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## 地綠天藍：

# 邁向二十一世紀全球大學的地景專業通才教育\*

張聖琳\*\*

## Land Blue and Green: Toward a “Landscape Generalist” Education at a Global University in the 21st Century

by

Shenglin Elijah Chang\*\*\*

### 摘要

本文期待,在二十一世紀的破曉,開啟地景專業通才教育的對話。本文是回應畢生推創“專業通才”教育的建築與城鄉研究所王鴻楷教授,在環境規劃與設計教育領域的執著及努力。

本文對於地景專業通才教育的想像,浮現自放眼望去,天地一線相連的綠地藍天。藍天象徵著我們頭頂上的全球化的天空;綠地則代表著我們腳下踩踏著的被全球暖化所衝擊超過一個世代以上的大地。身為一個地景教育者,我建議我們的設計學程與教學法研究應該與全球化的藍天及生態綠地緊密結合。

立基於綠地藍天的雙元想像,本文著墨於高等教育中,注重國際化的全球大學新趨勢,如何為建築與城鄉研究所的地景專業通才教育開啟了新的實驗:全球在地化永續地景學程。本文建議研擬並實驗“全球在地化永續地景學程”,可以成為未來在建築與城鄉所中對地景有興趣的同學之選修課程之藍圖。更重要的是,希望藉著這個實驗性學程,同學們可以描摹自己的綠地藍天。

**關鍵字：**景觀建築、專業通才、全球大學、跨境設計學程、教學法研究

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## ABSTRACT

My article initiates a dialogue for nurturing “landscape generalists” at a global university in the 21st century. I hope this article sets off the dialogue for the landscape generalist imagination in the Graduate Institute of Building and Planning, in response to Professor Wang’s life long commitment to developing the education of professional generalists in the field of environmental planning and design.

The imagination of the landscape generalist education merges from our vision of beholding land and sky: the blue sky and green land merges from the horizon in the dawn of the 21st century. Blue sky symbolizes the transnational sky above us in the era of globalization; green land represents the ecological earth underneath our feet that has been threatened by the global warming phenomenon for more than a decade. As a landscape educator, I suggest that we evolve our design curriculum and pedagogical research according to the transnational blue sky and ecological green land.

Based on the dual blue-green imagination, my article elaborates on how the international trend in higher education of moving into global universities, opens up new opportunities for the Building and Planning Graduate Institute to develop the Glocal Sustainable Landscape curriculum for educating landscape generalists. I propose the Glocal Sustainable Landscape curriculum as an alternative experiment for the Institute. My hope is that students will encounter a bigger world and redefine their blue sky and green land in their own terms.

**Keywords: landscape architecture, professional generalist, global university, transnational design curriculum, pedagogical research.**

Retirement is the moment that allows others to celebrate what one has done to this point of one’s life. It is also the moment when others question themselves as to what to do to sustain and transform the retirees legacy. For all of us who join Professor Wang’s honorable retirement conference hosted by the Graduate Institute of Building and Planning (henceforth the Building and Planning), nothing is more appropriate than succeeding his effort to establish the idea and practice of “professional generalist” in Taiwanese environmental design and planning education.

Writing and presenting an essay for this conference is much more challenging than I expected, because this

is a unique occasion that only comes once in a professor’s life. More importantly, only a few educators receive this honor when they retire. Thus, this conference is not only about a venue for debating pure theoretical concepts, but also a forum for sharing stories of how Professor Wang’s belief and dream of “professional generalist” have evolved and intertwined with ours. After toasting out several drafts, I decided to write my essay with a personal voice. This is my way of honoring Professor Wang’s lifelong commitment of developing the new educational vocabulary of professional generalist in the field of environmental design and planning in Taiwan. For decades, Professor Wang has put his belief and passion into this frontier. The only way for me to honor him and his idea is to

reveal how my journey of being his student, an environmental educator and a design planning professional has been inspired, influenced and evolved by his idea. It is my bias in being a teacher whose favorite reward is learning how her teaching and ideas changed her students' life and challenged their way of thinking.

In my paper, I discuss the landscape generalist education within the context of the transformation of global universities. Many universities around the world have renovated themselves into global universities, with the effort beyond traditional study abroad programs, individual student exchanges or faculty visiting. As Richard C. Levin, the president of Yale proposed, a global university should have four major components: the creation of a new curriculum, research in an international context, the establishment of partnerships with foreign universities, and interactions with new constituents<sup>1</sup>. The National Taiwan University's (henceforth, NTU) "Aim for Top University Project" is also trying to convert itself into a global university. For this reason, I propose that landscape generalist education in Building and Planning should move directly into a global scale. Taiwan is our home and we do love Taiwan. However, for our students who will be the future practitioners and educators, they might live in a flat world due to the information technological revolution and globalization<sup>2</sup>. They need the kind of landscape generalist training and knowledge that not only helps them understand Taiwan, but also embraces the world. They need to be able to compete with professionals in an international stage, because their career

opportunities should not be limited within the physical boundary of Taiwan.

## **1. Are There Spaces Available for Landscape Generalist Education?**

I want to start this section by clarifying the reason that I use "landscape" instead of "landscape architecture" in this article. Landscape comprises the entire horizon in our beholding eyes including everything we see, even the blue sky above us, no matter manmade or natural. Landscape also holds the things we do not see, i.e., air, vapor, temperature, or energy. The broad concept of "landscape" liberates us to establish the general knowledge base for being a landscape architect in the post globalization and climate-changed world. In other words, it is my bias that "landscape" is the "generalist" version of "landscape architecture."

In the past two decades of being a student and a professor in accredited landscape Architecture programs in the United States, my experience taught me to believe that landscape architecture is a well defined profession that associates with curricula accredited by professional landscape architectural societies. Landscape architecture curricula often emphasize more the practical side of how to manipulate surrounding physical environments. I value the well organized professional curricula that assist young design students in receiving systematic trainings. After professional trainings, these young designers are expected to be landscape architects who offer professional services to their clients, whose needs are

varied from private garden design to urban public space design, from neighborhood park design to national park planning and management, and from residential community site planning to regional and watershed conservation planning.

The training of becoming a landscape architect is a problem solving based approach. Most students gain skills and confidence after taking these systematic problem-solving based trainings. Although any given problem might cover a broad scope of issues including ecology, culture, politics and economy, students are trained to solve the given problems via physical design. In many cases from my experiences, due to the well defined professional boundaries in the United States, designers have limited space to challenge the fundamental issues that cause the problems. At the same time, designers often overemphasize manipulating the physical aspect of the problems and overlook the socio-economical weakness or ecological limitations in a given situation. I will reflect on this constraint in the end of this paper.

While the ranges of service and the scope of issues that landscape architects cover are so broad, it is not a surprise that the base of knowledge landscape architecture students need to learn is diverse. Professional students eventually learn many of these knowledge bases through general education (the so-called core courses at universities in the United States). Within the context of higher education in the United States, the higher education systems provide more opportunities for professional students to receive general knowledge bases. For example, in the case of

landscape architecture students, they are required to take biology, ecology, chemistry, cultural diversity, and sociology through their core course requirement. Undergraduate students have the freedom of deciding their majors after they enter their university, not before. Most freshmen take two to four semesters to explore their career options. Against this backdrop, when undergraduate students finally settle down in professional programs, they have gone through required general education curricula. In addition, students also have opportunities to explore different professions (e.g. fashion design, interior design, landscape design, law, health & medical training, restaurant management etc.) during their high school years before they enter universities<sup>3</sup>. More importantly, many professional programs (e.g. landscape architecture, architecture, interior design, urban planning, law, business etc.) provide three-year professional graduate degrees that only recruit students without professional backgrounds, i.e., liberal arts, humanity, or science<sup>4</sup>.

Compared to education systems in the United States, Taiwanese students have much less opportunity to shop around for professional career choices and cultivate general knowledge bases before they enter college. As young adults just graduated from high school, students are funneled into different disciplines through college entrance examines and registration systems. Although general knowledge core courses are required for all college students, they do not need to maintain a high GPA based on core courses to get into their favorite professional programs. Instead, they might put more effort towards their professional

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courses for higher grades to balance the lower grades received for core courses. Meanwhile, I am not aware that any master level professional curriculum in Taiwan is particularly designed for recruiting non-professional background students (i.e., students with science, humanity or liberal arts backgrounds). This leads to various challenges for non-professional students who obtain a better general knowledge base but decide to get a design/planning professional master's degree in Taiwan. I was one of these students when I was in the Building and Planning. I will reflect on the anxiety that non-professional background students shared in the end of my paper.

After taking a glimpse of professional training in higher educational systems in Taiwan and the United States, I advocate the urgent need for establishing a broader landscape curriculum in Taiwanese undergraduate as well as graduate institutes. I mentioned early in this section that traditionally the issues that landscape architects encounter are varied according to project base. In today's world, landscape architects are confronting even more complicated socio-ecological systems than before, due to rapid climate change as well as people's intensive global traveling and migrations. Living in this era changing so speedily and dramatically, we hardly can rely on a single or even group experts, to forecast our future life on earth or to provide simple solutions. Under these circumstances, how do we know what kind of new knowledge and skills landscape architects might need for solving future problems that we are not now aware of.

What if temperature continually increases and sea levels constantly move up around the world, would landscape architects shift our focus from designing land based parks and gardens to collaboration with environmental, civil or oceanic engineers and hydrologists to design aquaria based landscapes? If this is the case, our design challenges would become how to manage water and relocate human habitats in response to the ecological change. At the same time, people are immigrating in a monumental scale. In terms of transnational migration, are you aware that Thai population relocates in Copenhagen? Do you know that Asian Indians take over Rue Saint Dennis in the center of Paris? Pilipino math teachers are systematically imported to Prince George's County in Maryland of the United States to teach school children mathematics there. I argue that our public participation tools in a community planning and design process are not sophisticated enough for resolving issues being brought up by today's transnational migration phenomena. Working on public plazas or places in a global city or a local neighborhood, landscape architects need to provide culturally sensitive services to users who might relocate to the project sites after the project is completed. In other words, landscape architects need to establish general multi-cultural understanding in today's rapidly changing society.

Therefore, a landscape generalist curriculum, a liberal art training that opens up landscape architecture students' knowledge base, is extremely critical for young landscape architects. Similar to the concept of extending our human genetic pool for finding ways to cure detrimental diseases, I argue that a landscape

generalist curriculum would facilitate us to establish broad general knowledge bases in response to the fast shifting socio-ecological systems we live in today. Particularly in the Taiwanese higher education system students have less opportunity to seek general knowledge bases. We need a flexible framework that allows students to explore different aspects of multi-cultural landscape transformations and understand the impacts of global climate change.

## **2. The Glocal Sustainable Landscape curriculum as the Landscape Generalist Curriculum in the Building and Planning**

When I studied in the Urban Planning Studio (the pre-stage of the Building and Planning) in late 1980s, I was seeking landscape generalist curriculum and professional training, but what the Studio offered at that time was unable to fulfill my need. For that reason, I continued my landscape architecture training in the United States in the early 1990s. Twenty years later, I was informed that I would become the first core faculty member with landscape background in the Building and Planning. For this reason, I advocate the urgent need for a landscape generalist imagination that enlightens students in Building and Planning. The imagination of the landscape generalist education merges from our vision of beholding land and sky: the blue sky and green land merges from the horizon in the dawn of the 21st century. Blue sky symbolizes the transnational sky above us in the era of globalization; green land represents the ecological earth underneath our feet that has been threatened by the global warming

phenomenon for more than a decade. As a landscape educator, I suggest that we evolve our design curriculum and pedagogical research according to transnational blue sky and ecological green land.

To be more specific the South and East Asian immigrant population has rapidly increased in the past twenty years in Taiwan. According to the recent Taiwanese Census, one of every ten new-born babies is from a hybrid marriage, families with one spouse from the South or East Asian cultural heritage. In order to provide these new immigrants with design and planning services sensitive to their unique cultural needs and preferences, the BP Institute recognizes a unique opportunity to train its young planners and designers with an understanding of South and East Asian culture and design vocabularies.

Meanwhile, from a global perspective of student's future career opportunities, the economic transformations of Asia during the past decade have impacted the western landscape profession profoundly. In various Pacific coast cities, many leading western landscape firms (especially American-based design offices) are engaging in important development projects in China (i.e., in metropolitan areas like Shanghai and Beijing). Westernized landscape designs and Americanized suburban projects have been mushrooming from the coastal cities to inland China. This situation dramatically impacts landscape industry. Many job openings in these western companies are being created for landscape designers and planners who have a strong East Asian background and are also willing to work in the East Asian offices. More importantly, many of these transnational developments in Asia have profoundly impacted local

socio-ecological dynamics in many metropolitans and rural villages, especially the ones in China. It is our responsibility to provide young landscape students approaches different than the mainstream transnational design companies.

More importantly, in terms of the global ecological changes due to human activities that change the atmosphere's composition e.g., burning fossil fuels, and the land surface ( deforestation, reforestation, urbanization, desertification, etc.), the climate changes (especially global warming), people's way of life has been impacted in different urban and rural locations. In certain cases, these types of natural disasters not only demolish properties and goods, but also take away people's lives. It is a worldwide effort that cities and countries work collaboratively on landscape issues (e.g. preserve rain forest, rural and agricultural land) to slow down the increase of the average temperature in the earth's surface. In the field of environmental design, professionals initiate international cooperation to develop green technologies and environmental policies that sustain eco-systems in local and regional scales.

In response to the dual blue-green global transformations, and regional and local changes in Asia and Taiwan, the Building and Planning should initiate a flexibly structured Glocal Sustainable Landscape curriculum (henceforth GSL curriculum, and 全球在地化永續地景學程 in Chinese) that allows students who seek landscape generalist education to take courses at institutes in Taiwan and abroad. I propose the Glocal Sustainable Landscape Curriculum as a schematic plan. This schematic plan functions as a departure for further discussions, experiments, as well as practical developments and radical changes. In my

opinion, the executive GSL curriculum is an on going process that would be emerged from various try and error experimental steps merged from the consensus of the BP faculty group.

The GSL curriculum coordinate with the core studio courses that required by all Building and Planning students, as much as the situation allows<sup>5</sup>. The curriculum emphasizes two foci: (1) glocal cultural landscape transformation and (2) climate change and glocal ecology. This curriculum takes a liberal art approach that allows students to receive cultural and ecological landscape knowledge by taking certain required or/and elective credits (i.e., 12 credits – 2 courses plus one advanced studio, or other combinations). The goal of the curriculum is to help students establish their own perspectives of landscape transformations from a multiple centered point of view, not limited by the local Taiwan centric aspect or northern American and western European views. Multiple linguistic abilities (for example, Chinese, English, Spanish, Japanese, native Taiwanese languages etc.) are mandatory for students taking the GSL curriculum. Therefore, it requires students to take one foreign language course including English. Teaching students traditional landscape technical skills (i.e., digital drawings, grading, or constructions) will not be the focus of the curriculum. Students without drawing training are encouraged to perceive the needed skills by taking courses from professional programs or alternative training institutes. Instead, students are encouraged to travel to foreign countries, especially those outside East Asia, North American and Western Europe. In other words, GSL is a graduate level liberal art oriented curriculum that try to bridge the lack of



communications among different disciplines within Taiwanese higher education systems. For non-landscape architectural training students whose career plan is to become a landscape architect need to take other graphic, design and construction fundamentals along with the GSL. For those who have already earned professional design degrees, the GSL extends their view of profession practice outside the box of the conventional professional training.

In other words, under the structure of the Glocal Sustainable Landscape curriculum, students can not only take the core design studios offered by BP curricula, they can also initiate their individual study plans. The curriculum allows students to take dual degrees or exchange programs with landscape architecture programs at top universities abroad. This arrangement would echo the effort that the National Taiwan University's "Aim for Top University Project" has already set up as a system for students who want to pursue this path. According the "Aim for Top University Project," post-graduate students may pursue a dual degree in a single discipline: master's candidates complete one year of study and research at NTU and one year abroad; doctoral candidates follow the same pattern but with two years in each location<sup>6</sup>. However, students who decide to pursue landscape architecture as their career but without design training prior to their study in the Building and Planning, would need two-year professional training in an accredited landscape architecture program. Meanwhile, the Glocal Sustainable Landscape curriculum encourages students to study abroad during their summer or winter breaks. Students could take well developed summer studios offered by landscape architecture programs abroad.

The Building and Planning should consider the option that students who take heavy loaded summer studios can shorten the length of their study in the Building and Planning.

One of many examples of what the "glocal sustainable landscape" course could be is the Costa Rica Sustainable Future Studio operated by top multidisciplinary institutes in the United States for more than a decade. This is a semester's worth of credits (12-13 credits) in a small rural community next to the Monteverde Cloud Forest Preserve in Costa Rica<sup>7</sup>. Students work with local community residents on various projects jointly defined. Participating programs hosted by the Monteverde Institute (local bonded) include University of Maryland Landscape Architecture Program, University of New York at Buffalo School of Architecture and Planning, University of Illinois Department of Urban and Regional Planning and University of New York ESF at Syracuse (US based global universities with students from the world). This ten week summer course of study is designed to offer students the opportunity to live and work on ecological and social projects in a rural, but rapidly developing region in Costa Rica. This multi-disciplinary program is designed for students including architecture, planning, landscape architecture, resource management, and international development. Students participate in a seminar on sustainable development, enroll in Spanish language classes, and take an intensive studio/internship with one of the many organizations in the Monteverde zone working toward sustainability. There is a final report, plans or design scheme, or actual environment intervention, depending on the nature of the work. In addition, there

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is a series of lectures and field trips to local cooperatives, ecologically managed farms, and various forest reserves.

In summary, the schematic proposal for the Glocal Sustainable Landscape Curriculum consists of the following aspects. As I mentioned in the beginning, this proposal is the beginning of our conversation for establishing the landscape generalist education. It is open for discussions and modifications.

- (1) 12 credits of elective courses. Courses can be elected from two foci: (a) glocal cultural landscape transformation and/or (b) climate change and glocal ecology.
- (2) Foreign language is mandatory. English is included, but languages other than English would be preferred.
- (3) Students are encouraged to participate in exchange programs and travel to foreign countries.
- (4) Students should be encouraged to apply for dual degree programs that allow them to study in accredited landscape architecture programs in other graduate institutes in Taiwan or other countries.
- (5) The Building and Planning should allow students to shorten their length of study at NTU by taking heavier loaded study abroad programs offered by well-respected global universities.

As mentioned earlier, the goals of the Glocal Sustainable Landscape curriculum are to provide students a semi-structured learning framework that facilitates students to approach landscape related knowledge and assist them in analyzing landscapes

from multi-centered perspectives (other than a Taiwanese, American, or western European centric view). This curriculum is not designed for substituting the mandatory professional skills that landscape architects need, i.e., site engineering, material and construction, AutoCAD, planting design, etc. In order to eliminate the anxiety shared among non-design background students who consider being landscape architects, I would suggest they take technical based training during or during or after their study in the Building and Planning.

### **3. The Glocal Landscape Education as a Commitment for Lifelong Learning**

Learning is a lifelong commitment. (Dunlap 1997) Learning neither starts nor ends in the Building and Planning. The landscape generalist training provided by the Building and Planning is one, among many other, views and approaches in the field of environmental design and planning. It is neither the best, nor the worst. It is an approach different than what one can receive from other professional schools. Students should explore as many other ideas and trainings as they want to in their life journeys. More importantly, the Glocal Sustainable Landscape curriculum serves as the beginning of their journey, not the conclusion. The goal of the training is not about providing answers for students, but encouraging students to question everything they perceive in their surrounding landscapes. Students are empowered in the process of searching for their own answers. Students shall be open to different answers and allow their own answers to evolve in their searching processes which

might be a very confusing struggle. Confusion and anxiety are part of a healthy learning journey.

My journey of being an alumnus of Building and Planning finally reached the point where I digest my anxiety and feel comfortable about it. During two decade long periods of being a student and a professor in professional programs, I finally understand and appreciate the experimental approach of professional generalist education that the Building and Planning contribute to the design and planning profession. Within its constrained resources, the Building and Planning has performed its special role and created its unique identity in planning and design education. It is one of few institutes that allow young professionals to experiment with alternative approaches to solving problems in built environment. The solutions can go beyond physical designs that are traditionally instructed by professional schools. Under this backdrop, I believe the landscape generalist education with its global approach best fits Building and Planning for the following long term reasons.

Strategically speaking, there is limited room at NTU for the Building and Planning to establish a professional landscape architecture curriculum, since there has already been a landscape architecture graduate program in the Department of Horticulture. From the University's point of view, it would be a waste of resources to establish two landscape architecture professional programs in one university. It is a given criterion that the landscape curriculum that the Building and Planning offers has to be different than the landscape architecture curriculum provided by the Landscape Architecture Graduate Program in

Horticulture.

The existing Landscape Architecture Graduate Program in the Horticultural Department will also impact the long term plan of establishing the Building and Planning Professional School under the College of Engineering. According to Hsia's paper, the Professional School consists of three graduate programs (or institutes). They are: architecture, urban planning, and landscape architecture. From the view of Building and Planning, it is obvious that the landscape architecture program is included in the future Professional School structure. However, this might not be the case from the view of faculty and students in the existing Landscape Architecture Graduate Program and the Horticultural Department under the College of Agriculture. Two scenarios need to be considered: (1) the existing Graduate Landscape Architecture Program moves into the Professional School, and (2) the existing Landscape Architecture Program stays within the Horticultural Department under the College of Agriculture. The latter might be more realistic than the former in the near future. Even if the former one is going to take place, there would be a long period of negotiation and restructuring. Therefore, when either occurs, Building and Planning shall strategically layout a landscape curriculum that is not in competition with; but incorporating into, the Landscape Architecture Program in Horticulture. In my opinion, a global landscape curriculum, Taiwanese landscape generalist studies with global perspectives, would be the direction to pursue.

Challenge is opportunity, especially at the moment of transforming NTU into a global university. I believe that Building and Planning is one of the few places

around the world that allows faculty and students to develop a glocal landscape curriculum. To be honest, according to my experience in Taiwan and abroad, it is not difficult to find an excellent professional landscape architecture program and get solid professional training. The challenge is to find an extraordinary interdisciplinary program that provides training that integrates landscape, architecture, and urban planning, with socio-economic and political analysis, and much more beyond. The international trend in higher education of moving into global universities opens up new opportunities for the Building and Planning Graduate Institute to develop the Glocal Sustainable Landscape curriculum for educating the landscape generalist. By taking this curriculum, my hope is that students could encounter a bigger world and redefine their blue sky and green land in their own terms.

## Note

- 1 Levin's 4 points: "The Global University," by Richard Levin at the Yale Club of Korea, Seoul, Korea, 5-15-03, published by the Yale University Office of Public Affairs.
- 2 The World Is Flat: A Brief History of the Twenty-First Century: by Thomas L. Friedman. And, The World Is Flat?: A Critical Analysis of New York Times Bestseller by Thomas Friedman. By Ronald Aronica and Mtetwa Ramdoo.
- 3 High schools in the United States offer vocational curricula for students to explore. In the case of Montgomery County in Maryland (one of the best school districts in the United States), high schools offer various trainings including but not limited to:
  - landscape and turf management, small animal technology, nursery and orchard technology, greenhouse technology, floral design, automotive technology, carpentry, site layout, DC electronics, etc. (Montgomery County High School Secondary School Program and Course Guide 2007-2008)
  - The Sabin-Shekkenberg Center in the North Clackamas School District 12 in Portland, Oregon, provides another unique model and all high schools within the North Clackamas district send their students to the Sabin-Shekkenberg Center for vocational training. The Center offers twenty well organized training areas. To name a few, automotive service technology, building trades, CAD, cosmetology, fashion design, health service, information technology, interior design, law enforcement, marketing and management, natural resource management and so on. (Sabin-Schellenberg Center 2006-2007)
- 4 There are thirty-six accredited Master of Landscape Architecture programs offering three-year training for non-design background students. (ASLA website)
- 5 Currently, all Building and Planning students are required to take three core studio courses upon their entry. The first two entry level studios are fixed topics arranged by three faculty members, even though students have some freedom to focus on issues they prefer. The third studio, an advanced one, usually offered by different instructors that depends on what the professional projects the instructor is currently taking on. By this time, students have more freedom to select the particular studio to work on. However, neither the first two studios nor the third studio are guarantee students who like to pursue landscape architecture skills and knowledge to get what they need.
- 6 [http://top100.ntu.edu.tw/en/accomplish\\_06\\_02.htm](http://top100.ntu.edu.tw/en/accomplish_06_02.htm)
- 7 <http://www.mvinstitute.org/pages/education-courses>

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