to design as both are time consuming endeavour.

The importance of the economy and the market has also contributed to the need to reinforce the studio content. In response to the external examination report in the 1990s, coupled with the increasing demand of planning in the private sector, planners were to think and act as developers to ensure the feasibility of a development. The result was the plan making process was reinforced to incorporate market and feasibility studies that for township development. This was to further equip students for the challenge in the employment market.

Prior to the coming of the Town and country Planning Act 1976, students were trained to prepare development plans although there were no clear guides as to how they should be prepared. This again stresses the emphasis on physical planning and plan making in the planning education. The advent of the Act in 1976 inevitably meant that students must be trained in the preparation of the development plans as specified by the Act. Several manuals, produced by the Federal Department of Town and Country Planning, are used as guides in the plan preparation. The programme has attempted to accommodate the different levels of the plans that are specified by the Act. Amendments to the Act in the mid 1990s saw a transformation of the development plan system from Urban Structure Plan to State Structure Plan, and District local plan which were then addressed in the curricula. While the older structure plans mirrored more of a land use zoning plan the new structure plans are more strategic in nature, requiring students to think strategically rather than operational. The constraints of the academic environment, however, limit the ability of the department to follow strictly the requirements for producing the development plans be its structure or local plan. The challenge for the students is to balance the requirements for data collection and analysis and the need to do the actual planning (refer Table 1).

The inner core has also kept abreast with the development in planning theory and land use planning. Students are exposed to the evolving planning theories, urban systems and the varying trends of factors that alter urban land use change and influence the plan making process.
4.2. The Outer Core - The Influence of Global and Local Change

Whilst the inner core of the planning curricula at UTM has been anchored to physical planning and design, the outer core of supporting disciplines, are more susceptible to changes taking place globally and locally. It is the dynamics of these related fields that metamorphose the planning education at UTM. Among the areas that have significant influence in shaping the curricula and the development of niche areas are environment, information technology, management, economics, planning laws, and planning practice.

Environmental studies have been one of the hallmarks of the planning programme at UTM, having its own environmental laboratory and offer an annual pilgrimage to the Taman Negara (Jerantut) for students to appreciate and experience living with nature. The importance of the environment has long been recognised in the curricula as a course since the programme started in the early 1970s. During this time the focus was on creating awareness of the importance of the environment in the process of planning. The key was how to integrate development with the environment. But the concern for the environment has grown in importance with the advent of sustainable development. This has placed Environment on the centre stage, and more recently in response to climate change the course has included the needs for the development of resilient cities, green neighbourhood, and low-carbon societies. These are complex concepts to be addressed within the curricula as they involve multiple disciplines. To instil deeper understanding and appreciation, environmental studies have been designed as a specialised course. Consequently students work be it layout design, development planning, housing, transport etc. have to inculcate sustainable principles (refer Table 2). Growing awareness on environmental matters are evident by the increasing number of undergraduate projects (PSM) dealing with such issues.

<table>
<thead>
<tr>
<th>Item</th>
<th>Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>from Awareness to Appreciation</td>
</tr>
<tr>
<td>Layout Design</td>
<td>from economic feasibility to sustainability</td>
</tr>
<tr>
<td>Development Plan</td>
<td>From sectoral consideration to centrestage</td>
</tr>
</tbody>
</table>

Table 2: The Evolution of the Environmental Focus of the Curricula
limited to programming and data processing needs. However, the availability and capability of current computer hardware and software have opened the doors for the Department to explore new horizons within the urban planning field. In the early 1990s UTM became the first planning school to introduce GIS in the curricula. The efforts of the late Professor Ahris Yaakup in disseminating the importance of the use of GIS have revolutionised planning related analysis to the extent that graduates of the school have been recognised as “specialist” in GIS (refer Table 3). The efforts resulted in the improvement of planners’ capacity to make better informed decisions and enhance planning analysis.

<table>
<thead>
<tr>
<th>Item</th>
<th>Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>from Programming to Analysis and Visualisation</td>
</tr>
<tr>
<td>Layout Design</td>
<td>from manual to CAD</td>
</tr>
<tr>
<td>Development Plan</td>
<td>From report and analysis to visualisation and scenario analysis</td>
</tr>
</tbody>
</table>

Table 3: The Evolution of the Influence of Computer Technology on the Curricula

Other elements within the outer core have also contributed to the evolution of the curricula of planning education at UTM. Management for example has been an important part of the curriculum since 1970s. The study of management has evolved from the focus on public administration to management, project management and latterly to governance. Students need to be equipped with urban management skills since there is an increasing need for planners to be urban managers. Social aspects have also evolved through the years. The focus on concepts and theories of social planning, social issues in planning and housing has evolved to concepts of sustainability in community development such as social impact assessment, community participation and empowerment in planning. Economic considerations have always been an integral part of the curricula with urban, rural and regional economics embedded in it. The studies of economics have also evolved from introducing economic principles to economic feasibility and sustainability. Planning law is another element within the outer core which has also evolved. Students not only need to understand the processes and procedures but also the underlying issues, problems and challenges in implementing urban planning law. With communities becoming more affluent and the mass media increasingly transparent the challenges to planning decisions have become more apparent thus require students to be more critical (refer Table 4). Planning practice is another important element in the curricula. As an accredited professional programme the course on planning practice has to keep abreast of the dynamics of the profession. Some elements of practice are also incorporated within other courses such as the studios where live and simulated projects, with input from planning practitioners, is the norm. Students are also exposed to the tasks and responsibilities of practising planners through industrial training.

<table>
<thead>
<tr>
<th>Item</th>
<th>Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>from Administration to Governance</td>
</tr>
<tr>
<td>Social Planning</td>
<td>from concept and theories to sustainable communities</td>
</tr>
<tr>
<td>Economics</td>
<td>From economic principles to economic feasibility and sustainability</td>
</tr>
<tr>
<td>Planning and Related Laws</td>
<td>From process and procedures to issues, problems, and controversies</td>
</tr>
</tbody>
</table>

Table 4: The Evolution of Other Outer Core Elements on the Curricula

The challenge in determining the boundaries of the outer core is the extent to which each of the areas concerned can be addressed within the restricted period available without them being overwhelming for the students.
4.3. The Periphery – The Auxiliary skills

The periphery is as important as the inner and outer core in demarcating the boundaries of planning education. The periphery deals with the auxiliary or supplementary skills required by a planner. In addition to fundamental planning skills, the Ministry of Higher Education (MOHE) and the University have identified seven (7) major skill areas that students generally need to master. Apart from entrepreneurial, managerial and leadership skills, students also need to develop critical thinking, communication and interpersonal skills in addition to the desire for lifelong learning. These skills are technical skills, critical thinking, communication skills, social skills, lifelong learning, management and entrepreneurial skills, and leadership skills. Fortunately, these skills coincided with the general competency skills needed by a planner (refer Table 5). These skills are incorporated in all the courses offered. The challenge here is the time to be accorded to the development of the skills within the restricted period available to the students.

<table>
<thead>
<tr>
<th>MOHE Soft Skills</th>
<th>Planning Competency Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>technical skills</td>
<td>Problem Identification and Research Skills</td>
</tr>
<tr>
<td>critical thinking</td>
<td>Analytical Skills</td>
</tr>
<tr>
<td>communication skills</td>
<td>Written, Oral and Graphic Communication Skills</td>
</tr>
<tr>
<td>social skills</td>
<td>Collaborative Problem Solving Skills</td>
</tr>
<tr>
<td>lifelong learning</td>
<td>Synthesis and Application of Knowledge to Practice</td>
</tr>
<tr>
<td>managerial and entrepreneurial skills, leadership skills</td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Soft Skills and Planning Competency Skills

MOHE also specified that Humanities or University courses are compulsory for all programmes. These courses are important to build students integrity, character etc. The proportions of the humanities and university courses have also evolved from 12% of total graduating credits in the 1980s to 15% in the current curricula.

5.0 The Way Forward – the challenge for the future

In the last four decades, planning education has seen a move from physical designs towards an increased focus on policy and social sciences. Although planning education at UTM is still inclined towards design, the scenario in the 21st century brought about by high rates of population growth and rapid urbanization, gradually necessitate the curricula to incorporate the influence of policy and social elements. Yet the areas of sustainable development, social equity, participative and deliberative planning, and climate change still remain a challenge to many planning schools in developing countries like Malaysia. In addition planning educators is these schools have to keep pace with the development of new techniques and tools for planning analysis, maintaining effective response to growing environmental challenges, expanding conflict resolution skills in an effort to equip the profession for the rapid growth of the region.

Another challenge for planning profession in Malaysia is market liberalisation. In the wake of this, urban planning education in Malaysia will need a major transformation. This requires planning schools to consider a global curriculum, an approach receiving much attention in the global and regional arena. Taught in global issues and multiculturalism, our local aspiring planners would be ready to compete and spar with their global counterparts.

Planning education at UTM aspires to encompass the vast frontier of planning. Since this is complex it has to demarcate its boundaries to be manageable. Formal planning education is not an end in itself. It should not only be about training a planner but more about educating a planner. Given the nature of urban planning and its vast frontier it is safe to say urban planning schools, on their own, will never be able to produce a complete planner. To the planner the world is a stage, continuous planning lessons are always there in practice after the formal planning education.
Acknowledgement

This paper is part of a research funded by CIPD through its short-term grant scheme.

*Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime.*
*Educate a man about sustainable fishing and you feed his whole generation*

REFERENCES

20. Faculty of Built Environment (1976). Curriculum and Syllabus Document 1976/77, Department of Urban and Regional Planning, Faculty of Built Environment, UTM, Kuala Lumpur.
21. Faculty of Built Environment (1986-2011). Alam Bina Academic Booklet, Faculty of Built Environment, UTM, Johor Bahru