#### 主題: 「国際的共同学位による新たな人材育成の可能性」

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# Towards Global Education Competence: Current Practice and Visions of SNU College of Educ ation







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#### **Tohoku University 2011**



# **Contents of Presentation**

- about Korea
- Korean Education
- Seoul National University (SNU)
- SNU College of Education: Practice
- SNU College of Education: Visions
- Korea's Global Teachers University (GTU)
- Conclusions



# **General Backgrounds** (2009)



- Divided from North Korea since 1945
- Population : 49 million
- Area : 99,700 km<sup>2</sup>
- Ration of Mountain Area : 70%
- Population Density : 483 / km<sup>2</sup>
- PPP GDP per capita : USD 27,658
- Weather : Four Seasons, Rain 1, 245 mm/yr
- Industry : IT, Electronics, Heavy Industry
- Birth Rate : 1.15 babies, world lowest
- Ratio of R&D Expenditure to GDP : 3.21%









# **Constraints of Korea**



- WITHOUT Natural Resources
- WITHOUT Inherited Science, Industry, Wealth
- WITHOUT English advantage



- WITH Japanese occupation (1<sup>st</sup> half of 20<sup>th</sup> C)
  - WITH Korean War (1950-53), nothing but People!
- WITH 4 Super Powers (China, Russia, Japan, US)
- WITH the separation from the North (Korea)



# **Shared Cultures of Korea & E. Asia**

about Korea
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<b>SNUCE Practice</b>
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## **君師父一體** → King-Master-Father Trinity

學而時習之 不亦說乎 → Learn and practice from time to time... Isn't it a wonderful life? (by Confucius)

先公後私 → Put public first!



## **Education in Korea**



about Korea

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Conclusions

According to the Newsweek's the World's Best Countri es in 2010, S. Korea ranked as the 15<sup>th</sup> in the world, wit h the 2<sup>nd</sup> in Education (only after Finland).





#### Seoul National University

# **Barak Obama's Praises of Korean Ed.**





"Our children spend over a month less in scho ol than children in South Korea. That is no way to prepare them for a 21st century economy. T hat is why I'm calling for us not only to expand effective after-school programs, but to rethink t he school day to incorporate more time ... If th ey can do that in South Korea, we can do it rig ht here in the United States of America." ( <u>March 10, 2009, Education Speech</u>)

"In South Korea, teachers are known as 'nation b uilders.' Here in America, it's time we treated the people who educate our children with the same I evel of respect." (*The Korea Herald*, 26 Jan. 2011)

#### Seoul National University

# Korean Minister's View on Korean Ed.





• 안병만 교육과학기술부 장관(오대일 기자/자료사진)

Mr. B.M. Ahn, on March 25, 2 011 at the annual meeting of t he Association for Education Finance and Policy in the US "Although the pain of memorizing is unavoida ble for young students to acquire new knowle dge, they should also be motivated by the ple asure of creative expression. ... However, we force the students to memorize so much that t hey experience pain rather than [the] pleasure [of] acquiring knowledge through the learning process." ...

"Extreme parental pressure is not something t o be envied... The Korean case illustrates it is possible to have too much of a good thing." ( Cavanagh, 2011).





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# Korean Ed. System

about Korea

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SNU

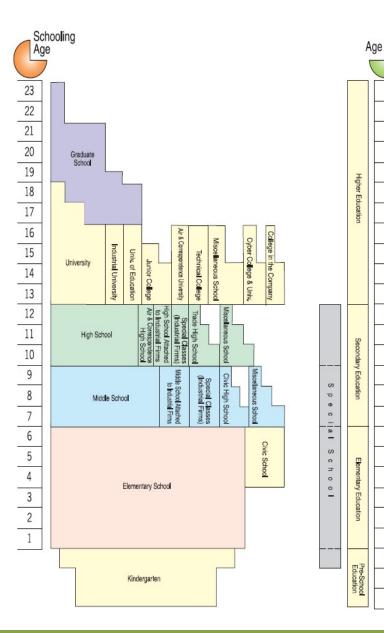
SNUCE Practice

**SNUCE Visions** 

**GTU Project** 

Conclusions

- (3) 6-3-3-4 (2-3) system
- Sch. Year : March  $\rightarrow$  Feb.
- Compulsory : 9 years
- 87% entering Higher Ed.
- Univ. (173), Junior Col. (158)
- Teachers through College of Ed. & Univ. of Ed.
- Very Tough Competition for Good Universities
- Public Education Expenditure to GDP : 4.2%







# **Administrative Aspects of Korean Ed.**

about Korea Korean Ed.		Features	Data
SNU SNUCE Practice		Ministry	MEST (Ministry of Ed., Science and Technology) Minister + 2 Vice Ministers (Ed. + Science & Tech.)
SNUCE Visions GTU Project	Govern- ment	Advisor to the President	Senior Secretary for Education and Culture
Conclusions		Administration	MEST + 16 Regional Education Offices
		Administration	Principal → Vice Principal → Subject Head Teacher
		Departments	Academic, Students, Grade (1, 2, 3), Subjects
	School	Assessment Time	Mid. & Final term exams, Formative assessment
		Assessment Type	Mixture of essay, multiple choice, and practical wor k
		School Hour (minutes)	40 for Elementary, 45 for Middle, 50 for High schools





# **Administrative Aspects of Korean Ed.**

about Korea	<b>Educational</b>	Statistics (2009)♪	
Korean Ed.	Category	Features	Data
SNU		Total Public Expenditure on Education	4.2%
SNUCE Practice		Pupil-Teacher Ratio (Primary School)	26.7
SNUCE Visions	Educational	Pupil-Teacher Ration (Secondary School)	18.0
GTU Project	Background	Secondary School Enrollment	96.0%
Conclusions		Higher Education Achievement (25-34 yrs)	53.0%
		Quality of Educational System (1 – 7)	4.38

#### **PISA Ranks (15yrs) in Reading, Mathematics and Science Literacy**

	2000	PLUS	2003	2006	2009
Reading	6	6	2	1	1
Mathematics	2	3	3	1	2
Science	1	1	4	7	4
Problem Solving	-	-	1	-	-
Participating Countries	31	41	40	57	34 +



# Achievements vs. Engagements in E. Asia

about Korea
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#### Very High Performances in Reading, Math & Science

- Quite Low Science Engagement Scores (esp. Self-concept)
- Korea & Japan : among the lowest in Engagements

#### Table 5 2006 PISA Results in East Asia

2006 PISA Rank	(out of 57)	China Mainland	Hong Kong	Japan	Korea	Taiwan	Av.
Performance	Reading	-	3 (536)	11-21 (498)	1 (556)	12-22 (496)	(478)
Rank (Score)	Mathematics	-	1-4 (549)	7 (523)	1-4 (547)	1-4 (547)	(485)
Rank (Score)	Science	-	2 (542)	5 (531)	7-13 (522)	4 (532)	(488)
	Self-efficacy	-	531	391	455	543	507
Science	Self-concept	-	266	134	159	223	329
Engagement	Enjoyment	-	362	224	245	313	286
Scores	Future-oriented Motivation	-	149	83	79	123	116



# **Teacher Qualifications in Korea**

	Ar	ea	Sub-areas	Details			
about Korea Korean Ed.			Primary Teachers	National Universities of Education			
SNU SNUCE Practice	Pre-service Education In		Secondary Teachers	Colleges of Education in Univ. / Teacher Certificate Course in Undergraduate / Graduate Course of Education			
SNUCE Visions GTU Project Conclusions		Pedagogy	Theories of Education	Minimum of 14 units covering at least 7 cours es for education (Introductory Education, Philo sophy & History, Curriculum, Assessment, The ory & technology, Psychology, Sociology, Adm inistration & Management, others)			
	Require- ments for	Courses (Minimum Of 22 units)	(Minimum	(Minimum	(Minimum	Basics for Teaching Profession	Minimum of 4 units covering Understanding St udents of Special Care (at least 2 units) and P racticum of Teaching Profession (at least 2 uni ts)
	Teacher Certificate		Teaching Practice	Minimum of 4 units covering School Practicum (at least 2 units) and Educational Volunteer Work (up to 2 units)			
		Major	Subject Knowledge	Minimum of 21 units covering at least 7 Basic Courses of the subject			
		Courses (Minimum Of 50 units)	Subject Education	Minimum of 8 units covering at least 3 subject education courses (inc. Subject Logic and Ess ay)			





about Korea			
Korean Ed.			
SNU SNUCE Practice SNUCE Visions GTU Project	Recruitment Method	Public Schools	<b>3 Stage Recruitment Tests</b> (Candidates apply to one of Local Education Offices, but the Tests are organized together by all Local Education Offices.)
Conclusions		Private Schools	Each school's own process, but recently through a common process for teacher recruitment.
	Public	1 <sup>st</sup> Stage	Multiple Choice type questions for educational theories, subject knowledge, & subject education
	School Recruitment	2 <sup>nd</sup> Stage	Essay type questions for advanced knowledge of subject knowledge and subject education
	Process	3 <sup>rd</sup> Stage	In-depth Interview and Demonstration of Teaching Skills



# **General Features of Korean Education**

#### about Korea

Korean Ed.

- SNU
- **SNUCE Practice**
- **SNUCE Visions**
- **GTU Project**
- Conclusions

- Very high zeal for education by parents
- Very high competition for Best Universities (e.g. SKY Unis)
- Education determined by Univ. Entrance Exams.
- Parents' Heavy Reliance on Private Education
- Excellency vs. Equity (e.g. Special Sch. Vs. Ordinary Sch.)
- "Education is more political than politics itself in Korea."
- High Performance, LOW Enjoy & Satisfaction
- HIGH level of Pre-service Teachers' potential (top 5~10%)
- LACK of Diversity and Creative approaches





## **Seoul National University (SNU)**



# **Statistics of SNU (2011)**



about Korea Korean Ed. SNU SNUCE Practice SNUCE Visions GTU Project Conclusions

- Established in 1946, by integrating existing Colleges
- (Schools) 16 Colleges + 1 Grad. Sch. + 9 Special G. Sch.
- (Faculty) 1,870 full members + 3,681 other kinds members
- (Staff) 1,012 administrative staff members
- (Students) 16,325 UG + 7,712 Master + 2,904 Doctoral
- (International) 242 faculty members + 2,694 students
- (Research) Papers in SCI Journals 2010: 20<sup>th</sup>
- (Ranking) QS World University Ranking 2011: 42<sup>nd</sup>
- (MOU) 220 at Uni., 353 at College, 241 Institution Levels



# **Recent Emphases of SNU**





- a World Class Research-Oriented University
- Down-sizing student numbers (UD & PG)
- Diversifying students' abilities and recruitment areas
- Priority to recruiting new International Faculty members
- Dual degrees with foreign institutions
- Students' Exchanges (Inbound as well as Outbound)
- Quality, rather than Quantity, in research
- Increase of Courses taught in English





# **SNU College of Ed. (SNUCE)**





# **Features of SNUCE**

about Korea
Korean Ed.

- SNU
- **SNUCE Practice**
- **SNUCE Visions**
- **GTU Project**
- Conclusions

- 4 years' pre-service teacher education (BA/BSc)
- a Balance between contents & pedagogy (E. Asian type)
- Students of highest potential (esp. UG educational studies)
- Research-oriented (2yrs' Master & 3 yrs' Doctor courses)
- a wide range of disciplines (15 Dept & 7 programs)
- 4 experimental schools (1 Ele., 2 Middle, 1 High Schools)
- Strong R&D Links (Res. Institutions and Training Centers)
- Internationally recognized academic activities (esp. two BK21)
- Links with oversea institutions (MOUs, Dual degree, Alliance)
- Influence over national policies (PMs, Ministers, Nat'l Curri.)





# **Dept. & Degree Programs in SNUCE**

#### about Korea

**SNUCE Practice** 

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Conclusions

Korean Ed.

**SNU** 

### 15 Departments (BA/BSc, M.Ed., Ph.D)

- Education
- Korean & KFL Education
- French Education
- Social Studies Education
- Geography Education
- Mathematics Education
- Physics Education
- Biology Education
- Physical Education

- English Education
- German Education
- History Education
- Ethics Education
- Chemistry Education
- Earth Science Education

### 7 Interdisciplinary Programs (M.Ed., Ph.D)

- Home Economics Education
- Music Education
- Fine Art Education
- Global Education Cooperation
- Early childhood Education
- Special Education
- Environment Education



#### Seoul National University

# **SNUCE: Practice (research)**

about Korea	a 🎸	Educat
Korean Ed.		- Asia Pa
SNU		- The SM
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<b>SNUCE Visi</b>	ons	
<b>GTU</b> Project		
Conclusions	6	<
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	Hoam Convention Center Seoul National University, Korea	
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ICER Seoul National Univ

#### Educational Journals (English) from SNUCE

- Asia Pacific Education Review (SSCI)
- The SNU Journal of Education Research





#### Regular International Conferences

- SNU ERI Int'l Conf. on Education Research
- Int'l Conf. of Science Education for Next Society

The 3rd International Conference on SENS The Role of Science Education in High-Tech Society

> October 30 - November 1, 2008 Seoul National University, Seoul, Korea http://sens.snu.ac.kr/icsens



# **SNUCE: Practice (research) BK21 group**



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2001	KOMOO

Korean Ed.

**SNU** 

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Conclusions

#### SENS(Sci. Ed. for the Next Society) http://sens.snu.ac.kr/

- Aims : (Education) Improving capacities & environment for education (Research) Making research outcomes of the world level
- 17 professors + about 50 PG students + 5 postdocs + 2 staffs

#### 5 Research Teams :

-10, 2011

- Professionalism of science teachers
- High-tech media-based science education
- Highly advanced science education
- Customized science education
- Science & culture education

#### Supports for Students' Research :



- monthly living allowance
- participation to international conferences
- paper publication charges
- incentives for best research performance
- monthly seminars by invited speakers
- Invitations of international scholars

i) 151-742 서울특별시 관악구 신형9동 산 56-1인지 서울대학교 사법대학 교육정보관 (16-1등) 608호 / 609호 - 전화 62-880-4487 - 팩스 62-886-44 PP/NEGHT (C) 2006 미빙사회 과학교육 연구 사업단, ALL RIGHTS RESERVED.



# **SNUCE: Practice (research) BK21 group**

#### about Korea Korean Ed. SNU SNUCE Practice SNUCE Visions

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#### Foreign Faculty Members

- Junhua Yu (China) Nanobio Science
- Sonya Martin (USA) Socio Cultural Education in Science

#### Foreign Students

- 1 master student (USA)
- 1 ph.d. student (USA)

#### International Conferences (co-hosted)

- The 4th NICE (Network for Inter-Asian Chemistry Educators) Symposium
- 2011 EASE (East-Asian Association for Science Education) Conference
- 2011 NTNU-HU-SNU Joint Symposium on Science Education

#### Oversea Working former Postdocs

- Dr. Mijung Kim (University of Alberta, Canada)
- Dr. Minkee Kim (Bilkent University, Turkey)

### Visiting Speakers for SENS Seminars

- 9 speakers from USA
- 1 speaker from UK
- 1 speaker from Turkey
- 2 speakers from Australia
- 1 speaker from Japan

#### Seoul National University

# **International Links of SNUCE**

about Korea
Korean Ed.
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SNUCE Practice
SNUCE Visions
SNUCE Visions GTU Project

- Wisconsin-Madison, Northern Iowa, USC (US)
- IOE, KCL, Aston, Edge Hill (UK)
- National Institute of Education (Singapore)
- Tokyo, Hiroshima, Tsukuba, Kushu Uni. (Japan)
- Peking, Beijing Nor., Zhejiang, E. China Nor. Uni. (China)
- Sydney, Melbourne Uni. (Australia)
- Auckland Uni. (New Zealand)
- Malaya Uni. (Malaysia)
- Chulalongkorn, Srinakharinwirot Uni. (Thailand)
- Rome Uni. (Italy)
- Alberta Uni. (Canada)
- INACO, Grenoble (France) etc.





# **Participating in International Links**

about Korea
Korean Ed.
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SNUCE Practice
SNUCE Practice SNUCE Visions

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Conclusions

- International Alliances of Leading Education Institutes
  - Institute of Education (IOE), UK
  - Danish School of Education, Aarhus, Denmark
  - Beijing Normal University, China
  - Faculty of Education, University of Melbourne, Australia
  - National Institute of Education, NTU, Singapore
  - College of Education, Seoul National University, Korea
  - OISE, University of Toronto, Canada
  - School of Education, University of Wisconsin-Madison, USA

#### • APRU (Ass. for Pacific Rim Uni.) Ed Deans Program

v•d•e	Association of Pacific Rim Universities (APRU) [hide]	
China	Fudan • Nanjing • Peking • Tsinghua • USTC • Zhejiang	
China	Hong Kong · HKUST	
Japan	Keio • Kyoto • Osaka • Tohoku • Tokyo • Waseda	
South Korea	Seoul National (SNU) · Korea (KU)	
Russia	Far Eastern Federal (FEFU)	
Canada	British Columbia (UBC)	
Mexico	Monterrey Institute of Technology • UNAM	
United States	Caltech • Stanford • UC Berkeley • UC Davis • UC Irvine • UCLA • UCSD • UCSB • Oregon • Southern California (USC) • Washington	
Australia	Australian National (ANU) • Melbourne • Sydney	
New Zealand	Auckland	
Chile	Chile	
Indonesia	Indonesia	
Malaysia	Malaya	
Philippines	University of the Philippines (UP)	
Singapore	NUS	
Taiwan	National Taiwan (NTU)	ľ
rsity, De Thailand	Chulalongkorn	



# SNUCE's Dual Degree Program with U. of Alberta

#### about Korea Korean Ed. SNU SNUCE Practice SNUCE Visions GTU Project Conclusions





#### **Dual Degrees**

- MA/MSc/MEd and PhD/EdD
- between SNUCE and Faculty of Education, U. of Alberta
- Requirements
  - at least 1 year for MA/MSc/MEd & 1.5 years for PhD/EdD at the home institution
  - co-advisors from the both sides
  - **Registration & Payment** 
    - students' responsibility for all cost for studying abroad
    - full tuition at home institution & other fees for studying abroad
- Course Credit
  - Up to a half of the total credits required can be transferred.
  - Must satisfy all the degree requirements of the both sides
- Dissertation & Committee
  - dissertation in English & a summary (abstract) in both languages
  - one joint dissertation committee (and advisors from the both)



# Students' Global Education Leadership Programs of f SNUCE

#### about Korea

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Conclusions

### (Type 1) Mid & Long Term Visit

- Denmark, France, Italy, Spain etc.

- 1 year ~ 6 month

### (Type 2) Short Term Visit (from 2009)

- 1 Week Visits to European & US Universities
- Lectures in Uni. + Observation at local schools
- (in 2012) five groups of UG students of SNUCE to US, UK, France, & Germany





### **Global Education Cooperation (GEC), SNUCE**



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- Established in 2009 as an Interdisciplinary PG Program
- Degree Programs (MA & Ph.D)
- Non-Degree Programs
  - Global ODA Consultant Certification Program
  - Intensive program for foreign educational experts
- International Partners
  - ADEA (Ass. for the Development of Education in Africa, Tunis)
  - UIL (UNESCO Institute for Lifelong Learning, Hamburg).
  - UNESCO Bangkok Regional Office♪
  - Paulo Freire Institute-International, Sao Paulo
  - EWB (Educators without Borders, Seoul)♪
  - British Council in Seoul (TBC)♪
  - Ilga Canaan Foundation, Korea





ber 9-10, 2011

#### Seoul National University

### **Global Education Vision of SNUCE**

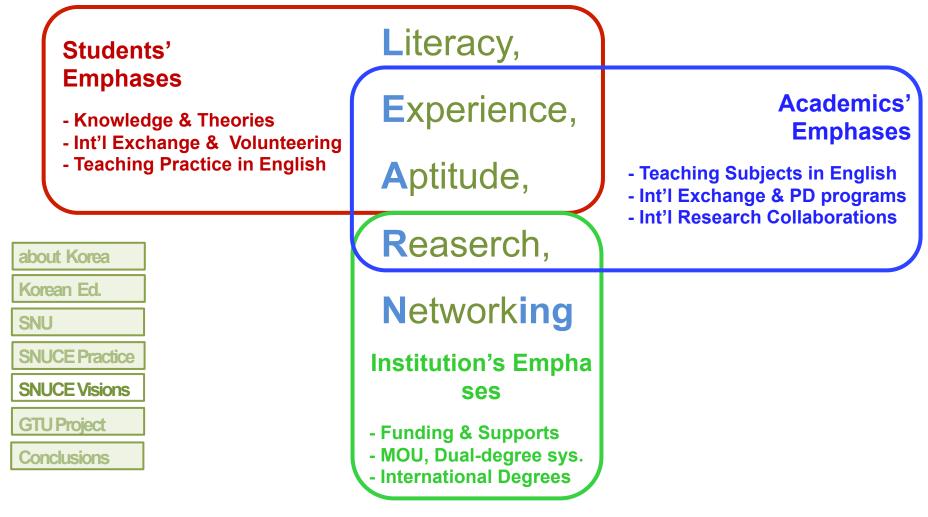
about Korea Korean Ed. SNU	SNUCE's Global Education vision is to build the GEC (good obal education competence) of Korea, on the basis of is GLOBAL LEARNing environment.		
SNUCE Practice SNUCE Visions GTU Project Conclusions	* GLOBAL:	Global Leadership with Open & Balanced Appreciation of Local Needs	
	LEARNing:	Literacy, Experience, Aptitude, Reaserch,and Networking for global education	





### **Global Education Vision of SNUCE (GTU)**

### GTU LEARNing Emphases :





## Korean Government's GTU (Global Teachers Uni.) Projec





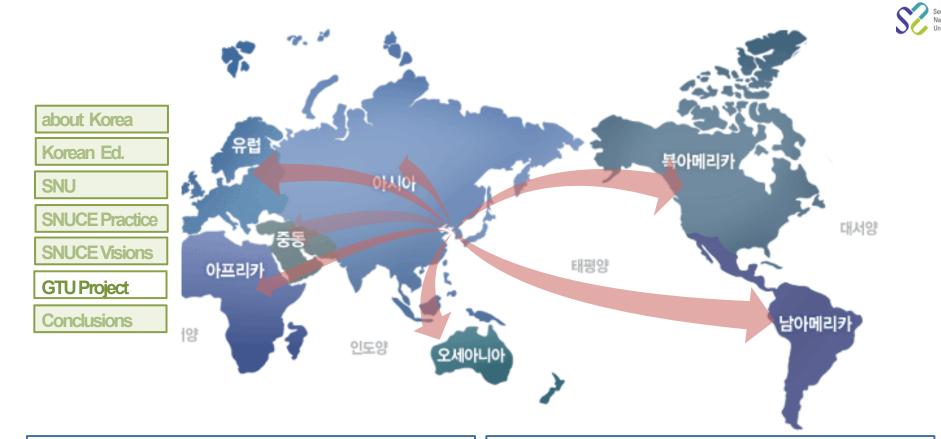
### Globalization of Teacher Ed. Institutes

- Selection of and Supports for GTUs
- Global Teacher Programs (GTP) in GTU
- Global Teacher Training Center (GTTC) in GTU

#### Supporting System for Global Exchange of Teachers

- Expanding Exchange and Dispatch of Teachers for Education Diplomacy
- Developing a Supporting System for Teacher Exchange





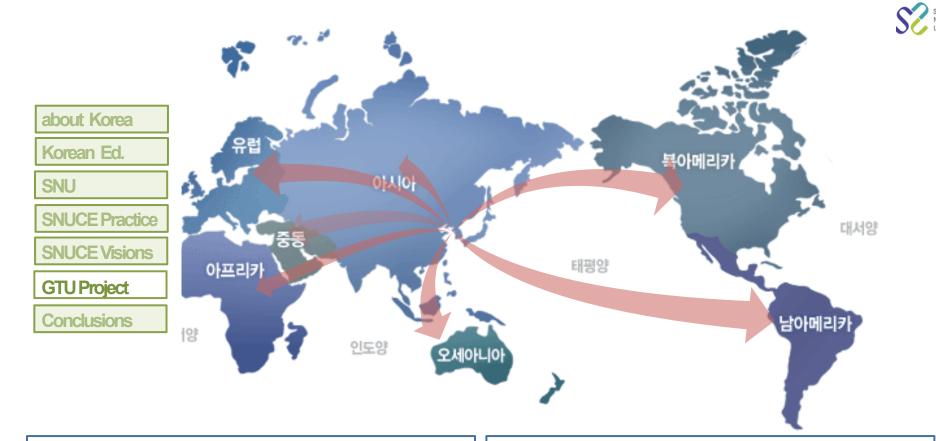
#### **Teachers' Oversea Advancement**

- Math & Science Teachers Oversea Adv ancement (in 2010, 13 to UK, 8 to Cana da)
- Certificate Holders' Oversea Advancem ent (in 2011, 25 to US
- Teacher Visits to Int'l Research Institute s (e.g. in 2011, 20 to CERN)

#### **Exchanges & Joint-Teaching**

- Teacher Exchanges and Collaboration (in 2011, 30 to US)
- Through NSF link, Teacher Exchange p rograms between Korea and US (funde d by the both sides)





#### Special Courses for TIE in Uni.

- TIE (Teaching in English) for improving global teaching ability and skills
  - TEE (Teaching English in English)
  - TME (Teaching Mathematics in English)
  - TSE (Teaching Science in English)
  - TKE (Teaching Korean in English) etc.

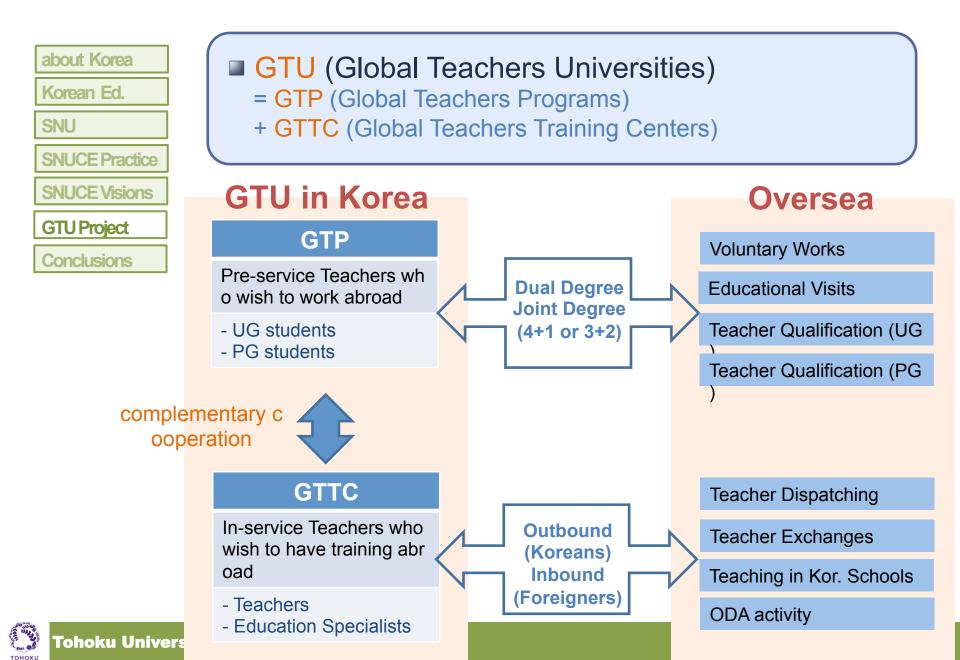
#### A Portal for Teacher Oversea Advancement

- TEACH(Teacher Excellence in Action & Collecti ve Harmony in the world)
- Integrated Oversea Service = Oversea training of in-service teachers + Oversea advancement of pre-service teachers + Local education office s' oversea teacher training



### **Korean Government's GTU Project**





## Conclusions



about	Korea

- Korean Ed.
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- **SNUCE Visions**
- **GTU Project**
- Conclusions

- Korea has nothing but people and education.
- Korea has been successful to catch-up.
- But, now we need more diversity & creativity.
- SNU is in need of a quality jump.
- SNU & SNUCE seek learning from others.
- International collaboration is the key. (EU experience)
- Education is local as well as global.
- Solution States Stat





# Thank you for your attention

# 감사합니다.

# ありがとうございます.

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