



SAKARYA  
UNIVERSITY

# 2014 INTE

INTERNATIONAL  
CONFERENCE ON NEW HORIZONS  
IN EDUCATION

[www.int-e.net](http://www.int-e.net)

**June 25 - 27  
2014**

**Paris, FRANCE**



*Proceedings Book  
Volume 4/5*

**ISSN: 2146-7358**

Venue: Hotel Novotel Paris Est, PARIS, FRANCE



## Foreword

Dear Guests,

Welcome to the 5<sup>th</sup> International Conference of New Horizons in Education-2014 in Paris, France. "The International Conference of New Horizons in Education (INTE)" is an international educational activity for academics, teachers and educators. It promotes development and dissemination of theoretical knowledge, conceptual research, and professional knowledge through conference activities, workshops, discussions and conference proceeding book. The International Conference of New Horizons in Education-2014 aims to diffuse knowledge and research findings among academicians and lead to professional development and scholarly practices in educational sciences.

For this conference, we have gathered in Paris to share and construct knowledge, to promote dialogue across academic differences, to further and deepen connections within our scholarly community, and to be in fellowship with friends and colleagues old and new. This year, INTE-2014 has received about 1300 applications. The Conference Organizing Committee has accepted approximately 900 abstracts and the conference features over 750 presentations, including 620 oral, 86 poster, and 42 video presentations in 8 conference halls and with more than 165 sessions, representing the breadth and depth of education research today.

This year we have participants from more 60 different countries representing five continents, with different races, gender, ethnic backgrounds and cultures.

We would like to wish you a pleasant stay in Paris and a successful conference. We hope that we will meet again at the International Conference of New Horizons in Education, 2015 in Barcelona, Spain next year.

Thank you for your contribution for the success of International Conference on New Horizons in Education 2014.

Assoc. Prof. Dr. Ahmet ESKİCUMALI

*Coordinator*

Prof. Dr. Aytekin İŞMAN

*General Coordinator*

## **INTE 2014 Organizing Committee**

### **General Coordinator**

Prof. Dr. Aytekin İŞMAN, Sakarya University, Turkey

### **Coordinators**

Prof. Dr. Colleen SEXTON, Governor State University, USA

Prof. Dr. Teresa FRANKLIN, Ohio University, USA

Prof. Dr. Carlos De Sousa REIS, Instituto Politecnico da Guard, Portugal

Assoc. Prof. Dr. Ahmet ESKİCUMALI, Sakarya University, Turkey

### **Assistant Coordinator**

Assist. Prof. Dr. İrfan ŞİMŞEK, Istanbul University, Turkey

### **Conference Secretary**

Dr. Kerim KARABACAK, Sakarya University, Turkey

Dr. Burak ŞİŞMAN, Istanbul University, Turkey

## INTE 2014 Editorial Board

- Aaron DAVENPORT, Grand View College,  
United States
- Ahmet ESKİCUMALI, Sakarya University,  
Turkey
- Andreja Istenic STARCIC, University of  
Primonska, Slovenija
- Antoinette MUNTJEWERFF, University of  
Amsterdam, Netherlands
- Antonis LIONARAKIS, Hellenic Open  
University, Greece
- Arif ALTUN, Hacettepe University, Turkey
- Arvind SINGHAL, University of Texas,  
United States
- Asuman Seda SARACALOĞLU, Adnan  
Menderes University, Turkey
- Aytekin ISMAN, Sakarya University, Turkey
- Brent G. WILSON, University of Colorado at  
Denver, United States
- Buket AKKOYUNLU, Hacettepe University,  
Turkey
- Carlos De Sousa REIS, Instituto Politecnico da  
Guard, Portugal
- Cem BİROL, Near East University, North  
Cyprus
- Charlotte GUNAWARDENA, University of  
New Mexico, United States
- Colleen SEXTON, Governor State University,  
United States
- Dale HAVILL, Dhofar University, Oman
- Danguole RUTKAUSKIENE, Kauno Tech.  
University, Lithuania
- Douglas Franklin, Ohio University, United  
States
- Don FLOURNOY, Ohio University, United  
States
- Elnaz ZAHED, University of Waterloo, UAE
- Eric Zhi-Feng LIU, National Cenral  
University, Taiwan
- Francine Shuchat SHAW, New York  
University, United States
- Gianni Viardo VERCELLI, University of  
Genova, Italy
- Gilbert Mbotho MASITSA, Universirty of The  
Free State - South Africa
- Giovanni ADORNI, University of Genova,  
Italy
- Gregory ALEXANDER, Universirty of The  
Free State - South Africa
- Gulriz IMER, Mersin University, Turkey
- Heli RUOKAMO, University of Lapland,  
Finland
- Hj. Mohd Arif Hj. ISMAIL, National  
University of Malaysia, Malaysia
- Hüseyin YARATAN, Eastern Mediterranean  
University, North Cyprus
- Iman OSTA, Lebanese American Universiy,  
Lebanon
- Ina Joubert, University of Pretoria, South  
Africa
- Jagannath DANGE, Kuvempu University,  
India
- James C. HOLSTE, Texas A&M University at  
Qatar, Qatar
- Jerry WILLIS, Manhattanville College, United  
States
- Kakha SHENGELIA, Caucasus University,  
Georgia
- Karel RYDL, Pardubice University, Czech  
Republic
- Manoj Kumar SAXENA, Advanced Institute  
of Management, India
- Mariam MANJGALADZE, Institute of  
Linguistics, Georgia
- Marina STOCK MCISAAC, Arizona State  
University, United States

- Martin STEIN, Westfälische Wilhelms University, Germany
- Miguel j. ESCALA, Ins. Tech. de Santa Domingo, Dominican Republic
- Min JOU, National Taiwan Normal Uni., Taiwan
- Mohammad YAMIN, King Abdulaziz University, Saudi Arabia
- Monte CASSIM, Ritsumeikan Asi Pacific University, Japan
- Nabi Bux JUMANI, Allama Iqbal Open University, Pakistan
- Osman TİTREK, Sakarya University, Turkey
- Ozcan DEMIREL, Hacettepe University, Turkey
- Pamela EWELL, Central College of IOWA, United States
- Paul KGOBE, Centre of Edu. Pol. Dev., South Africa
- Paul Serban AGACHI, Babes-Bolyai University, Romania
- Paula FITZGIBBON, University of Victoria, Canada
- Pedro TADEU, Instituto Politecnico da Guarda, Portugal
- Psaltis IACOVOS, European University Cyprus, Cyprus
- Raja Rizwan HUSSAIN, King Saud University, Saudi Arabia
- Rozhan IDRUS, Sains Malaysia University, Malaysia
- Saedah SIRAJ, University of Malaya, Malaysia
- Seçil KAYA, Anadolu University, Turkey
- Serap OZBAS, Near East University, North Cyprus
- Stefan AUFENANGER, University of Mainz, Germany
- Tam Shu SIM, University of Malaya, Malaysia
- Teressa FRANKLIN, Ohio University, United States
- Tülen SANER, Near East University, North Cyprus
- Veysel SÖNMEZ, Cyprus International University
- Vincent Ru-Chu SHIH, National Pingtung Univ. of Sci. & Tech., Taiwan
- Vu Thi Thanh HOA, Oxfam Great Britain, Vietnam
- Yavuz AKPINAR, Bogazici University, Turkey
- Prof. Dr. Paolo DISIA, Free University of Boucano, Italy
- Dr. Hanna ONYI YUSUF, Bello University, NIGERIA

## INTE 2014 Keynotes



*Quality in Turkish Higher Education: Sakarya University Sample*

Prof. Dr. Muzaffer Elmas

The Rector of Sakarya University - TURKEY



*Turkish Higher Education System, New Developments and Trends*

Prof. Dr. Durmuş Günay

Council of Higher Education - TURKEY



*Are you ready today for tomorrow's technology?*

Prof. Dr. J. Ana Donaldson

AECT Former President - USA



*New Trends in Education: Tradition and Innovation*

Prof. Dr. Ozcan DEMIREL

Hacettepe University, TURKEY

## INTE 2014 Keynotes



How mobile technology effectively enhances language teaching and learning performance?

Prof. Dr. Vincent Ru - Chu SHIH

National Pingtung University of Science and Technology, TAIWAN



Leveraging Institutional Capacity Through Research Based Evaluation

Prof. Dr. Douglas Franklin

Ohio University, USA



Why We MOOC: "Philosophy and operations of HarvardX and EdX"

Dr. Robert Doyle

Harvard University, USA

## TABLE OF CONTENT

<b>Reading Comprehension Intervention Program For Teachers From 3rd Grade's students</b>	<b>1</b>
<i>Simone Aparecida Capellini, Cataryne De Almeida Rodrigues Pinto, Vera Lúcia Orlandi Cunha</i>	
<b>Realization Of Digital Oscilloscope With Fpga For Education</b>	<b>8</b>
<i>Berkant Başa, Murat İskefiyeli</i>	
<b>Reception Of Critical Educational Science And The Contemporary Educational Crisis</b>	<b>15</b>
<i>Adnan Tufekçi</i>	
<b>Recognition Of Diversity In The One And Only Ivan From Literature-Based Language Lessons</b>	<b>20</b>
<i>Hyunhee Song</i>	
<b>Record, Evaluation And Planning Of Knowledge Work Experiences On Personal Research Environments Via Life Logging System</b>	<b>22</b>
<i>Buket Kip Kayaba*, Mehmet Emin Mutlu</i>	
<b>Redesigning Education For The Future</b>	<b>28</b>
<i>Luiz Roberto Calado., José Antônio Arantes Salles</i>	
<b>Reform And Development Of Professional Degree Education In China</b>	<b>33</b>
<i>Lu Xiaoyu, Zhou Wenhui, Zhao Qinghua</i>	
<b>Relations Between Operational Chemistry And Physics Problems Solving Skills And Mathematics Literacy Self-Efficacy Of Engineering Faculty Students</b>	<b>38</b>
<i>İbrahim Güneş, Zeliha Özsoy-Güneş, Yasemin Derelioğlu, Fatma Gülay Kirbaşlar</i>	
<b>Relationship Between The National Survey Of Development Of Students (Enade) And Testing Of Sufficiency Federal Council Of Accounting (Fca).</b>	<b>43</b>
<i>Emilio Maltez Alves, Filho Mariano Yoshitake, Jose Antonio Arantes Salles</i>	
<b>Relationship Of Modernism, Postmodernism And Reflections Of It On Education</b>	<b>50</b>
<i>Ayşe Derya Kahraman</i>	
<b>Relationships Among Parents, Students, And Teachers: The Technology Wild Card</b>	<b>55</b>
<i>Eva Patrikakou</i>	
<b>Religious Influence On Education And Culture: Violence Against Women As Common Sense</b>	<b>60</b>
<i>Daniéli Busanello Krob<sup>a</sup>, Luciana Steffen</i>	
<b>Representation Of The Other In George Orwell's Burmese Days</b>	<b>65</b>
<i>Fatma Kalpakli</i>	
<b>Research As A Curriculum Movement: Teacher Protagonism As A Pathway To Learning</b>	<b>70</b>
<i>Angélica Vier Munhoz, Morgana Doménica Hattge</i>	
<b>Research-Based Guidelines For Evaluating Educational Service Website: Case Study Of Thailand Cyber University Project</b>	<b>74</b>
<i>Jintavee Khlaisang</i>	
<b>Review Of The Critical Reading Education In The Primary Schools*</b>	<b>81</b>
<i>Erol Duran- Esra Yalçintaş</i>	
<b>Sekizinci Sınıf Öğrencilerinin Matematik Dersi Yazılı Sınav Puanlarının Teog Sınav Puanlarına Göre İncelenmesi</b>	<b>87</b>
<i>Bulut Yıldıztekin, Gökhan Kumlu, Sinan Yavuz, Levent Yakar</i>	
<b>School Principals' Opinions On The Fatih Project In Turkey</b>	<b>91</b>
<i>Buket Akkoyunlu, Gülsün Baskan</i>	
<b>School Self-Concept Of The Adolescents In The Relation To The Risk Behavior. Age Specifications</b>	<b>96</b>



<i>Michal Čerešník</i>	
<b><i>Science As A Cultural Activity: Comparative Study Of Brazilian And Portuguese Teachers' Conceptions About Science</i></b>	<b>103</b>
<i>Geilsa Costa Santos Baptista, Graça Simões De Carvalho</i>	
<b><i>Searching Of The Concept In Tirilye: An Architectural Design Studio</i></b>	<b>110</b>
<i>Zafer Sagdic, Ali Degirmenci</i>	
<b><i>Selected Examples Of Interactive Teaching Methods In The Centre Of Geoeducation In The City Of Kielce (Poland)</i></b>	<b>116</b>
<i>Anna Świercz<sup>a</sup> Ewelina Smorzewska</i>	
<b><i>Self Esteem Among College Students: A Study Of Satisfaction Of Basic Psychological Needs And Some Variables</i></b>	<b>122</b>
<i>Durmuş Ümmet</i>	
<b><i>Self-Directed Learning, Andragogy And The Role Of Alumni As Members Of Professional Learning Communities In The Post-Secondary Environment</i></b>	<b>127</b>
<i>Rita Egizii</i>	
<b><i>Self-Reflection With Critical Friends And Multisource Feedback Via Online Social Media For Students' Oral Presentation And Self-Esteem</i></b>	<b>135</b>
<i>Pattapee Malisuwan, Jaitip Nasongkhla, Siridej Sujiva</i>	
<b><i>Self-Regulation And Academic Self-Efficacy Of Czech University Students</i></b>	<b>139</b>
<i>Jitka Jakešová, Jan Kalenda, Peter Gavora</i>	
<b><i>Semiology In The Teaching Of History Of Art</i></b>	<b>145</b>
<i>Lütfiye Göktas Kaya</i>	
<b><i>Serious Games Effects: An Overview</i></b>	<b>154</b>
<i>Hans W. Giessen</i>	
<b><i>Should National Accounts Be Taught By Macro-Economists Or Statisticians?</i></b>	<b>158</b>
<i>Stanislava Hronová, Richard Hindls</i>	
<b><i>Sınıf Öğretmenlerinin Okuma Güçlüğü Yaşayan Öğrencilere Yönelik Kullandıkları Eğitsel Uygulamaların Belirlenmesi</i></b>	<b>162</b>
<i>Fatma Susar Kirmizi , İbrahim Halil Yurdakal</i>	
<b><i>Significance Of Supportive Services In Education: School Social Work As A New Horizon In Turkey</i></b>	<b>168</b>
<i>Nurullah Calis, Sırın Targan Calis</i>	
<b><i>Situational Triggering Factors - Adult's "Readiness To Learn"- Connected To Certain Life-Stages And Age?</i></b>	<b>172</b>
<i>Christin Tønseth</i>	
<b><i>Skill Learning Attitudes, Satisfaction Of Curriculum, And Vocational Self-Concept Among Junior High School Students Of Technical Education Programs</i></b>	<b>182</b>
<i>Ya-Ling Wu, Jia-Jen-Hu</i>	
<b><i>Social Inclusion Of Young People From The Most Disadvantaged Social Strata Of The Population In Their Community And School</i></b>	<b>186</b>
<i>Leila Maria Ferreira Salles</i>	
<b><i>Socrates On Teaching: Looking Back To Move Education Forward</i></b>	<b>191</b>
<i>Lynda George</i>	

<b><i>Sound Art And Architecture: New Horizons For Architecture And Urbanism</i></b>	<b>196</b>
<i>Justyna Borucka</i>	
<b><i>Spiritual Approach In Managing Work-Related Stress Of Academicians</i></b>	<b>201</b>
<i>Salasiah Hanin Hamjah, Zainab Ismail, Fariza Md. Sham, Rosmawati Mohd. Rasit &amp; 'Adawiyah Ismail</i>	
<b><i>Starting And Today Of The Interior Architecture Education; A Comparative Research On The Models Of Mimar Sinan Fine Arts University, Sanayi-I Nefise Mekteb-I Alisi (Former Mimar Sinan Fine Arts University) And Ecole Des Beaux Arts</i></b>	<b>205</b>
<i>Cem Doğan, Elif Özdoğlar</i>	
<b><i>Stimulating The Development Of Creativity And Passion In Children And Teenagers In Family And School Environment - Inhibitors And Opportunities To Overcome Them</i></b>	<b>213</b>
<i>Małgorzata Wolska-Długosz</i>	
<b><i>Strategies For Distance Learning To Increase Academic Achievement Of High School Students In Risk Area Of The Southernmost Of Thailand</i></b>	<b>219</b>
<i>Wasant Atisabda, Charuwan Kritpracha , Ophat Kaosaiyaporn , Amornpan Pattaro</i>	
<b><i>Strategies Of Information Communication And Technology Integration By Benchmarking For Primary School In Catholic (Layman) School Administration Club Bangkok Arch Diocese For Students' 21<sup>st</sup> Century Skill</i></b>	<b>224</b>
<i>Chavalee Sakulampaiboon, Jaitip Na Songkhla, Siridej Sujiva</i>	
<b><i>Student Assistance In Higher Education In Brazil</i></b>	<b>229</b>
<i>Francieli Piva Borsato And Jolinda De Moraes Alves</i>	
<b><i>Student Perceptions Of School Climate And Lived Bullying Behaviours</i></b>	<b>236</b>
<i>Huguette Beaudoin, Ginette Roberge</i>	
<b><i>Student Segments Based On The Factors Related To Sense Of Belonging Across Disadvantaged And Resilient Groups In Pisa 2012</i></b>	<b>243</b>
<i>Ayse Aydiner, Ilker Kalender</i>	
<b><i>Student Teachers Evaluating And Assessing Scratch In The Applied Linguistics Classroom</i></b>	<b>249</b>
<i>Clarisa Garcia Quan</i>	
<b><i>Student Teachers' Self-Perception Of Their Mathematical Skills And Their Conceptions About Teaching Mathematics In Primary Schools</i></b>	<b>255</b>
<i>Jean-Claude Boyer, Nicole Mailloux</i>	
<b><i>Students Of Social Pedagogy And Intergenerational Solidarity</i></b>	<b>263</b>
<i>Jana Kitlinska</i>	
<b><i>Subjective Perception Of Coping By Destitute Roma Communities In Slovakia And The Importance Of Education As A Strategy Of Pulling Them Out Of Poverty</i></b>	<b>268</b>
<i>Jurina Rusnáková, Rastislav Rosinský, Marianna Šramková, Miroslava Čerešňíková, Milan Samko, Alena Rochovská</i>	
<b><i>Subjectivity Versus Brazilians Universities' Demand For Objectivity; From Sublimation To Psychoneurosis.</i></b>	<b>273</b>
<i>Rosimê Da Conceição Meguins , Maria De Fátima Carneiro Ribeiro Pereira</i>	
<b><i>Subtypes Of Readers And Spellers In Second Grade Children</i></b>	<b>279</b>
<i>Susanne Seifert, Lisa Paleczek, Susanne Schwab, Norbert Tanzer, And Barbara Gasteiger-Klicpera</i>	
<b><i>Successful And Proactive E-Learning Environment Fostered By Teachers' Motivation In Technology Use</i></b>	<b>287</b>

<i>Ivana Ogrizek Biškupić, Stjepan Lacković, Krešimir Jurina</i>	
<b>Supervision And Appraisal Of Foreign Language Teachers' Performance</b>	<b>293</b>
<i>Paula Vinhais, Marta Abelha</i>	
<b>Surfing The Global Network! How To Incorporate Ict And Social Media In Teaching And Learning Foreign Languages</b>	<b>300</b>
<i>Adriana Prizel-Kania</i>	
<b>Survey And Drawing Representation Of Architecture And Environment: Different Teaching Approach For Architects And Engineers.</b>	<b>305</b>
<i>Giulia Pellegrini</i>	
<b>Sviluppare Un Nuovo Modello Di Uomo: Urge Un Cambiamento.</b>	<b>310</b>
<i>Alessia Parrino</i>	
<b>Symbolic Approach To Education In Ethics</b>	<b>317</b>
<i>Ekaterina Dvoretckaja, Marina Melekhina, Olga Sotnikova</i>	
<b>System Analysis Of Virtual Team In Cloud Computing To Enhance Teamwork Skills Of Undergraduate Students</b>	<b>323</b>
<i>Varit Kankaew, Panita Wannapiroon</i>	
<b>Şiırsel Dilin Mantık Öğretiminde Kullanımı</b>	<b>329</b>
<i>Hülya Altunya</i>	
<b>Tablet As A New Interactive Tool For Education Paleography</b>	<b>335</b>
<i>Pavla Štorková, Jiří Kysela</i>	
<b>Taxonomy Of The Cognitive Domain: An Example Of Architectural Education Program</b>	<b>340</b>
<i>Süheyla Birlik</i>	
<b>Teacher - Pedagogical Creativity And Developer Promoter</b>	<b>346</b>
<i>M. Zivitere, V.Riashchenko, I. Markina</i>	
<b>Teacher Competency Development: Teaching With Tablet Technology Through Classroom Innovative Action Research (Ciar) Coaching Process</b>	<b>352</b>
<i>Jaitip Nasongkhla, Siridej Sujiva</i>	
<b>Teacher Opinions About The Conceptual Challenges Experienced In Teaching Physics Curriculum Topics</b>	<b>359</b>
<i>Işıl Aykutlu, Sevim Bezen, Celal Bayrak</i>	
<b>Teacher's Competences For The Use Of Web Pages In Teaching As A Part Of Technical Education</b>	
<b>Teacher's Ict Competences</b>	<b>372</b>
<i>Jan Kubrický, Pavlína Částková</i>	
<b>Teachers' Organizational Citizenship Behaviors And Organizational Identification In Public And Private Preschools</b>	<b>378</b>
<i>Kamile Demir</i>	
<b>Teachers Personality Of Various Approbation Orientation</b>	<b>383</b>
<i>Katarína Cabanová</i>	
<b>Teachers' Evaluations About Elective Mathematic Applications For 5th And 6th Grade Curriculum</b>	<b>388</b>
<i>Zeynepdemirtaş, Serhatarıslan, Ahmeteskicumali, Esra Civan</i>	
<b>Teachers' Management Roles In The Development Of Communication Skills</b>	<b>395</b>
<i>Corina Constanta Sirbu, Elena Tonea</i>	

<b>Teachers' Opinions About The Renewed Fifth Grade Mathematics Curriculum And Comparison Of Two Versions</b>	<b>399</b>
<i>Zeynep Demirtaş, Serhat Arslan, Ahmet Eskicumali, Gurbet Kargi</i>	
<b>Teachers' Understanding About The Brain In East China</b>	<b>405</b>
<i>Pei, X., Howard-Jones, P.A. , Zhang, S., Liu, X., Jin, Y.</i>	
<b>Teachers' Views Related To The Effectiveness Of In-Service Training Programs In Primary Schools</b>	<b>411</b>
<b>Teaching "Principles Of Ataturk And History Of Revolution" Class At The Universities</b>	<b>417</b>
<i>Şefika Özmen</i>	
<b>Teaching Creativity</b>	<b>421</b>
<i>Leonardo López Monroy</i>	
<b>Teaching Health Information Science For Health Care Instructors</b>	<b>424</b>
<i>Pasquale Fiore</i>	
<b>Teaching In Megastore</b>	<b>428</b>
<i>Michela Mazzucchelli</i>	
<b>Teaching Microeconomic Principles For It Students</b>	<b>436</b>
<i>Emese Tokarčíková, Mária Ďurišová, Alžbeta Kucharčíková</i>	
<b>Teaching Migration Studies Through Collaborative Learning Practices In An Intercultural Environment. The Case Of The Erasmus Ip Sono Un Migrante</b>	<b>444</b>
<i>Paolo Diana, Domenico Maddaloni, Lorenza Melillo, Grazia Moffa</i>	
<b>Teaching Robotics At The Primary School: An Innovative Approach</b>	<b>451</b>
<i>David Scaradozzi, Laura Sorbi, Anna Pedale, Marianonietta Valzano, Cinzia Vergine</i>	
<b>Teaching Simulation In Logistics By Using Witness And Captivate Software</b>	<b>459</b>
<i>Leo Tvrdoň, Karla Jurásková</i>	
<b>Teaching Teachers To Teach Physics To High School Learners</b>	<b>464</b>
<i>Naven Chetty</i>	
<b>Team-Based Learning: Enhancing Academic Performance Of Psychology Students</b>	<b>475</b>
<i>Nadia Rania , Stefania Reborá, Laura Migliorini</i>	
<b>Team-Building In The 24 Seasons Drums Education: From Physical Exercise To Music</b>	<b>480</b>
<i>Soo Mei, Lee @ Jake Lina Lee, Fung Ying, Loo, Zaharul Lailiddin Bin Saidon</i>	
<b>Technical And Entrepreneurial Training For Horticultural Production In Mexico</b>	<b>483</b>
<i>Sergio Roberto Marquez-Berber, Cristina Torcuato-Calderón, Jorge Aguilar-Avila, Gustavo Almaguer-Vargas, Alma Velia Ayala-Garay, And Abdul Khalil Gardezi</i>	
<b>Tension Release In Piano Playing: Teaching Alexander Technique To Undergraduate Piano Majors</b>	<b>487</b>
<i>Fung Ying, Loo, Gabriel Isaac Evens, Mohd Nasir Hashim, Fung Chiat, Loo</i>	
<b>Tensions And Dilemmas In Teacher Professional Development</b>	<b>491</b>
<i>Aik-Ling Tan, Chew-Hung Chang, Paul Teng</i>	
<b>Tevhid-I Tedrisat'tan Günümüze: Türkiye'de Yüksek Din Eğitiminin Kurumsallaşma Süreci</b>	<b>499</b>
<i>Şeref Göküş</i>	
<b>The "Service" Model Of The Competences Of The Municipal Employee As The Basis Of Vocational Training: Russian Experience</b>	<b>505</b>
<i>S.E. Martynova, O.G. Maslennikova</i>	

<b><i>The Analysis Of Intercultural Conflicts Between Students Of Tertiary Education</i></b>	<b>509</b>
<i>Michaela Lukešová</i>	
<b><i>The Analysis Of Pre-Service Teachers' Beliefs About Mathematical Problem Solving</i></b>	<b>521</b>
<i>Gunes Yavuz, Hatice Nur Erbay</i>	
<b><i>The Analysis Of The Problems Posed By Prospective Mathematics Teachers About 'Ratio And Proportion' Subject</i></b>	<b>527</b>
<i>Sare Şengül, Yasemin Katranci</i>	
<b><i>The Aspect Of Proficiency In The Theoretical Overview Of Pedagogical Practice Of Nurses</i></b>	<b>533</b>
<i>Gunta Beta Anita Lidaka</i>	
<b><i>The Aspects Of Spatial Cognitive Mapping In Persons With Visual Impairment</i></b>	<b>540</b>
<i>Hana Majerova</i>	
<b><i>The Assessment Of Drawings Of 5 Grade Students In The State Or Private Schools, According To The Different Variables</i></b>	<b>546</b>
<i>Pesent Dogan</i>	
<b><i>The Assessment Of Learning: From Competence To New Evaluation</i></b>	<b>550</b>
<i>M. Calenda, R. Tammaro</i>	
<b><i>The Behavioral Signs In Bringing Up Phemon (Mon Spirits)</i></b>	<b>561</b>
<i>Auranuch Inta, Prajak Saisang, Kamon Kanguson<sup>c</sup>, Suttichai Yongsuk</i>	
<b><i>The Best Practice In Teaching Process By Using Managerial Simulation Games</i></b>	<b>568</b>
<i>Jindra Peterková, Zuzana Wozniaková</i>	
<b><i>The Change From Parent Education To Parent Involvement In Korea</i></b>	<b>573</b>
<i>Hajeong Lee</i>	
<b><i>The Communication Between Schools And Families From The Perspective Of Parents Of High School Students</i></b>	<b>576</b>
<i>Irena Loudová, Jana Marie Havigerová, Jiří Haviger</i>	
<b><i>The Comparison Of Collocation Use By Turkish And Asian Learners Of English: The Case Of Tcse Corpus And Icnale Corpus</i></b>	<b>581</b>
<i>Elif Tokdemir Demirel, Semir Kazazoğlu</i>	
<b><i>The Concept Of Establishing A Syariah Supervisory Committee In Malaysian Hospitals</i></b>	<b>587</b>
<i>Muhammad Adib Samsudin, Mohd Izhar Ariff Mohd Kashim, Mohammad Zaini Yahaya, Ahmad Munawar Ismail, Rozida Mohd Khalid, Hayatullah Lalulddin, Irwan Mohd Sobri, Syed Azhar Bin Syed Sulaiman</i>	
<b><i>The Decentralization Of Education At Paranaguá County Brazil (1985-2011)</i></b>	<b>591</b>
<i>Mary Sylvia Miguel Falcão</i>	
<b><i>The Design Of A Framework For Cooperative Learning Through Web Utilizing Data Mining Technique To Group Learners</i></b>	<b>598</b>
<i>Pensri Amornsinlaphachai</i>	
<b><i>The Determination Of The Environmental Attitudes Of Secondary Education Students</i></b>	<b>603</b>
<i>Esin Atav, Bahattin Deniz Altunoğlu, Suzan Sönmez</i>	
<b><i>The Development Of An Activity-Based Learning Model Using Educational Mobile Application To Enhance Discipline Of Elementary School Students</i></b>	<b>608</b>
<i>Sasitorn Lijanporn, Jintavee Khlaisang</i>	
<b><i>The Development Of An Augmented Reality Game-Based Learning Environment</i></b>	<b>612</b>

<i>Ching Hui Chen, Chia-Huei Ho, Jau-Bi Lin</i>	
<b><i>The Development Of College Instructors' Technological Pedagogical And Content Knowledge</i></b>	<b>616</b>
<i>Nimer Baya'a, Wajeeh Daher</i>	
<b><i>The Discourse In Mrs. Dalloway By Virginia Woolf And Foreign Language Teaching: The Decline Of Language Learner Anxiety By The Usage Of Hedges, Particular Modals And Adverbs As In The Usage Of These Structures In Mrs. Dalloway For A Specific Purpose</i></b>	<b>624</b>
<i>Suna Akalin</i>	
<b><i>The Education And The Human Capital To Get Rid Of The Middle-Income Trap And To Provide The Economic Development</i></b>	<b>629</b>
<i>Refika Atalay</i>	
<b><i>The Educational Policy Of European Union</i></b>	<b>635</b>
<i>Seda Cankaya, Önder Kutlu , Esra Cebeci</i>	
<b><i>The Effect Of Critical Thinking Disposition On Entrepreneurship Levels: A Study On Future Teachers</i></b>	<b>645</b>
<i>Merve Kirbaşlar,, Zeliha Özsoy-Güneş</i>	
<b><i>The Effect of Educational Context on Affective Characteristics at Korean Students based on TIMSS Mathematics Results</i></b>	
<i>Sangwook Park, Jaok Ku</i>	<b>653</b>
<b><i>The Effect Of Gender And Socio-Economic Status Of Students On Their Physics Conceptual Knowledge, Scientific Reasoning, And Nature Of Science Understanding</i></b>	<b>654</b>
<i>Ömer Acar, Ayşe Büber, Zehra Tola</i>	
<b><i>The Effect Of Group Work On The Self-Efficacy Of Social Work Students</i></b>	<b>659</b>
<i>Özlem Cankurtaran Öntaş, Melike Tunç Tekindal</i>	
<b><i>The Effect Of Learning Styles Of Accounting Education Students On Their Performance: A Field Study</i></b>	<b>664</b>
<i>Yusuf Polat, Ali Aykut Peker, Rabia Özpeynirci, Haluk Duman</i>	
<b><i>The Effect Of Pedagogical Formation Courses Upon The Professional Self-Efficacy Perception Of Pre-Service Teachers</i></b>	<b>672</b>
<i>Hakki Konaş, Mehmet Demir</i>	
<b><i>The Effect Of Physical Fatigue On Short-Term Memory</i></b>	<b>679</b>
<i>Asuman Şahana, Alparslan Ermana, Sebahat Meneka</i>	
<b><i>The Effect Of Simulator-Education On Students Receiving Education At The Department Of Elderly Care</i></b>	<b>683</b>
<i>Ülkü Saygılı, Birol Özkalp</i>	
<b><i>The Effect Of The Computer Assisted Instruction On The Academic Achievement And Retention Of Technical Programme Students' In Vocational Foreign Language</i></b>	<b>688</b>
<i>Hakan Yüksel, Azize Yüksel</i>	
<b><i>The Effect Of Using Multimedia In Teaching Geography On The Achievement And Critical Thinking Skills Of Second Secondary School Students In Ksa</i></b>	<b>694</b>
<i>Theyab Moqbel Hareb Asharari</i>	
<b><i>The Effectiveness Of Similitor Usage In The Paramedic Education</i></b>	<b>698</b>
<i>Birol Özkalp, Ülkü Saygılı</i>	

<b><i>The Effectiveness Of Using Toys In Developing Palestinian Students' Communication Skills And Vocabulary Retention</i></b>	<b>701</b>
<i>Dr. Ibrahim Mahmud Sabatin</i>	
<b><i>The Effects Of Education System On To The Child Labour: An Evaluation From The Social Work Perspective</i></b>	<b>706</b>
<i>Buğra Yildirim, Eda Beydili, Merve Görgülü</i>	
<b><i>The Effects Of Isokinetic Performance On Accurate Throwing In Team Handball</i></b>	<b>711</b>
<i>Emel Çetin, Nilüfer Balci</i>	
<b><i>The Effects Of Self-Regulation Skills On Teog Exam</i></b>	<b>717</b>
<i>Nazife Süer, Sertel Altun</i>	
<b><i>The Evaluation Of The Course Description Quality By Students Of The Psychology Teaching Training Programme</i></b>	<b>726</b>
<i>Dana Malá, Michal Čerešník</i>	
<b><i>The Examination Of Elementary Mathematics Pre-Service Teachers' Spatial Abilities</i></b>	<b>734</b>
<i>Ahmet Şükrü Özdemir, Sevda Göktepe Yildiz</i>	
<b><i>The Examination Of Primary School Students' Attitudes Toward Science Course And Experiments In Terms Of Some Variables</i></b>	<b>742</b>
<i>C. Dilek Eren, B. Karadeniz Bayrak, E. Benzer</i>	
<b><i>The Examination Of The Required Multicultural Education Characteristics In Curriculum Design</i></b>	<b>751</b>
<i>Nevcan Demir, Bünyamin Yurdakul</i>	
<b><i>The Examples Of The Studio Approach That Based On Metaphors</i></b>	<b>756</b>
<i>Emine Yildiz Kuyrukçu, Zafer Kuyrukçu</i>	
<b><i>The Factors Affecting To Selected Study Digital Art Program The Faculty Of Humanities And Social Science Loei Rajabhat University's Students</i></b>	<b>765</b>
<i>Itsariyaphon Chaikulap</i>	
<b><i>The Features Of Schools Which Conducted A Comenius Project And Evaluation Of Features In Terms Of Collaborative Leadership Characteristics</i></b>	<b>771</b>
<i>Berrin Burgaz, Selçuk Turan</i>	
<b><i>The Finland Of Poetry Revisited Four Snapshots</i></b>	<b>780</b>
<i>Matti Itkonen</i>	
<b><i>The Formation Of An E-Portfolio Indicator For Malaysia Skills Certificate: A Modified Delphi Survey</i></b>	<b>788</b>
<i>Mohd Bekri, R. Ruhizan, M.Y. Norazah, M.N. Helmi Norman, Faizal Amin Nur, Y.A, Tajul Ashikin, H.C</i>	
<b><i>The Formation Of Knowledge And Its Active Utilization In Practices Of Public Relations In Organisations</i></b>	<b>796</b>
<i>Veysel Çakmak, Ercan Aktan, Mahmut Mert Aslan Ahmet Köse</i>	
<b><i>The Heritage Central Asian Turkish Music Culture Left To Anatolian Music Culture: Similar Elements In Central Asian-Anatolian Turkish Music Cultures</i></b>	<b>802</b>
<i>Gulsen G. Erdal</i>	
<b><i>The Historical Development Of The Foreign Language Education In Ottoman Empire</i></b>	<b>807</b>
<i>Fuat Boyacıoğlu</i>	

<b><i>The Impact Of Effective Process Of Higher Education On The Quality Of Human Resources In The Czech Republic</i></b>	<b>814</b>
<i>Radomila Soukalová , Marcela Gottlichová</i>	
<b><i>The Impact Of Peace Education Programme At University On University Students' Intercultural Sensitivity</i></b>	<b>823</b>
<i>Yaser Arslan, Gizem Günçavdi, Soner Polat</i>	
<b><i>The Impact Of Progress Testing Of Students On Their Results At Final Exam</i></b>	<b>829</b>
<i>Tomáš Moravec, Petr Štěpánek, Petr Valenta</i>	
<b><i>The Impact Of Technology On Education Theory</i></b>	<b>835</b>
<i>Vít Dočekal, Hana Tulinská</i>	
<b><i>The Importance Of Aesthetics In Theological Education: A Philosophical Reading Of The Recent Discussions In The Turkish Case</i></b>	<b>841</b>
<i>Rifat Atay</i>	
<b><i>The Importance Of Family And Kinship In Turkish Literature : Family And Kinship Tie In Sâmiha Ayverdi's Works</i></b>	<b>847</b>
<i>Meva Apaydin</i>	
<b><i>The Importance Of Teaching Methodology In Higher Education: A Critical Look</i></b>	<b>851</b>
<i>Daniel Carlos Gutiérrez, Elia Guadalupe Villega<sup>b</sup></i>	
<b><i>The Importance Of Working Integrated Learning And Relevant Laboratory Experiments In Engineering Teaching</i></b>	<b>857</b>
<i>Dorina Ionescu</i>	
<b><i>The Institutional Program For Scholarships For Initiation In Teaching In Brazil – And A Teaching Program In Music – The Relation Between Theory And Practice</i></b>	<b>863</b>
<i>Laude Erandi Brandenburg</i>	
<b><i>The Investigation Of Attitude And Readiness Of Information And Communication Technologies Pre-Service Teachers Toward Web Based Learning</i></b>	<b>869</b>
<i>Mustafa Yağci, Didem Alsancak Sirakaya, Gül Özüdoğru</i>	
<b><i>The Investigation Of The Relationship Between Adhd And Visual-Spatial Functions</i></b>	<b>876</b>
<i>Selin Alpanda</i>	
<b><i>The Issue Of Need Analysis And Assessment Of Quality In Teaching English For Medical Purposes</i></b>	<b>882</b>
<i>Petra Zrníková</i>	
<b><i>The Male Identity In Professions In The Field Of Education: A Qualitative Investigation</i></b>	<b>892</b>
<i>Francesco Iovine</i>	
<b><i>The Meaning And Educational Value Of Imagination Through Dewey's Concept Of Experience</i></b>	<b>901</b>
<i>Jung-Son Kwon, Hoy-Yong Kim, Jong-Guy Kim</i>	
<b><i>The Mechanics Of Rigid Bodies In Mechanical Engineering Education</i></b>	<b>904</b>
<i>Billur Kaner</i>	
<b><i>The Need For Teaching Local Arts As An Elective Course: The Art Of Tile Making In Kutahya</i></b>	<b>911</b>
<i>Nida Bayindir, Levent Sevi, Aynur Cukurcalioglu, Ahmet Sami Yucel</i>	
<b><i>The Neuroscience Literacy Of Teachers In Greece</i></b>	<b>918</b>
<i>Deligiannidi, K. And Howard-Jones, P. A.</i>	



<b><i>The Opinion Of Teachers On The Participation Of Immigrant Associations In Schools: A Qualitative Research In Spain.</i></b>	<b>925</b>
<i>Soriano-Ayala, Encarnación And González-Jiménez, Antonio José</i>	
<b><i>The Perceptions Of School Counselors About The Counseling And Guidance Programs Of Vocational High Schools</i></b>	<b>932</b>
<i>Hayriye Torunoğlu, Dilek Gençtanirim</i>	
<b><i>The Polish Horizon In Education - Facts And Fiction</i></b>	<b>941</b>
<i>Leszek Sosnowski, Paulina Tendera</i>	
<b><i>The Popular Education In Rio Grande Do Norte (1948-1964)</i></b>	<b>946</b>
<i>Marlúcia Menezes De Paiva</i>	
<b><i>The Portuguese Online Knowledge Library (B-On): A Year Of Academic Research At Portucalense University</i></b>	<b>953</b>
<i>Manuela Barreto Nunes, Marta Abelha</i>	
<b><i>The Power In Digital Literacy And Algorithmic Skill</i></b>	<b>960</b>
<i>Mária Csernoch, Piroska Biró</i>	
<b><i>The Precarious Teaching Work In The Higher Education In Brazil</i></b>	<b>969</b>
<i>Lorena Ferreira Portes, Jolinda De Moraes Alves</i>	
<b><i>The Problems Of Assessing The Competitiveness Of Russian Graduates</i></b>	<b>976</b>
<i>Tatyana Selevich, Olga Selevich, Vera Golubeva</i>	
<b><i>The Reactions Of Universities To Imposing New A Institutional Pattern: The Case Of Higher Education In Serbia</i></b>	<b>982</b>
<i>Nebojša Janićijević</i>	
<b><i>The Reflection Of Critical Thinking Dispositions On Operational Chemistry And Physics Problems Solving Of Engineering Faculty Students</i></b>	<b>991</b>
<i>Zeliha Özsoy-Güneş, İbrahim Güneş, Yasemin Derelioğlu, Fatma Gülay Kirbaşlar</i>	
<b><i>The Relationship Between Attachment To God And Identity Styles With Psychological Well-Being In Married Teachers</i></b>	<b>999</b>
<i>Zhaleh Refahi, Bahman Bahmani, Ahmad Nayeri, Ramezan Nayeri</i>	
<b><i>The Relationship Between Knowledge Conversion Abilities And Academic Performance</i></b>	<b>1005</b>
<i>Mohamad Noorman Masrek, Nurul Zaki Mohd Zainol</i>	

# Survey and drawing representation of architecture and environment: different teaching approach for architects and engineers.

Giulia Pellegrini

Department of Architectural Sciences, Polytechnic School, University of Genoa, Stradone Sant'Agostino 37, Genoa 16123, Italy

---

## Abstract

The project of knowledge is articulated through various techniques of digital representation through direct and indirect surveys, site and architecture direct observation, reading and manipulation of images, comparison between historical and actual maps, with the aim to critically consider the project as an action in progress in place and time through evaluations of possible future scenarios, especially through digital three-dimensional representations. This paper puts into evidence the need to approach in different forms of teaching different forms of teaching Survey and Representation of architecture and the Environment at the Polytechnic School of Genoa diversified for the courses of Architecture and Civil and Environmental Engineering. The interdisciplinary approach is essential and at the same time determining the educational aims: planning, intended as a deep change in relations between the visual and historical memory of the place and the image that the territory acquires by the "new", requires a capacity for critical reading of the natural and anthropic landscapes in order to provide knowledge, through a stratified description of places.

The courses develop a central theme articulated for topics studied from groups of students, all centered on the matter of the architectonic, urban and territorial representation, comparing the different techniques of the traditional sketch and the contemporary figurative languages (*the project drawing and its performance is addressed through the analysis of a path that highlights the potential conformation and representation of new digital tools*). Topics: • Representation and modeling of architecture in the era of digital media. • New means of communication and creativity in the representation of contemporary architecture. We analyze the theoretical principles of topological surfaces, of hypersurfaces, and architecture of transarchitettura liquid up to design experiments and experiences of these concepts) according to different levels of knowledge

© 2014 The Authors. Published by Elsevier Ltd.

Peer-review under responsibility of the Sakarya University.

*Keywords:* Survey; Digital modelling; Urban landscape; Conservation; Planning

---

## 1. Architecture Survey

The figure of the Professor of drawing Representation at the University of Architecture and Engineering involves a capacity of synthesis of intrinsic and extrinsic characteristics of the discipline of Draw and Survey targeted to different purposes of professional education and training. The Faculty of Architecture in Genoa, Italy, from 2013 sees its transformation into the Polytechnic School (Architecture-Engineering) with the intent to train a professional who has an intellectual and cultural humanistic, and scientific-technical background, in order to be able to develop a plan at the different scales (building, restoration of historic heritage, landscape, etc..) from an in-depth knowledge of complex, cultural, environmental, technical and procedural issues. In relation to the objectives set out in Directive 36/2005/CEE (ex Directives 85/384/EEC and 86/17/EEC 85/14/CEE) the students of the Polytechnic School – Architecture acquire competences about: Design activities related to architectural design refers to different scales from a single building, to the relationship between the spaces, the city, the region and the environment structure, as well as on the existing intervention project, historical and/or modern; the possession of the principal terms of the theoretical lines of the architectural debate in contemporary culture; an adequate mastery of the history of architecture as a fundamental element of the interpretation of the past and of the cultural and methodological basis from the point of view of the signs and meanings; the preparation in the area of techniques of representation and communication as a tool for understanding and modeling in order to understand the project of the physical space. I personally teach at the laboratory of Drawing Representation and at the course of infographic representation in the first year, in order to immediately provide the student with the necessary tools for the proper conduct of expression of the disciplines of the project. For this professional figure the role of the discipline of survey is not only a mere geometric and metric data measuring, but it is a form of knowledge aimed to the architectural project, conservation and restoration approach. During the course of drawing representation special importance is given to the freehand Drawing from life as a first approach to the study of direct and indirect Architectural Survey Project.

---

Corresponding author. Tel.: +39-010-209-5955; +393284439282

E-mail address: [pellegrini@arch.unige.it](mailto:pellegrini@arch.unige.it)

The phase of survey campaign is necessary after a series of lectures on ARCHITECTURAL Draw. The fundamental aspect of the architectural draw is the "reduction" to two-dimensional form of the three-dimensional space of architecture, through appropriate reduction scales. The "Concept of architectural draw" already includes, from antiquity, drawing of all aspects of the process of understanding, planning and communicating architecture planning and of all those addressed to the representation of the existing (survey drawings) to the different purposes of conservation / restauration and study of architecture (treaties, manuals, collections of drawings).

When we talk about architectural draw, we are referring to the drawing as a tool for the architecture, to represent it, and to do it, describing it towards all other possible draws, which tend to other purposes. It is therefore not only the subject to characterize this type of architectural drawing representation, and differentiate it from the architecture design (subject to architectural) and from the scenographic one. It is quite the architectural intention, manifested before the choice of the subject of what we wanted to represent or highlight; then the method of representation, the technique of execution, sometimes by certain conventions, and above all, at the end, to give to the survey and draw the architectural character.

The graphs of architectural draw can be classified into two main types: extrinsic and intrinsic classification.

The extrinsic classification consists of several categories:

1. Depending on the purpose: studies on sites and surveys, through proportioned measurement, or with accuracy, by instruments; sketches and drawings of the project, ranging from the study of the architectural sketches, graphs of plants, sections, elevations, axonometric, perspective, architectural, structural, technological and decorative details (the same survey procedure); perspective views; fantasies; architectural visions;
2. Depending on the method of representation: central projection or perspective drawings, isometric drawings, orthographic projection drawings (plants, facades, sections);
3. Depending on the scale of reduction of the drawing, in the three reading scales: design detail or particular (from scale 1:1 to true, to a scale of 1:25); overall design of individual buildings (scale 1:50, 1:100); design of urban areas and urban structures (scales 1:200, 1:500, 1:1000) and urban, and environmental cartography (scale 1:2000, 1:5000, 1:10,000).
4. Depending on the instrumentation: design with precision tools (squares, rulers, calipers ...); freehand drawings; CAD drawing (the computer aided design);
5. Depending on the technique: just outline drawings, in light and dark, in colour.

The classification intrinsic divided into two categories the architectural drawings, depending on the intention of the architect or engineer rather than an artist: Expressive drawings or Technical Drawings

With these premise the Survey Drawing is the set of operations to determine the shape and size of a building, through a series of drawings (plans, sections, elevations, details), which allow to bring as many features of a building, then a knowledge as widely as possible, including historical-critical documents Archives, and the state of preservation, the fundamental basis for decisions to be taken regarding the building itself. Therefore, a more real "operation knowledge," criticism, which is not a mere drawing representation.

The class' lectures and seminars, will all aim to the comprehension and mastery of the volumetric, spatial, and contextual meaning of the studied objects – both existing and in progress ones. Different kinds of processing are in use: -traditional freehand drawings (sketches, outlines, perspective drawings, axonometric) -bi-dimensional-graphic drawings prepared with traditional methods (orthogonal and axonometric projections) -computer-aid drawings (CAD systems) -tri-dimensional graphical processing (3D) -the rendering process, for both surveys and planning drawings. A complete contextualization of the studied object is addressed by analyzing not only the metric, geometric, and figurative aspects, but also its historic and critic ones, because students will always have to evaluate his/her proposals within the context of the already existing environment, thus compare his/her graphic works with it.

On this basis, the teaching for the architect sees the representation of Surveying Architectural direct and indirect (laser-scanner photogrammetry - photorectifier) aimed to the survey of detail, starting with the free-hand drawing and continuing with the more sophisticated digital representations.

The approach to the actual topic of the relation between the idea and the graphic representation of an idea to the planning level has radically changed compared to the past, really it just apparently denies the memory of the primary slight knowledge of the design meant like draw of the real; it is going away from the consolidated graphical languages that it is believed to have removed the traditional languages, but is just the relation with the history of the graphical –planning representation that allow us to perceive this great change in the perception of the spaces, quite denying the real spaces and trespassing in the cyberspace, enjoying our age, of the ability to create a space "beyond". Fundamental for the understanding of new "means" it turns out to be the analysis of an iter that leaves from the theoretical principles of architecture of the superficial topologic, of the hypersurfaces, the transarchitecture and the liquid architecture until the experiences and to the project experimentations of such concepts. The direct survey, the drawing from life, the investigation by the panoramic to detail are the early steps of analysis aimed to the study of the Survey and after of the Colour Project of painted facades. The compositive architectural facade was created as an expression of the lexical composition of the aggregation highlighting the architectural building elements and their interconnections.

From drawing to wire, the yield of shapes, surfaces, contours and tones and textures through graphics, up to a constant enrichment of their baggage of signs and techniques, everything becomes essential to understand an architectural detail, the relationship between architecture and urban configuration or landscape. Drawing from life, visualization criticism, communication, but this obvious assertion is precisely the most difficult to achieve, because, after a long time, you buy the

powers of observation and execution and the readiness of reading actually that allow you to translate the observed reality in an image rich in meaning and can convey to those who view the drawing, the relationship established between reality and draftsman. Just as a subjective model of reality always different and changing, drawing from life is the result of a complex set of shape analysis, for immediate application of geometric concepts, evaluation tonal character selection, knowledge of graphic techniques and, of course, of critical consciousness. In practice drawing from life allows us to observe how things change depending on the brightness, the distance from the point of view and proximity to other elements; allows us to understand that the signs are never an end in themselves, and that doing the technique must not prevail on observation and transcription of meanings. The images acquired during the photographic survey are altered by computer graphics systems with photo-rectifier first and then with shields contrast, the study of tone, of colorimetric curves in order to identify the different color tones.

## 2.Engineering Survey

My cultural background is strongly linked to the world of architecture and When I was asked to teach a course on Infographics Representation of the Environment as part of the Master of Science Degree in Civil and Environmental Engineering, the first question that I asked myself was that relating to the aims and objectives proposed by the degree course. The objective of CL3 is to prepare students to construction and maintenance of civil works design, infrastructure and equipment; design, planning and management of works and control systems, and monitoring the environment and territory; the assessment of the environmental impacts of plans and works, and then to assess their compatibility with the surrounding environment; management and control of the services of companies operating in the fields of civil and environmental engineering.

In particular, the CL3 in Civil and Environmental Engineering has the goal of providing adequate knowledge of methodological and operational aspects of the engineering sciences, both in general and specifically in relation to those of civil engineering, environmental and land; ability to identify, formulate and solve civil engineering problems and environmental (structural and geotechnical problems of civil construction, industrial and infrastructure by addressing the issues of their impact on the environment, problems related to the planning and design of works to defend the territory; problems related to the design, construction and operation of control systems and environmental monitoring) using up to date methods, techniques and tools; knowledge and understanding of their professional and ethical responsibilities.

On the basis of these proposals, I organized the training course in theoretical and practical lessons that could combine the perspectives of the general to the specific course of representation. Representing the Environment and Territory starts from a vast knowledge base, the student confronts issues dealing with a complex system of factors that interact with each other, several factors that contribute to the final formation of the object of study: Planning and Environment.

Starting from the general, then the representation methods of cartography, from its origins to today, from the definitions of territory, environment, landscape, tracing and analyzing critically the main issues of national and international debate, we were able to deal with issues relating to the representation. Drawing means communicating through drawing, signs, symbols, images, and the rational composition of the final drawing graphics; the deconstruction of information and detail is the foundation of critical knowledge of a portion of territory, the same that will make the student able to unite and coordinate all information collected according to a logic immediate communication.

The aim of the course is was to provide a specific preparation, which prepare the student to correctly describe with photographic images and their digital computer processing the architecture, urban and regional environments.

The course acts as a tool for investigation of issues related to reading, understanding and representation of urban space and territory in order to design, conservation, restoration and recovery. The introduction to the technical tools at our disposal (CAD-GIS-Surveying complex hypertext systems) is directed towards a stratified description of the places that takes care of all the complicating and uncertainty factors that can find a dense form of expression and communication. The operation of detection and the choice of levels of analysis and survey, of the scale representation, the forms of the landscape drawing is, in itself, the first step of a critical operation that led to a multiplication of points of view for the realization of communication drawings related to the peculiarities of the places. Complex and articulated systems able to incorporate, justifiably, types, shapes and multiple codes adapting to the evolution of territory and aiming to identify generative rules and processing which contributes to carry out a task as descriptive fundamental premise of structured project assessment and territory planning. The course develops a central articulated theme performed individually for sub-groups that are formed within the course, all centered on the question of representation of urban and regional planning in modern and contemporary art, with a focus on contemporary figurative languages that are structured according to different levels of knowledge: historical notes on the fundamentals of technical and expressive technical Drawing; Introduction to photogrammetry and photographic techniques to taken on the basis of the approach routes of the sites under study (general principles, photogrammetric survey, the photogrammetric, photointerpretation, orthophotomaps, satellite photos); Inspections related to the topic of investigation of the course through routes by land and sea;

- Practical exercises with individual computer workstations for the deepening of the trials of different imaging techniques (Autocad 2011 - Adobe Photoshop Sketch-Up - Perspective Rectifier);
- Photographic Processing (graphic simulation with digital instrumentation).

As the basis there are the theoretical and application knowledge of the drawing representation of space as the context of the environment and the ability to use the design as a tool of investigation and interpretation of the laws governing the formal structure of the elements of the territorial and environmental factors. Through lectures I teach the aims of the urban survey

related to the historical tradition of Italian by the explanation of : methods and tools for the survey and analysis of the environmental context ( the relationship between the natural and built environment, the reference cartography, the importance of environmental data and the definition of its qualitative values); methods and instruments for urban survey trough urban cartography of reference, the importance of qualitative and quantitative data of urban areas, the coding systems, critical reading of the urban fabric of the city center (training and later stages of growth), the reading of vegetation, the cataloging of data and compilation of technical-descriptive summary; The relationship between environment reading and project.

Essential to the proper approach for this type of research is was the seminar of the theoretical approach to critical reflection on: urban responsibility of the project also through the study of the territory (the geomorphological characteristics, development elevation, hydrography, climate, exposure, natural and anthropogenic, roads and infrastructure ; Analysis of visibility: a study of mapping with the observation points from the coast and from internal routes with the identification of the prominent elements, incongruous and congruous.

The active conservation and redevelopment of places require interventions to integrate the objectives of preserving the historical and socio-economic landscape with the revitalization and improvement of the existing conditions in compliance with the specific regulations and guidelines at European and national levels: The European Landscape Convention, 2000; The European Charter for Sustainable Tourism (sustainable), 2000; The National Strategic Plan for Rural Development - Rural Development Program 2007/2013; Global Conference on the Urban Future, Berlin in 2000; Municipal Code of 2004 (DL 22. 1., 2004, n. 42) Municipal Plan for Cultural Heritage and Landscape subject to protection and the study for the definition of the discipline of landscape. Analysis and detection of environmental landscape values of the non-urban territory of Genoa, 1997.

Fundamental for the understanding of the relations between architecture and environment is the 3d studies of the territory and of the settlement (AutoCAD and Sketch Up)

During the lessons in the computer lab tutorial videos are viewed online in the original language with application examples of specific items of use of the program.

Survey and analysis of the landscape , is conducted following a method characterized by three types of approach CHRONOLOGY-STRUCTURAL-PERCEPTUAL:

1. chronological analysis History and layering of events and speeches; survey of the evolutionary tracks; identifying overlapping and permanence. This first phase of the investigation provides the study and analysis of the effect of permanence of resources in the area: both agricultural areas, rural and coastal areas that urbanization, large equipment and infrastructure, with the identification of land and areas subject to pressure.

2. structural Analysis : Mass point of survey instruments designed to identify and compare the status quo with respect to natural and human systems. Natural System: Geomorphology, Hydrology, Vegetation, position, geological indicators, main ridges, river network. Anthropic System: settlement (rationalize data relating to Urban, peri-urban, industrial, rural, cultural, infrastructure; system of green (Open spaces, green areas, historic parks and gardens) and the agricultural system (systems of agricultural landscape, land use , water systems management)

3. Visual-perceptual analysis : perceptual , social and cultural Characters,: preeminent value characters, Emergencies visual points of imbalance. Visual planes, scenic spots: areas and scenic routes, visual variety paintings, openings visual, obstructions visual Visual pictures: beauty scenic, natural areas, main routes, historical and cultural identity; isolated elements, beauty of the whole, accessibility.

Il corso si articola in lezioni teoriche (30 ore) e in esercitazioni pratiche (30 ore) di tipo sia tradizionale che informatico. Le esercitazioni pratiche sviluppano in elaborati grafici, visite esterne ed elaborazioni al calcolatore alcuni temi degli argomenti di lezione, secondo un processo di apprendimento continuo e coordinato tra teoria e applicazioni.

The course consists of lectures (30 hours) and practical exercises (30 hours) at the pc stations. The practical exercises develop into drawings, external visits and elaborations to the computer some of the themes of the topics of the lesson, according to a process of continuous learning and coordinated between theory and applications.

## References

- G. Pelelgrì, Sistemi infografici di Rappresentazione dell'Architettura e dell'Ambiente. Un'esperienza didattica, Graphic Sector, Genova. 2009, Italy.  
Cento, Rilievo edilizio architettonico, Genova, 1979  
M. Docci, D. Maestri, Il rilevamento architettonico. Storia, metodi e disegno, Laterza, Bari, 1984.  
Giovanni Carbonara, Restauro dei monumenti. Guida agli elaborati grafici, Roma 1985.  
P. Marconi, Manuale del Recupero del Comune di Roma, ed. Dei, Roma, 1989  
M. Docci, F. Mirri., La redazione grafica del progetto architettonico. Repertorio di disegni esecutivi per l'edilizia, Ed. Carocci-Roma 1989  
L. Marino, Il rilievo per il restauro, HOEPLI, Milano, 1990  
AA.VV., Architettura Rilevata. Didattica del rilievo per l'architetto, Bozzi ed., Genova, 1992.  
M. Docci, R. Migliari, Scienza della rappresentazione. Fondamenti e applicazioni della geometria descrittiva, NIS, Roma 1992.  
P. Falzone, La rappresentazione dello spazio strutturato. in "Atti del XIII Convegno Internazionale dei docenti delle discipline della Rappresentazione nelle Facoltà di Architettura e Ingegneria", 1991 Lerici, Ed. a cura dell'Istituto di Rappresentazione Architettonica, Fac. di Architettura di Genova, 1992,  
Mario Docci, Diego Maestri, Storia del rilevamento architettonico e urbano, ed. Laterza, Bari 1993.  
L. Sacchi, L'idea di rappresentazione, Kappa, Roma 1994;  
M. Docci, D. Maestri, Manuale di rilevamento architettonico e urbano, Laterza, Roma-Bari, 1994

R. De Rubertis, Il disegno dell'Architettura, NIS, Roma 1994;  
AA.VV., Capitolato Speciale di Appalto per il Rilevamento Architettonico a Fini di Restauro, Ministero per i Beni Culturali e Ambientali-Università " La Sapienza ", Edizioni Kappa, Roma, 1994  
G. Rocchi, Istituzioni di Restauro dei Beni Architettonici ed Ambientali, HOEPLI, Milano, 1994  
L. Sacchi, L'idea di rappresentazione, Kappa, Roma 1994;  
M. Unali, Il disegno per il progetto dell'architettura, Kappa, Roma 1996;  
Cancheri G., Giordano A., Guggia A., AutoCAD\_ metodo e pratica, Edizioni Diade, Padova, 1998.  
P. Tunzi , Rappresentazioni d'Architettura, LdU, Pescara, 1999;  
M Docci , D. Maestri, Scienza del disegno. Manuale per le facoltà di architettura e di ingegneria, Utet-Torino, 2000.  
Migliari R., Fondamenti della Rappresentazione Geometrica e Informatica dell'Architettura, Edizioni Kappa, Roma, 2000.  
Chitone E., Tornincasa S., Disegno tecnico industriale (vol.1), Edizioni Il Capitello, Torino, 2000.

INTE 2014