# CREATIVE EDUCATION IN TAIWAN



教育部 Ministry of Education Taiwan, Republic of China (R.O.C) 2005

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#### Preface

#### **Preface**

In February 13-15, 2004, the Ministry of Education in Taiwan held the Creative Education Exhibition. Although the exhibition originally planned to include over 500 displays, due to time and space constraints, the number of booths was limited to 200. The past exhibition included a number of projects and activities that the Ministry of Education, higher education institutions, non-government organizations, research centers, and foundations have arranged and implemented.

Why did we wish to publish "Creative Education in Taiwan?"

In 2002, the Ministry of Education commissioned a pilot study on creative education. The research project was a collaborative effort that incorporated six research teams composed of graduate students and professors to gather available data in efforts to paint a clearer picture of Taiwan's past and present efforts on creative education. Specifically, each team observed and studied creative education programs at the elementary, junior high, senior high, and university levels, both in Taiwan and abroad over a period of ten months. The project's results were the basis for "White Paper on Creative Education." Consequently, based on the information, suggestions, and strategies outlined in "White Paper," the Ministry of Education carried out six action plans to further the promotion of creative education. Accordingly, both the Creative Education Exposition and this publication, *Creative Education in Taiwan*, are direct products from these plans.

In other words, without the support of the Ministry of Education, "White Paper on Creative Education" would not have been written, and therefore the six action plans would not have been generated, and consequently the Creative Education Exposition would not have been occurred.

While the above paragraph may give the reader the impression that the promotion of Creative Education is a recent movement, in reality, the government and many universities had already conducted a variety of creative education activities for a period of at least forty years. However, prior to "White Paper on Creative Education," these events were individually arranged and no attempts to collectivize what these institutions had previously accomplished had been made. Hence, the motivation behind this publication arose from the need to identify previous events, plans, projects, and etc. and to consolidate such efforts into a single reference guide.

#### Methodology

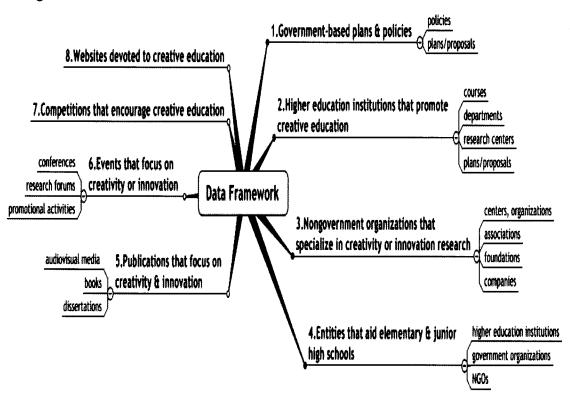
The following four methods were used to collect data for this book.

- 1. The internet
- 2. Literature and research publications on creative education

- 3. Email, telephone, and letters were used to obtain information from research centers, incubation centers, academic associations, scholars, and researchers that promote creative education.
- 4. Newspaper and magazine articles, television and other types of media reports. Furthermore, additional detailed information on the contents of each report were gathered and compiled as part of the report.

#### The Framework of this Publication:

The collected data was arranged and organized according to following eight categories:



#### The Purpose of this Publication

"Creative Education in Taiwan" hopes to attain the following goals:

- 1. Encourage both domestic and international participation in creative education work. Provide information to researchers/workers in the field of creative education as well as increase awareness among the general public about Taiwan's promotional work on creative education.
- 2. Make the information and research obtained from organizations, competitions, courses, publications, websites, books, research articles, and theses more accessible and comprehensible to the general public.

#### Preface

- workers, students, parents, and the general public to with plans, organizations and human resources that they can identify with and thereby enlighten and encourage interested people to learn more about creative education.
- 5. Establish links between domestic and international specialists and organizations, fostering an exchange of information.

### Part 1:

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#### 1946 Constitution of the R.O.C., Article 166

The State shall encourage scientific discoveries and inventions, and shall protect ancient sites and articles of historical, cultural or artistic value.

http://www.president.gov.tw/1 roc intro/e law roc.html

### 1983- Department of Education, Taipei City "Taipei City Creative Thinking Education Research Forum," "Creativity Guidance Group"

The research forum was the first formal attempt by the government to foster discussion on creative education in Taiwan. Proceeding the conference, a \*guidance group was created to continue promoting and engendering greater awareness on creative education around the country.

#### 1998 Ministry of Education, Toward a Learning Society

While the objective of this white paper is to allow everyone to have the opportunity to learn and to fulfill the obligation of learning, the goals, approaches, and action programs listed are just a starting point. Clearly, it requires a long time and a great amount of effort to accomplish these targets. We need to continue to work together with both enthusiasm and commitment. Only then will learning become an essential element of our culture. As we enter the 21<sup>st</sup> century and continue to transform into a developed country, this is the fundamental source of energy for not only improving the individual but also the society as well.

http://lifelong.edu.tw/page1/yeh/engreport.html

# 1998 Science and Education Department, National Science Council, "Science Education and Technological Creative Education Research Proposal"

The proposal focuses on elementary to middle school science education challenges, international trends in science education, and additionally addresses the future needs of domestic technological education.

1999 The Committee on Education Reform of Executive Yuan, *Basic Education Act*Education goals include the following: cultivating knowledge of civil education, democracy, and the legal system, and strengthening critical and creative thinking skills.

### 1999 National Science Council and Ministry of Education, *Program for the Promotion of Academic Excellence of Universities*

In order to increase the standards of higher education, the program aims to help universities improve their academics, assist each higher education institution to develop

a clearer vision, and to compile available resources into a centralized, user-friendly system.

#### 2000 Grade 1-9 Curriculum Guidelines

The outline aims to help students cultivate what has been deemed as the "10 basic abilities." These include: understanding oneself and developing one's potential, how to appreciate, perform and innovate, career planning and lifelong learning, ability to express, communicate, and share, respect, care and teamwork skills, cultural learning and international understanding, ability to plan, organize, and implement, ability to utilize technology and information, take initiative to inquire and research, independent thinking and problem-solving skills.

#### 2000 Ministry of Education, "White Paper on Higher Education"

Higher education has played a major role in our nation's modernization, not only in the nurturing of specialized personnel to pursue various aspects of national reconstruction, to lead academic research and development in science and technology, but also to play a role in the shifting social values, to build good models and promote various types of social and psychological reconstruction. In particular, higher education institutions should be able to do much in promoting democracy and political stability, to help in economic development, in social interchange that leads to cultural renewal and progress. For this reason, how to enable continued development in higher education, and to provide a good environment for such development in order to hasten our nation's modernization, is truly a most important task in the future development of higher education.

http://www.high.edu.tw/white\_paper/indexe.htm

### 2000 Ministry of Education, "Proposal for Strengthening Innovation and Learning Skills"

With respect to the knowledge economy, in order to improve the people's creativity level, the proposal aims to assist schools on all education levels to incorporate creative education into their teaching methodology before the year 2010.

# 2001 Ministry of Education and various cultural education foundations formed an alliance to promote creative education

The Ministry of Education and various cultural education foundations jointly worked together to develop a series of activities and events to promote creative education. A total of twenty-one organizations, companies and foundations were invited to participate in a collective effort to achieve the stipulated goals.

#### 2001 National Science Council and the Ministry of Education, Goal-Oriented

#### **Project**

In efforts to integrate the entire country's research resources and additionally encourage more applied research in the field of education, the National Science Council collaborated with the Ministry of Education to target important questions in the area of science education.

#### 2001 Ministry of Economic Affairs, Incubation Center

The Center aims to serve as an information resource for small to middle-size businesses, college students, and the general public by providing various counseling services.

#### 2002 Ministry of Education, "White Paper on Creative Education"

For the project, creative education programs were observed and studied at the elementary, junior high, senior high, and university levels, both in Taiwan and abroad. To achieve the vision of a "Republic of Creativity," the following goals are being implemented:

- To cultivate lifelong learning and to have the courage to create a lifelong learning attitude.
- To provide an educational environment in which individual differences are treasured and that contributes to a diverse and dynamic learning atmosphere.
- To accumulate rich knowledge resources and make them easily accessible to the public.
- To develop an industrial climate in which knowledge is created and disseminated while also respecting and protecting intellectual property.
- To shape a creative culture in which innovation is abundant and diverse and in which knowledge is actively exchanged.

#### 2002 Advisory Office of the Ministry of Education, Six Action Plans

To build on the results from the "White Paper on Creative Education" research project, the six actions plans aims to actualize the following three goals:

- 1) Study best practices in efforts to create better experiences and ultimately strengthen learning results.
- 2) Invigorate and advance current knowledge through innovation, transformation, application and added value.
- Advance international exchange and collaboration.

#### 2003 Industrial Technology Research Institute, "Creativity Lab"

The Creativity Lab seeks to encourage innovation through using an interdisciplinary approach in the development of technology. The Lab also aims to foster an environment that nurtures creativity and innovation.

#### 2002 National Science Council, Executive Yuan

In the year 2002, the Commission of Policy designed several plans to further science and technology education. The below three programs are a few examples of what ensued from the proposals that were created.

#### National Science and Technology Program for e-Learning

The e-Learning program is to create an environment advantageous for the close cooperation among the government, industry and the academia and facilitate e-Learning in three dimensions: social, industry, and research. It is hoped that through this integral program among government, industry, academia, it can bring forth the felicity of learning to the public.

http://elnpweb.ncu.edu.tw/english/english1.htm

#### National Digital Archives Program

The program is unique in that it places equal stress on both the humanities and technology. The ultimate purpose is to develop a digital archive resource, thereby aiding the development of Taiwan's culture, society, business and economy. http://www.ndap.org.tw/index\_en.php

#### E-Learning Industry Promotion and Development

Project Objectives: In order to realize the tasks in the National E-Learning Technology Project, the Project of Promoting and Developing E-Learning Industries is expected to complete three major tasks in five years. These tasks include constructing a network science park, constructing industrial learning networks, and enhancing international competitiveness of e-learning industries. Thus, the construction of e-learning environment and the development of e-learning industries will be actualized. 

http://www.elearn.org.tw/eLearn/en/About%20Project/

## 2003 Department of Higher Education of the Ministry of Education, *Talent Development Project: Science and Technology, Arts and Design*

In response to the need to develop a creative industry, by using the available resources at universities and colleges, the program aims to build an environment conducive for students to developing their creativity.

#### 2004 Ministry of Education, Creative Education Exposition

As we are now in the knowledge economic era, creativity inevitably plays a vital role in a country's competitive advantage. Creativity has additionally received more public attention than ever before and is steadily becoming a prominent issue in Taiwan. All divisions of the Ministry of Education have been making efforts to facilitate plans that

**Part 1:** What policies or plans that emphasizes or promotes creativity (or creative education) has the government proposed/implemented?

encourage creativity in order to cultivate creative talent among campuses and society. Furthermore, the Consulting Division in the Ministry of Education implements middle range plans for the creativity education in Taiwan. To promote the work that the Ministry of Education has accomplished in the field of creativity education and persuade all citizens to become involved in this national endeavor, the Consulting Division in the Ministry of Education launched an activity entitled the "Creative Education Exposition, 2004" in early 2003. There are four elemental concepts, seven well-defined goals, and nine feasible executive programs that demonstrate the creativeness and uniqueness of this proposal.

http://www.creativity.edu.tw/english/news/2004expo.htm

### Part 2:

What courses, departments, research centers or other plans for implementation that cultivate creative education have higher education institutions already established?

- **Part 2:** What courses, departments, research centers or other plans for implementation that cultivate creative education have higher education institutions already established?
- 1988 **Taipei Municipal Teachers College,** *Creative Thinking Education Center* Established in 1988. Whose mission includes the following:
  - (1) Collect related books, periodicals, research reports, and literature on creative thinking education.
  - (2) Conduct research on creative thinking education.
  - (3) Organize creative thinking education related forums
  - (4) Publish creative thinking education related books
  - (5) Edit creative thinking education related testing materials
  - (6) Organize creative thinking education related events, exhibits and visits
  - (7) Participate in academic exchange on creative thinking related topics with foreign and domestic institutions
  - (8) Provide counseling on gifted and creative thinking education http://www.tmtc.edu.tw/~creative/
- 2003 Taipei Municipal Teachers College, Department of Special Education, Creative Thinking and Gifted Education, Masters Program
- 2003 National Taiwan Normal University, Creative Development, Masters Program
  The College of Education at National Taiwan Normal University, in cooperation with
  the Extension Division for In-service and Continuing Education is currently offering a
  Masters degree program in Creativity Development. As part of the program, the College invites many "Masters of Creativity" from within and outside the university to share
  their expertise and input as a means of further enriching the course curriculum. The
  purpose of this program is to nourish and improve people's creativity with the hope of
  embedding creativity into a variety of occupations so as to promote our country's competitiveness and productivity.

National Taipei Teachers College, Graduate School of Toy & Game Design

Lunghwa University of Science and Technology, *Multimedia and Game Technology* 

1984 National Taipei University of Technology, Department of Industrial Design & Graduate Institute of Innovation and Design

Aletheia University, College of Knowledge Economy, Department of Innova-

#### tive Management

# 2003 Advisory Office of the Ministry of Education, "Creative education planning and implementation" Course

At its inception, a consortium of 19 higher education institutions simultaneously began to offer "generation and implementation of creative ideas" related courses. By 2005, a total of 60 universities and colleges had participated in the project. The proposal aimed to provide semester year-length instruction on developing creativity skills. During the first semester, the courses center on how to develop creativity and how to apply creativity in a variety of situations. Accordingly, for the final exam, students were divided into groups and worked together on a creative project; all groups participate in the local competition and the winners then in national competition.

2000 Advisory Office of the Ministry of Education, *Ongoing Consolidation of Creativity Cultivation* 

Advisory Office of the Ministry of Education, Comprehensive Management for Creative Schools

2002 Department of Mechanical Engineering, Yuan Ze University, Cultivation of Interdisciplinary Innovative Skills Program

School of Business, Soochow University, *Proposal for Building a Creative Foundation for the Knowledge Economy* 

#### National Chengchi University, Center for Creativity and Innovation Studies

The Center for Creativity and Innovation at NCCU was founded in August 2003. Being that innovation and creativity are playing an increasingly important role in the age of knowledge economy and information technology, the Center was therefore established to provide an invigorating academic environment to encourage research in this field. The birth of the Center provides an unprecedented, large-scale research base in Taiwan in that it has significantly expanded the range and depth of research in innovation and creativity. To this end, the Center is dedicated to providing a wide range of research resources and exerting the influence of innovation and creativity on the society as a whole.

http://www.ccis.nccu.edu.tw/englishindex.asp

National Sun Yat-Sen University, Center for Creativity and Innovation Research

Far East College, The Creativity and Innovation Center

http://www.fec.edu.tw

#### National Taiwan Normal University, Science Education Center

The Science Education Center was established in 1974 with the support of the Ministry of Education. The main reasons for the establishment of this center are delineated in the following: conduct a variety of research projects which lead to the improvement of science and mathematics teaching and learning; the development and dissemination of secondary school mathematics and science curricula; the publication of the Science Education Monthly Journal and other publications related to science education; and the development of instructional materials including a variety of audio-visual media. http://www.sec.ntnu.edu.tw/English/English.htm

### National Cheng Kung University, *Technology and Innovation Management*Research Center

The Technology and Innovation Management (TIM) Research Center was established in 2000 under the supervision of the Researches and Services Headquarters of National Cheng-Kung University. The main purposes of the TIM Research Center are as follows.

- 1. Study the theoretical frameworks and evaluation methods of high-tech industry policies.
- 2. Provide consultation services for the development and evaluation of high-tech industry policies.
- 3. Develop specific business operation theories and techniques for high-tech firms.
- 4. Provide consultation services for the business operations of high-tech firms.
- 5. Study the theories and practices of the innovation management.
- 6. Help firms establish or improve the mechanisms of innovation management.
- 7. Work together with other incubator centers to help new venture development and management.
- 8. Increase the interaction of the theories and practices of innovation management domestically and internationally.
- 9. Hold conferences and publish papers and research reports on technology and innovation management.
- 10. Hold other activities related to technology and innovation management. http://www.ncku.edu.tw/~timc/english.htm

#### 1997 National Central University, Creative Learning Program

National Chiao Tung University, Digital Creation Industry Development Cen-

ter

http://www.dcidc.org.tw/

1990 National Huwei University of Science and Technology, Center for Creativity and Creative Design Education

http://140.130.18.222/pmeo/

2002 National Cheng Kung University, Creative Design Research Laboratory

Department of Chemical Engineering, National Tsing Hua University, Nano Technology and MEMS Center

National Taiwan Normal University, Cognitive and Science Education Research Laboratory

National Chengchi University, Research on Creativity Implementation process

2002 National Taipei Teachers College, Creativity and Critical Thinking Development Training for Teacher Continuing Education

Cheng Gung Institute of Technology, Plan for the Cultivation of Creative Thinking as a Foundation for Science: e.g. Creative Education and Knowledge Management Masters Program

National Chung Cheng University, Ching Jiang Center for Life-Long Learning

To commemorate Dr. Lin, Ching-Jiang for his contribution to Life-long Learning Education in Taiwan, the Ching Jiang Life-long Learning Center was founded with the approval of Ministry of Education to replace the Adult and Continuing Education Center at National Chung Cheng University in 2000. As life-long learning plays a crucial role in one's lifetime, the Ching Jiang Lifelong Learning Center strives to provide high quality educational services to its community and establish a cyber-learning environment in Taiwan. The mission of Ching Jiang Life-long Learning Center is to provide the following:

- \* Continue to strengthen academic research on life-long learning education.
- \* Establish databases for life-long learning to provide counseling service for the community and to set up a resource network of life-long learning education in the Yunlin-Chiayi-Tainan areas.
- \* Publish a series of books on life-long learning and bimonthly journal of Life-Long

**Part 2:** What courses, departments, research centers or other plans for implementation that cultivate creative education have higher education institutions already established?

Learning.

- \* Hold various courses and seminars, for professionals and the community.
- \* Provide life-long learning service to public and private sectors.
- \* Integrate resources from various public and private sectors in the Yunlin-Chiayi-Tainan areas and establish a partnership with them.
- \* Utilize new cyber-technology for life-long learning education all over Taiwan. http://lll.adm.ccu.edu.tw/~english/

#### **Intra-University Innovation Incubation Centers:**

The following are a few examples of university Innovation Incubation Centers.

#### - National Taiwan University: Innovation Incubation Center

The NTU Tjing-Ling Incubation Center was founded in January 1997, and was renamed as the NTU Innovation & Incubation Center (NTUIIC) in July, 1999. The Center focuses on two main areas: emerging engineering technologies and biotechnology. In January 2000, the Center cooperated with NTU Innovation & Incubation Co., Ltd (also known as NTUIIC) to provide tenant firms with more in-depth and overall services. Its vision is to promote innovation, value creation and entrepreneurship. In addition, the Center strives to accomplish the following:

- Construct an environment for "start-ups" and "innovation"
- Lower the risk of start-ups
- Improve enterprises' R&D capability
- Assist traditional enterprises to advance in technology
- Extend NTU R&D outcomes to commercialization

## - National Cheng Kung University: Innovation Incubation Center http://www.univenture.ncku.edu.tw/

### National PingTung Institute of Commerce: Innovation Incubation Center

http://www.incubat.npic.edu.tw/

#### 2005 National Taiwan Normal University, Institute of Creativity Development

The College of Education, National Taiwan Normal University, is now running a Masters degree program in Creativity Development, in cooperation with the Extension Division for In-service and Continuing Education. In particular, the College invites many "Masters of Creativity" from within and outside the university to have input into the courses. The purpose of this program is to nourish and improve people's creativity with the hope of embedding creativity into a variety of occupations so as to promote our country's competitiveness and productivity.

http://www.ntnu.edu.tw/ed

## The following centers also have Innovation Incubation centers. For more detailed information, please go to the following websites:

http://incub.cpc.org.tw/index.htm

http://incub.cpc.org.tw/aboutcenter/aboutcenter\_1.htm

#### **National Universities**

Kaohsiung Medical University

National Central University

National Changhua University of Education

National Cheng Kung University

National Chengchi University

National Chung Cheng University

National Chung Hsing University

National Chiao Tung University

National Dong Hwa University

National Sun Yat-Sen University

National Taitung University (Teachers College\*\*\*)

**National Taiwan University** 

National Taiwan Normal University

National Taiwan Ocean University

National Taiwan University of Arts

National Tsing Hua University

National University of Kaohsiung

National Yang Ming University

Shih Hsin University

#### **Private Universities**

Da-Yeh University
Feng Chia University
Fu Jen Catholic University
I-Shou University

Chang Gung University

**Part 2:** What courses, departments, research centers or other plans for implementation that cultivate creative education have higher education institutions already established?

Chinese Culture University
Chung Hua University
Chung Yuan Christian University
Ming Chuan University
Shih Chien University
Tamkang University
Yuan Ze University

#### **Universities of Science and Technology**

Chaoyang University of Technology

Kun Shan University

MingChi University of Technology

National Chin-Yi Institute of Technology

National Formosa University

Natonal Kaohsiung Marine University

National Kaohsiung University of Applied Sciences

National Pintung University of Science & Technology

National Yunlin University of Science & Technology

National Taiwan University of Science & Technology

National Kaohsiung First University of Science & Technology

National Taipei University of Technology

Shu-Te University

Southern Taiwan University of Technology

#### **Technological Colleges**

Dahan Institute of Technology

China Institute of Technology

Fo Guang College of Humanities and Social Sciences

Fortune Institute of Technology

Kao Yuan Institute of Technology

National Pingtung Institute of Commerce

Oriental Institute of Technology

Transworld Institute of Technology

Vanung University

Yung Ta Institute of Technology and Commerce

### Part 3:

Which non-government organizations specialize in creativity or innovation research and have founded specific organizations or held activities that promote creativity? Part 3: Which non-government organizations specialize in creativity or innovation research and have founded specific organizations or held activities that promote creativity?

**Part 3:** Which non-government organizations specialize in creativity or innovation research and have founded specific organizations or held activities that promote creativity?

There are many associations and NGOs whose mission is to promote creative education. The following list describes the organizations that were found during the research project.

#### 1950 Chinese Creativity Association

http://ccaweb.creativity.edu.tw

#### **Chinese Creativity Development Association**

This Association has developed many activities and has provided relevant information under its mission of developing individual and group creativity, promoting innovation on education, technology, and management, and enhancing the living quality of our citizens.

http://www.ccda.org.tw/

#### Society of Taiwan Mathematical Modeling & Creative Thinking

http://model.chiuchang.com.tw/model/

#### 1993 TECO Technology Foundation

TECO Technology Foundation, established in 1993, on the 38th anniversary of the TECO Group, is an independent, non-profit organization dedicated to educating young scientists and engineers, promoting vision-driven thinking and enhancing the social well-being of Taiwan. TECO Technology Foundation has therefore set a goal, in addition to recognizing scientific and social achievements, to provide quality creativity education & training programs to increase the creativity power of the people in Taiwan. www.tecofound.org.tw/index.htm

#### 1971 Hsin Yi Foundation

Hsin Yi Foundation was established by the Yuen Foong Yu Group in 1971 during a time when prosperity was not shared throughout Taiwan's society. Therefore the initial goals of the Foundation were aimed at helping the poor through granting scholarships. By the time the Institute of Early Childhood Education was founded under Hsin Yi Foundation in 1977, Taiwan was ready to take off on its economic boom. Although the rapidly changing environment of the mid-seventies was inevitably beginning to affect young children adversely, neither the government nor society was seriously aware of the situation. Hence, the aim of the Institute is to pioneer the work of early childhood education, and to promote a happy and healthy environment for children. We firmly believe that any cause that would help the development of

children and their well-being deserves our full effort. Over the past twenty years the Institute has continued to grow according to the changing needs of the society. "Safeguarding the children's only childhood" is always the motto of the Institute. Objectives:

- \* To alert the general public, especially the parents, of the importance of early childhood education.
- \* To provide a supporting system for parents and teachers of young children as well as students and researchers of early childhood education.
- \* To promote the child-centered philosophy of education and advocate the society to safeguard our children's childhood.
- \* To enhance research and development in order to accumulate local professional experiences and applications.

http://www.hsin-yi.org.tw/default

#### 1994 Yuan T. Lee Foundation Science Education For All

http://www.ytlee.org.tw

#### 1997 Ancient Chinese Machinery Cultural Foundation

http://140.116.71.92/acmcf/

#### 1996 HappyNet

http://www.happynet.org.tw

#### 1998 Chinese Association of Gifted Education

http://www.ntnu.edu.tw/spe/cage

#### **Industrial Bank of Taiwan Education Foundation**

IBT Education Foundation has placed heavy emphasis on "Learning, Innovation, and Technology" in its effort to develop new generation entrepreneurs and technology talents. By capitalizing on the bank's financial prowess, integrating resources of private and public sectors, the Foundation hopes to build Taiwan into a technology island in the near future. The Foundation also hopes to provide an open playground for the younger generation, where we encourage them to develop independent thinking, be as creative as possible, and pursue their dreams bravely. The Foundation regularly works with well-known academic organizations abroad to introduce to Taiwan successful projects, creative masterpieces, and emerging technology so as to further motivate our younger generation.

http://www.ibt.com.tw/fund.htm

#### 2001 Taiwan Invention Museum

http://www.e-tim.com.tw

Part 3: Which non-government organizations special	alize in creativity or innovation research a	na
have founded specific organizations or held	d activities that promote creativity?	

#### 1999 TPIA, Taiwan Prominent Inventor Association

http://www.inventor.org.tw

#### **Chinese Society of Inventions**

http://www.invention.com.tw

2003 **Microsoft Taiwan Corporation,** *Student Club* http://www.microsoft.com/taiwan/msdn/academic/studentclub/

**Paperwindmil Theater,** *Creativity Workshop for Children* www.paperwindmill.com. tw/paperkid/index.htm

**Taichung YMCA School of Invention** 

#### **Taipei YWCA Women's School of Creativity**

2003 Intel, Teach to the Future

http://itf.ice.ntnu.edu.tw

#### 2003 Republic of Creativity

http://www.innovation.org.tw

**Intel Innovation Center** 

#### Foundation for Chinese Web Culture & Education

http://www.theweb.org.tw

ADHNTECH Foundation, TIC100 Technology Innovation Center

http://www.tic100.ort.tw/tic100/

National Association of Small and Medium Enterprise, Republic of China http://www.geocities.com/Tokyo/Gulf/9637/nasmeroc.html

2000 Hewlett-Packard Development Company, L.P., 2000 Technology in Education

### 2003 Lite on Group, Business Vitality and Innovation Management Experiential Camp

http://www.eliteon.com/brief/eliteon.htm

Asir International Management Consulting INC., Proposal for the Promotion of Creativity and Excellence Development Campaign

http://www.asirwant.com.tw/default.asp

#### 2003 NCTU Digital Creation Industry Development Center

http://www.dcidc.org.tw

#### **Creative Educational Company**

The Creative Educational Company is a creative education-oriented company dedicated to the promotion of various education-related services including Training, Publishing, e-learning Design & Development, Overseas Internship Program, Translation, Study of Japanese Language and Culture in Japan, as well as Printing. The Center's missions are to:

(1) help promote English Learning in accordance with our director's educational

vision - "Fun Education for ALL" by providing quality teaching and learning materials.

(2) Help encourage Lifelong Learning through cooperating with non-profit making organizations or centers.

http://www.creativedu.com//eng/intro.asp

#### **Sustainable Taiwan Cultural Foundation**

The "Sustainable Taiwan Cultural Foundation" (STCF) uses the location "Tainan" as a starting point. In other words, while the Foundation is based in Tainan, it eventually hopes to expand out to include the whole Asia-Pacific region. The Foundation believes that it is the duty of citizens of an interconnected global community to take part in the globalization of public business.

The Foundation's initial missions are:

- 1. Push the concept of "Sustaining efforts for Taiwan".
- 2. Unite youth in the Asian Pacific area.
- 3. Join in international discussions.
- 4. Promote Taiwan's culture around the world.
- 5. Expand and develop non-profit and non-government organizations. http://taiwan-ngo.24cc.com/

## 2003 Foundation for Education's Annual Conference, *Innovative Learning—Challenging the Future*

http://train.eshare.org.tw

#### 1999 AAEON, Cultural and Educational Foundation

http://fund.aaeon.com.tw

#### 1994 Foundation for the Advancement of Outstanding Scholarship

Dr. Yuan-Tseh Lee, President of Academia Sinica and Nobel Laureate appealed to the business community and the society at large to set up this Foundation. The goal is to raise NT \$ I billion as the Foundation's endowment. The Foundation seeks to secure adequate financial sources to help attract more prominent scholars and experts from abroad to serve in Taiwan and to reward prominent academics and researchers who have devoted themselves to the advancement of this nation's achievements.

With the aforementioned firm conviction, the Foundation for the Advancement of Outstanding Scholarship (FAOS) as a cultural and educational foundation in nature, aims to enhance this nation's educational, high-tech, scientific and socio-cultural development.

http://www.faos.org.tw

#### The Humanistic Education Foundation

The Humanistic Education Foundation is a private, non-profit organization

**Part 3:** Which non-government organizations specialize in creativity or innovation research and have founded specific organizations or held activities that promote creativity?

dedicated to the development of human-centered education in Taiwan. The foundation identifies problems in contemporary education, promotes alternative educational ideas, and helps create a social and political forum to discuss the purpose and means of education. The Humanistic Education Foundation promotes awareness of human-based education through a number of venues. The Foundation publishes the *Humanistic Education Journal*, provides a resource center, holds conferences, and is highly active in promoting both educational reform and humanistic education. http://hef.yam.org.tw/index\_english.htm

### Part 4:

Which government, higher education institutions, and non-government organizations have proposed plans that specifically aid elementary and junior high schools in developing creativity? What types of plans have these organizations formulated?

**Part 4**: Which government, higher education institutions, and non-government organizations have proposed plans that specifically aid elementary and junior high schools in developing creativity? What types of plans have these organizations formulated?

#### Government:

### **Creative Education Initial Action Programs, Nurturing Trips for Creative Learners**

This program intends to inspire and encourage students to participate in creative learning, to engage in life exploration, and to enhance problem-solving capabilities in all its various aspects, especially for students who are underachievers, school dropouts, and those who are culturally disadvantaged. We hope these students will take initiative in developing creative ideas and actions plans to realize their full creative potential. We expect that as students learn new ways to think and to see the world around them, they will develop an "intrinsic motivation" for learning, anxious to experience creative processes and to see the outcome of their creative work. To achieve these goals, the Ministry of Education will provide the following resources for students:

- 1. Establish creative clubs and organizations at schools and elsewhere where students can explore their multiple talents
- 2. Design creative on-campus spaces for students to display their creative works.
- 3. Hold national exhibitions on various themes and select outstanding works for display.
- 4. Provide scholarships with financial supplements from local communities for the purpose of cultivating more creative learners.
- 5. Hold creative life experience camps for students to get out of the classroom and experience the joy of nature and to develop an appreciation for life in general.
- 6. Provide special assistance to low and underachievers, school dropouts, and those who are culturally disadvantaged to help them develop their creative potential.

### **Creative Education Initial Action Programs, Professional Development for Creative Teachers**

This program is designed to assist teachers in mobilizing and cultivating their creative potential. The program helps to facilitate this in all phases of professional development, from pre-service teacher education to in-service professional development. The program additionally strives to encourage teachers to become active learners who are willing to engage in innovative teaching and active researchers who apply new teaching methodologies in their classrooms. Lastly, the program was developed to cultivate teachers that will help their students to achieve and to be

**Part 4:** Which government, higher education institutions, and non-government organizations have proposed plans that specifically aid elementary and junior high schools in developing creativity? What types of plans have these organizations formulated?

creative.

The Ministry of Education will provide the following resources to encourage teachers:

- 1. Support schoolteachers to plan school-based professional development, to engage in action research, and to experiment with innovative teaching.
- Select teacher leaders with creative capabilities and form creative teaching teams for disseminating ideas.
- 3. Provide workshops for teachers' professional development and enhance opportunities for exchanging ideas.
- 4. Design a creative teaching gallery for demonstrating creative teaching methods and for displaying teaching materials and teaching aids; competitions like Disney's Great Teacher Award should be held annually to honor the most creative teachers or teaching teams.
- 5. Establish a creativity-oriented system for teacher recruitment, promotion, and evaluation.

#### **Compulsory Education Advisory Group of the Taichung City**

http://140.128.55.25/user197/92\_page/guide\_tc\_body.asp

#### Parents Association in Taipei, Innovation Education Camp

http://www.pat.org.tw/

### National Taichung Library, *Taipei International Book Exhibition: A hundred People Creative Reading Showca*se

In accordance with the Taipei International Book Exhibition, the showcase promoted reading by encouraging parents to take a more active role in their children's learning process, thereby strengthening parent-children relationships and creating a more literate society.

http://www.ntl.gov.tw/

#### **Kaohsiung Municipal Bureau of Education**

In order to promote science education, Kaohsiung Municipal Bureau of Education holds a number of creativity competitions and camps. For example, the "Elementary and Middle School Creative Science Education Challenge" had 120 students participate by challenging their critical thinking skills and encouraging them to apply creative strategies in resolving science questions.

http://wwwedu.kh.edu.tw/english/index.htm

Higher Education Institutions:

### National Taiwan Normal University, Science Education Center, *Creative Science Education Event*

http://www.ntnu.edu.tw/

### National Taiwan Normal University, Science Education Center, *Plan for the Advancement of High School Foundational Scientific Talent*

The plan's purpose is to encourage high school students to develop critical thinking and creativity skills, to strengthen foundational scientific knowledge, and to cultivate their research and learning potential.

http://140.122.147.172/cultivation/cultivation.htm

### National Taiwan Normal University, Science Education Center, Creativity Camp for Elementary and Middle School Science Education Educators

The camp introduced elementary and middle school natural science educators to alternative methods of teaching—that is to learn how to incorporate the use of creative methodology and hence engender a more simulating learning environment within the classroom.

http://www.ntnu.edu.tw/

### National Taiwan Normal University, Graduate Institute of Science Education, Science Education Graduate Program

http://www.ntnu.edu.tw/gise

Fu Jen Catholic University, 2001 Teacher Training Program: "Creative Thinking Education Workshop"

http://www.cte.fju.edu.tw

### National Sun Yat-Sen University, Department of Management, *Creativity and Innovation Teacher Training Program*

http://www.cm.nsysu.edu.tw

#### Chinese Culture University, Continuing Education Center

Chinese Culture University's Continuing Education Center is committed to provide educational and learning opportunities through high quality teaching and service. Our aim is to provide individuals with a stimulating learning environment that encourages the exchange of ideas and builds strong and cooperative networks amongst individuals from diverse educational, cultural and professional backgrounds. The Center both draws upon and contributes to the cultural wealth of the community in which it resides.

http://www.sce.pccu.edu.tw/newsce/en

### National Taipei Teachers College, Creative Education Teacher Training Development Conference

http://s10.ntptc.edu.tw

Non-Government Organizations:

### Chinese Creativity Development Association, Summer Able Camp-A Creative Thinking Camp

The Summer/Winter Camp was designed to cultivate students' thinking skills. The Camp hoped to tap into participants' creative potential through various extracurricular activities that fosters new approaches of thinking.

http://www.ccda.org.tw./essence/Able%20Camp.htm

### Chinese Creativity Development Association, Power Tech Creative Camp Objectives

In the 21st century, a time when technology and creativity dominate, it is important to cultivate high-tech talents for the next two decades, and the best way to achieve this is through stimulating students' interest in creation, tapping into their creative potential, and boosting their ability in carrying out creative ideas. All this will help broaden students' scope of knowledge and foster a flexible mind and independent thinking capability. To help students of different age groups to develop abilities in planning, implementation, innovation, and independent thinking, the Camp arranged various training sessions and contests to stimulate students' creativity and team spirit. Students had to plan and produce their own project by applying their prior knowledge to solving problems, either independently or as a team in order to complete their project. Throughout the process, students' perseverance and determination was constantly tested.

http://www.ccda.org.tw/essence/power%20tech.htm

### Yuan T. Lee Foundation Science Education for All, Y.T. Mathematics Discovery Trip; Y.T. Workshop for Science Teacher Professional Development. http://www.ytlee.org.tw/

### Yuan T. Lee Foundation Science Education for All, Y.T. Children Science Story Camp

The purpose of the camp was threefold:

- 1) Help students to cultivate a holistic perspective toward literature and science.
- 2) Provide more hands-on opportunities for students, thereby allowing them to

Part 4: Which government, higher education institutions, and non-government organizations have proposed plans that specifically aid elementary and junior high schools in developing creativity? What types of plans have these organizations formulated?

experience the joy and excitement of exploration.

3) Guide and teach students accurate scientific concepts.

The camp integrated literature and natural science together to create a hands-on learning activity. Students were exposed to listening, reading, speaking, and writing exercises through interesting and fun stories. The children were then taught natural science lessons through playing and analyzing children toys. In this way, the children could simultaneously develop their language skills and learn about natural science in an enjoyable and relaxed manner.

http://www.ytlee.org.tw/view/sci\_story/index.htm

#### TECO Technology Foundation, Creative Education Camp

http://www.tecofound.org.tw

### 2000 Hewlett-Packard Development Company, L.P., *Technology in Education*, **2000**

http://hp.ck.jhs.tyc.edu.tw/hp99/Default.htm

#### Intel, Intel Teach to the Future

http://itf.ice.ntnu.edu.tw/index.html

# 2003 Macronix Education Foundation, Yuan Liou, Scientific American Magazine, Technological *Creation Youth Camp, 2003*

http://www.ylib.com/activity/satcourse/default.htm

# Taiwan Creativity Development Association, *Technological Creativity Workshop for Junior High and Elementary school teachers*

http://www.ccda.org.tw/creative1/413.htm

#### Innovative Teaching Wired Up

http://www.krjh.tcc.edu.tw/teboard1\_3/view.asp?ID=751

#### **Creative Teaching Workshop**

#### **Creative and Digital teaching Material**

http://fund.aaeon.com.tw/eschool/index.asp?page=eschool\_plan

# Nokia, "Creativity Makes a Connection" citizenship Program—An Experimental Creativity Teaching Project

Nokia cooperated with NTNU to launch CQ development: Nokia "Creativity Makes a Connection" citizenship program—An Experimental Creativity-teaching Project

Part 4: Which government, higher education institutions, and non-government organizations have proposed plans that specifically aid elementary and junior high schools in developing creativity? What types of plans have these organizations formulated?

Technology. Nokia Taiwan Co., Ltd. announced a three-year Nokia "Creativity Makes a Connection" citizenship program, which combines the strengths of the telecommunication and education sectors to create a learning paradise where creativity abounds for junior high school teachers and students. The "Experimental Creativity-teaching Program" is based on a three-year cooperation with NTNU. During the first year, the program will be implemented in two junior highs where the teacher teams will carry out the R&D of the "Experimental Creativity-teaching Module" via workshops, seminars and symposiums. The second year will see the experimental teaching carried out with all second-graders in both schools with the results presented at the end of the semester. It is expected that the program will be introduced at all the junior-highs in Taipei.

http://www.ntnu.edu.tw/ed/nokiacg/nokiacg.htm

#### **Redtrees Education Consultant**

http://www.redtrees.com.hk/

Taiwan Creativity Development Association, "Elementary Schools: Free Creativity" Seminar

http://www.ccda.org.tw/ch.htm

Taiwan Creativity Development Association, A Journey into Japanese Technological Culture

### Part 5:

What audiovisual materials or publications (e. g. Masters Thesis, books, or related research) on creativity or innovation are available?

**Part 5:** What audiovisual materials or publications (e.g. Masters Thesis, books, or related research) on creativity or innovation are available?

The following are statistics for the number of theses, books, and articles on Creative Education published per year from 1972-2003.

Theses	Number
Master Theses	
Educational	
2001-2003	83
1996-2000	29
1991-1995	12
1986-1990	16
1981-1985	9
1971-1980	3
Total	152
Non-Educational	
2001-2003	54
1996-2000	46
1991-1995	50
1986-1990	26
1981-1985	5
1971-1980	6
Total	187
Grand Total	339
PhD Theses	
Educational	
2001-2003	4
1996-2000	3
1991-1995	2
1980-1990	1
Total	10
Non-Educational	
2001-2003	9
1996-2000	12
1991-1995	2
1986-1990	3
1981-1985	1
Total	27
Grand Total	37

**Part 5:** What audiovisual materials or publications (e.g. Masters Thesis, books, or related research) on creativity or innovation are available?

Publications	Number
Books that have "Create", "Creativity", or	"Creative Thinking" as part of the title
Educational	
Translated Publications	
2001-2003	23
1996-2000	26
1991-1995	32
1986-1990	3
1980-1985	1
Total	85
Original Publications	
2001-2003	10
1996-2000	11
1991-1995	26
1986-1990	7
1965-1985	3
Total	57
Edited Publications	
2001-2003	8
1996-2000	10
1991-1995	9
1986-1990	7
1970-1985	1
Total	35
Publications that have "Novelty", "Novel	Thinking" as part of the title
Translated Publications	
2001-2003	14
1996-2000	15
1991-1995	2
Total	31
Original Publications	
2001-2003	18
Total	18
Edited Publications and Anthologies	
2001-2003	5
1996-2000	11
Total	16
Publications that have "Innovation" as p	art of the title
Translated Publications	0
Original Publications	

2001-2003	4		
1996-2000	7		
Total	11		
Edited Publications and Anthologies			
2001-2003	8		
1996-2000	19		
Total	27		
Books that do not include "Novelty, Creativity, or Innovation" as part of the title, but con-			
tains content that relates to Creativity			
2001-2003	12		
1996-2000	14		
1991-1995	12		
1986-1990	1		
1975-1985	4		
Total	43		
Non-Educational			
Create, Creativity, Creative Thinking			
Translated Publications			
2001-2003	11		
1996-2000	15		
1991-1995	5		
1986-1990	1		
Total	32		
Original Publications			
1996-2000	1		
Novelty			
Translated Publications			
2001-2003	31		
1996-2000	45		
1991-1995	10		
Total	86		
Original Publications			
2001-2003	39		
1996-2000	2		
Total	41		
Edited Publications			
2001-2003	7		
1996-2000	1		
Total	8		
Innovation			

**Part 5:** What audiovisual materials or publications (e.g. Masters Thesis, books, or related research) on creativity or innovation are available?

Translated Publications	
2001-2003	15
1996-2000	18
1980-1995	3
Total	36
Original Publications	
2001-2003	30
1996-2000	14
1991-1995	1
Total	45
Edited Publications	
2001-2003	6
1996-2000	7
1991-1995	1
Total	14
Research Articles	
Educational	
2001-2003	84
1996-2000	52
1991-1995	27
1986-1990	5
1975-1985	3
Total	171
Non-Educational	
2001-2003	78
1996-2000	47
1991-1995	14
Total	139

#### **Key Word: Creativity**

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nal of Computer Assisted Learning, 18, 157-165.

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Chien-Hsing, W. (2002). SODPM: A sequence-oriented decision process model for unstructured group decision problems. *Behaviour & Information Technology*, 21, 59-69.

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**Part 5**: What audiovisual materials or publications (e.g. Masters Thesis, books, or related research) on creativity or innovation are available?

Dosamantes-Beaudry, I. (1999). Divergent cultural self construals: Implications for the practice of dance/movement therapy. *Arts in Psychotherapy, 26, 225-231* 

Appleyard, M. M., & Kaslow, G. A. (1999). Knowledge diffusion in the semiconductor industry. *Journal of Knowledge Management*, *3*, 288-295.

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#### **Key Word: Innovation**

Chien-Hsing, W. (2002). SODPM: A sequence-oriented decision process model for unstructured group decision problems. *Behaviour & Information Technology, 21, 59-69.* 

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parative study among university students in Beijing, Guangzhou, Hong Kong, and Taipei. *Acta Psychologica Sinica*. 33, 148-154.

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Paschal, B. J., & Kuo, Y. (1973). Anxiety and self-concept among American and Chinese college students. *College Student Journal, Vol. 7, 7-13.* 

### Part 6:

What conferences, research forums, or largescale promotional activities that focused on creativity or innovation has Taiwan held? **Part 6:** What conferences, research forums, or large-scale promotional activities that focused on creativity or innovation has Taiwan held?

National Central University, Graduate Institute of Learning & Instruction, and the Chinese Psychological Society, *Creative Thinking Education: Strategy and Application Conference* 

National Taiwan Normal University and the Taiwan Creativity Development Association, 2003 Chinese Creative Education Conference http://www.ccd.org.tw/cctcs.aspx

National Kaohsiung Normal University, "New Century Elementary and Middle School Education Reform and Innovation Education" Research Forum

http://www.nknu.edu.tw/~edu/new-eduweb/08Learning/learning%20thesis/learning%20thesis-4/item4-article1.htm

National Taiwan University, Center for Teacher Education, "Grade 1-9 Curriculum: Advancement and Development of Science Education" Conference

http://www.education.ntu.edu.tw/

National Taiwan University of Arts, Teacher Training Center, "Creative Education: The Arts and Humanities" Conference

National Teachers' Association, International Conference on Research and Practice of Innovative and Teaching and Learning

http://hkfew.hkedcity.net/html event/seminar/17May02/e008c.htm

Graduate Institute of Science Education, National Taiwan Normal University and the National Science Council, "Creative Thinking Education" Conference

http://www.ntu.edu.tw/gise/journal/1/acad-creative.htm

Taiwan Reading Association, Reading is the Key to Creativity & Critical Thinking

http://home.educities.edu.tw/twra/leadership/leadership.htm

2005 Department of Education, Center for Creativity and Innovation Studies, Education and Innovation, National Chengchi University, "Learning and

Creativity. Education and Innovation" International Conference

http://www.seg.nccu.edu.tw/friend/page1/page1 2 5.htm

Graduate Institute of Science Education, National Taiwan Normal University, "Creativity, Intelligence, and Thinking" Conference

www.ntnu.edu.tw/gise/journal/2/announce.htm

National Taipei Teachers College, International Conference on the Development of Creativity Curriculum

College of Education & Communication, Tzu Chi University, "Creative Education and Academic Research" Conference

- 2004 Science Education Department, National Science Council, "2004 Creativity Planning: A Cross-Disciplinary Exchange" Conference http://party.creativity.edu.tw/activities\_2/2.htm
- 2004 Advisory Office of the Ministry of Education "2004 Creativity Cultivation in Business" Conference

  http://cnet.creativity.edu.tw/3rdyear/92conference/online/html/index.htm
- 2004 Advisory Office of the Ministry of Education "2004 Creative Cultivation and Architecture" Conference

Chinese Creativity Association and the TECO Technology Foundation, "Navigating Creativity: The 2008 Challenge" Conference

National Taiwan University and the TECO Technology Foundation, "Creativity and Engineering Education" Conference

http://www.eng.ntu.edu.tw/eng/action/020926/020926

Chinese Culture University "E-Learning and Improving National Competitiveness" Conference

http://www.sce.pccu.edu.tw/TEMP/ELC/

2002 National Science Council, National Taiwan Normal University, and the Taiwan Creativity Development, International Conference on Technological Creativity Development

National Chengchi University, Center for Creativity and Innovation Studies, "Research on Creativity Implementation Process" Conference

http://www.ccis.nccu.edu.tw/index.html

College of Commerce EMBA, National Chengchi University, "Society, Enterprise, and Innovation" Conference

http://www.npo.org.tw/Bulletin/layout.asp?ActID=2981

2003 National Science Council, "2003 Strengthening Digital Creativity" Conference

http://aps.csie.ntu.edu.tw/plan\_market\_addvalue\_conference.html

- 2003 Graduate Institute of Intellectual Property, "Cross-Strait Conference on Technological Innovation and Intellectual Property Commercialization" http://howard-hotels.com.tw/hotel\_je/je\_traffic.asp
- 2003 Department of Management Information System, National Chengchi
  University, International Conference on Innovation Information Technology
  Policy and E-Society

http://www.itpes.nccu.edu.tw

Center for Creativity and Innovation Research, Institute of Communication Management, National Sun Yat-Sen University, *Creativity E-Newsletter Editing Camp* 

http://www.icm.nsysu.edu.tw/camp/p/content.php

Advisory Office of the Ministry of Education and Ta Hwa Institute of Technology, *Glass Innovation Camp* 

http://140.126.107.5/creativity/Index.aspx

Advisory Office of the Ministry of Education, Digital Content Institute (Industrial Development Bureau, Ministry of Economic Affairs and Institute for Information Industry), Graduate Institute of Technology and Innovation Management (National Chengchi University), Digital Content Camp http://tim.nccu.edu.tw/iva/Camp/index.htm

Advisory Office of the Ministry of Education, Center for Media Arts, Tainan National University of The Arts, *The Image of Creativity and the Humanities Program* 

http://cnet.creativity.edu.tw/po/tnca/html

### 2003 Advisory Office of the Ministry of Education, Creative Education Planning and Implementation course

http://tour.creativity.edu.tw/about/index.htm

## Science Education Center, National Taiwan Normal University, *Middle School Science Education and Creativity Event*

http://www.sec.ntnu.edu.tw/present/creative/92junior.htm

### Taipei Fine Arts Museum, Play with Art, 2003 International Symposium on Art Museum Education

http://enews.tp.edu.tw/News/News.asp?iPage=3&UnitId=99&NewsId=7252

# The Humanistic Education Foundation, *Grade 1-9 Curriculum and Innovative Education Program*

http://class.eje.isst.edu.tw/files/

#### Chinese Association, Creative Thinking Camp

http://140.118.199.154/robot7.nsf/\_42apt04lbsg9apooimbfh5g77\_?OpenForm

## 2003 Macronix Education Foundation and Yuan Liou Scientific American Magazine, 2003 Science Education Camp

http://sa.ylib.com/scienc ing

The Council for Cultural Affairs, Creative Culture Garden Lecture Series http://www.ncafroc.org.tw/show/show\_news.asp?ser\_no=4

# The Council for Cultural Affairs, European Union Study Association-Taiwan, International Symposium on "Creative Industry—A Global Thought and Future Action in Taiwan

http://eusa-taiwan.org/activity/Creative%20Industry/P1.htm

### 2003 ACTIVE Taiwan 2003 (ACTIVE stands for: Advanced Commercialized Technology & Innovation Venture Exposition)

http://www.technomart.org.tw/chi/news/business.php?mode=view&id=111

2003 Ministry of Education and Various Educational and Cultural Foundations, 2003 Annual Education Conference: "Innovative Learning, Challenging the Future"

### Part 7:

What competitions that encouraged creative education has Taiwan held?

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## 2003 Department of Education, Taipei City Government, 2003 International Elementary Computer Creativity Essay Competition

http://www.ktps.tp.edu.tw/cc/child/write/write.htm

### 1995 Yuan T. Lee Foundation Science Education for All, *Interesting Science Competition*

http://www.ytlee.org.tw/view/funact/main.htm

National Taichung Teachers College, Taichung City Government, Compulsory Education Advisory Group of the Taichung City, *Taichung Elementary Science Education Creativity Competition* 

http://mediacd.tceb.edu.tw/user197/creative.htm

National Taipei Teachers College, SARS Prevention: Creative Science Event http://www.tp.edu.tw/7event/rule.jsp

# 2005 National Taipei Teachers College, National Taiwan Normal University, Chinese Creativity Development Association, *Power Tech National Youth Creative Contest*

Objectives:

- 1. Incorporates creative thinking with technological innovation activities.
- 2. To broaden students' scope of knowledge in technology and foster their ability of independent thinking.
- 3. All the work from mechanical and functional design and feature design to material selection and actual production will have to be completed within a given period of time (about 3hrs).
- 4. Students will be required to apply relevant knowledge that they have acquired in the classroom such as graphic design, mechanical architecture, and material qualities. http://www.ccda.org.tw/pt2003

SUN NET Technology, Learnbank, and various organizations, e-learning http://event.cityfamily.com.tw/anicam/a5\_1.html

# 2005 Department of Civil Engineering, National Taiwan University, The Third National High School Intelligent Ironman Creativity Contest

\*Qualification Round: July 3, 2005, 4 regions held simultaneously.

- 1. Competition Starts from 8:50 to 21:00; Separated into four missions
- 2. Qualification round uses both accumulation and elimination method.
- 3. The accumulated score for the first three missions decides which teams enter the forth mission.

- 4. The third mission will determine the 24 finalists.
- \*Final Competition July 7<sup>th</sup>-10<sup>th</sup>, 2005, National Taiwan Science Education Center, Taipei
- 1. One major project to be completed in 72 hours. Judges will determine final score.
- 2. Grading standard: according to creativity, beauty, main theme expressing, function superiority money earned from finishing various side missions.

http://ironman.creativity.edu.tw/firstpage.html

Department of Education, Taipei City Government, National Taiwan Normal University, Vocational Education and Technical Research Center, Chinese Creativity Development Association, *Vocational Student Technological Creativity Training and Competition Event* 

http://140.22.79.189/declare.htm

# 2005 Advisory Office of the Ministry of Education, National Chengchi University, Department of Advertising, 3rd Creative Campus Space Selection Competition

This competition is part of one of the 6 action plans (Developing a Creative Campus) that resulted from the Ministry of Education's research project on creative education. University and vocational students were encouraged to compete individually or as a team. Each contestant/team was required to photograph what they considered as the most creative part of campus and write a story about the particular area. In addition, the contestants/teams had to use their imagination to develop new and innovative ways of utilizing that particular area.

http://creativeyuan.creativity.edu.tw/index.htm

### 2005 National Science Council, National Cheng Kung University, 2005 International University Student Creativity-in-Action Contest in Taiwan

The theme of this competition is "New Realm", which can be emphasized, but not limited to, Creative Environment, Sustainable Resources, E—Life, Security, and Good Health, etc. The final works of the international teams will be displayed on December 18th, 2005 during which the judges will evaluate all works according to:

Realization ability (30%): Team-work effort and ability of invoking new technologies.

Creativity (60%): Compatibility with the main theme "New Realm", originality, humanity concern and marketability.

Presentation of the work (10%): Skills of presentation.

The competition will be divided into two categories: domestic and international competitions. The 60 final domestic teams will be selected from more than 300 contestants. Invited international teams compete with the best three domestic teams on December 18th, 2005 in Kaohsiung, Taiwan.

http://cia-contest.cycu.edu.tw/explain.asp

# 1997 The Department of Technological and Vocational Education, Ministry of Education, *The 7<sup>th</sup> National College Robot Competitions*

In efforts to raise students' creativity level, in 1997, the Ministry of Education began to promote a national technological and vocational schools' competition on creative design and manufacture.

http://www.yuntech.edu.tw/~aax/06/080-01.htm

## Chemical Engineering Association, Chemical Engineering New Outstanding Creativity Competition

http://203.64.180.69/Chem-E-Car/

National Central University, National Chiao Tung University, National Yang-Ming University, Tsing Hua University, *Pine, Bamboo, Willow, Plum Creativity Competition* 

http://www.ust.edu.tw/news/news 04.htm

### 2002 Department of Business Management, Sun Yat-Sen University, 2002 National Vocational Nonprofit Work Creative Marketing Strategy Competition

University students were invited to participate in this competition. The contest composed of student teams (no more than 5 persons were allowed in a team), with each team being led by one professor. Each team had to select a nonprofit organization to work with for the competition. The students were required to interview that NPO to understand the organizational structure, how the NPO operates, what special characteristics does the NPO possess, and the needs of the NPO. Thereafter, each team had to develop a marketing plan for that particular NPO.

http://www.ba.ncku.edu.tw/chinese.htm

### United Microelectronics Corp. (UMC), Vocational and Undergraduate Creative Electronics Competition

http://www.exc-teacher.moe.edu.tw

### 2003 Trend Micro Enterprise, First Technology Web Creative Competition http://www.trend.com.tw/activity/web-contest2003/main.html

Ministry of Economic Affairs, R.O.C., Intellectual property Office, *National Student Creativity Competition* 

2005 National Arts Digital Creation On-line Competition

The competition utilizes computer technology to encourage digital artwork and promote art education.

http://www.icareasia.com.tw/art1/

# Chinese Society for Management of Technology, The Innovation Incubator Center at National Chiao Tung University, *Student Creativity Award*

http://www.csmot.ort.tw/index.asp?nul=c

#### ADHNTECH Foundation, Technology Innovation Competition 100

Currently, Taiwan's entrepreneurship competitions mainly comprise of ADHNTECH's TIC 100, and \*WE WIN. During the competition, besides learning how to work as a group, students gain many practical experiences such as how to write a business plan, financial planning, marketing strategizing, and so forth.

http://tim.nccu.edu.tw/new91/doing.htm

#### Industrial Bank of Taiwan, Win by Entrepreneurship Creativity Competition

The competition emphasizes the importance of innovation and technology. It is hoped that during the competition, through creativity, innovation, and teamwork, great success may be achieved.

http://www.wewin.com.tw/

#### 2004 LITE-ON, International Trade Institute, LITE-ON Innovation Award

http://active.udn.com/2004liteon/index2.htm

National Taiwan Science Education Center, Republic of China Science Education Creative Game Teaching Materials Competition

http://www.ntsec.gov.tw/singame.htm

2000 Ministry of Education, Taipei Municipal Teachers College, Taipei Elementary and Middle School Teacher "Life Education: Creative Proposal" Design Selection

http://210.60.194.100/life2000/nowreporter/news/news920321\_1.htm

National Institute of Educational Resources and Research, *Elementary and Middle School Teacher Educational Media Competition* 

http://192.192.169.101/et/Query/epaper\_text.phtml-id=11.htm

National Taiwan Arts Education Center, 1<sup>st</sup> National Middle School Arts and Humanities Pedagogic Design Competition

http://www.icareasia.com.tw/art/main.asp

### 2004 Science and Education Department, National Science Council, *The Annual*2004 Math Creative Pedagogic Contest

The competition targets elementary, middle, and high school science education teachers, student teachers, substitute teachers and students who have taken math and science pedagogy classes. The contest invites teachers to submit creative science education teaching methodologies that help stimulate student's thinking skills, strengthen their creativity skills, and encourage students to be proactive in their mathematics and science education. Contestants could submit a variety of products such as a written description of their methodology, a videotape, and audiotape, and so forth.

http://libai.math.ncu.edu.tw/cp/3rd/pages/cp.htm

### The Humanistic Education Foundation, *Grade 1-9 Curriculum: Teaching Pedagogy Innovation Award*

The award is given to public and private school superintendents, principals, teachers and other members of society who exhibit creativity. In response to the "Grade 1-9 Curriculum" reforms, the need to provide more concrete and feasible teaching models, and to enrich course content, this award was designed to reward, encourage and promote innovative teaching methods.

http://hef.yam.org.tw/plan/01.htm

### 2005 Taiwan Creativity Development Association, *Great Tech: Creative Teaching Award*

Teaching strategies and teaching methods have direct impact on students' value system, self-concept and their interest in learning. Hence, it is important to first decide the purpose of education before selecting a corresponding teaching method. Therefore, TCDA has created this award for teachers to enhance their teaching strategies and teaching methods.

http://www.ccda.org.tw/

# Merit Times Daily News, Broadcasting Corporation of China (BCC), ERA Digital Media, National Education Radio, *POWER Teacher Award*

This award is a highly selective honor that begins with nominations from each city and county. These nominees then compete nationally for the award. To be nominated, educators must have a minimum of 5 years teaching experience and must fit the mission statement of the POWER Teacher Award.

http://www.wfdn.com.tw

National Teachers' Association R.O.C., SUPER Teacher Award (previously

#### named POWER Teacher Award)

Educators from pre-school to high school and vocational schools with a minimum of 3 years teaching experience, whose teaching methods display a high level of creativity, who are highly regarded by their students and have a positive influence on their students are allowed to either nominate themselves or be nominated by students, parents, co-workers, principals, and school or teachers associations.

http://mail.wufai.edu.tw/~teachparty/new page 7.htm

#### Ministry of Education, Excellent Teacher Award

Public and private high school, middle school and elementary teachers are eligible to receive this award. Because teachers have such a large influence over their students and their learning achievements, in order to encourage teachers and improve teaching methodologies, the Ministry of Education founded the Excellent Teacher Award to recognize outstanding achievements in education and pedagogy.

http://www.exc-teacher.moe.edu.tw

National Taiwan Arts Education Center, 1<sup>st</sup> National Middle School Arts Education Pedagogic Design Competition

Taiwan Creativity Development Association, Creative Teaching Award

# 2005 Taiwan Creativity Development Association, School Innovation Management Award (InnoSchool)

Background: Awarded based on the ideology of organizational development to encourage those teachers who can promote educational reference. The School Innovation Management Award is organized to encourage the relevant officials to place importance on the quality of school education. It also encourages schools to create, innovate and to build active administrative systems. TCDA has created this award for schools to enhance their educational infrastructures and its environments.

Objectives:

- 1. To enhance school organizations' management studies, and to build productive schools.
- 2. To unite education reform, generate management team morale, and enhance schools' competitiveness.
- 3. To recognize school management organizations' effort and creativity, and enhance the quality of education.
- 4. To encourage each school to provide distinctive management styles and experiences among other schools for the purpose of sharing and learning.

http://www.ccda.org.tw/

### National Taipei Teachers College, Chinese Creativity Association, *Award of Creative Leadership*

http://tea.ntptc.edu.tw/~ygw/

Heavenly Palace, *Heavenly Palace Creative Chinese Calligraphy Competition* http://www.ht.org.tw/htk/news/letter.asp?id=240

#### National Education Radio, Do Re Mi Creative Painting Competition

http://www.ner.gov.tw/ner/home/mainwebsite/news.php? news\_no=196&nclass\_no=2

National Youth Commission, Executive Yuan, Taiwan Asian Democratic Resource Association, NPO Creative Youth Competition

http://www.ark-democracy.org

2002 DPI's Design Magazine, Egg Interactive, DPI 2002 National Creative Design Competition

http://www.gowisdom.com.tw/idea2002.nsf

2003 Industrial Development Bureau, Ministry of Economic Affairs, Digital Content Industry Promotion Office, Web Multimedia Industry Development Promotion Plan, 2003 4 C (Creative, Commercial, Comprehensive, Copyright) Digital Creative Product Competition

In efforts to advance Taiwan's digital industry and to encourage talented personnel to invest in digital design teamwork, the competition sought to encourage people to further develop the digital industry and hence raise Taiwan's overall competitiveness. The 4 C's stand for: Creative, Commercial, Comprehensive, and Copyright. http://www.iicm.org.tw/activity/20030320game/

2003 Ministry of Economic Affairs, Industrial Development Bureau, International Trade Institute, 2003 Taiwan International Creative Design Competition http://www.taiwandesign.net

Industrial Development Bureau, Ministry of Education, Taiwan Trade (look up), 1<sup>st</sup> Innovative Software System Creativity Competition http://iicm.org.tw/activity/20010816/index.html

Executive Yuan, Council for Cultural Affairs, Cultural Affairs Bureau, Yilan County, Recreating History for Today's Society

http://www.iarchi.net/ai\_news/1215.html

### 2001 Agfa Photo GmbH Company, 2001 Agfa Photo International Youth Creative Design Competition

http://media.pccu.edu.tw/ccunews/axion/axn20010206-1.htm

#### 2004 Libertytimes, 2004 A4 Free Creativity Award

http://www.libertytimes.com.tw/2004/2004 4A 1.htm

#### The Taiwan International Piano Competition

The awards for the first world piano competition combine the legendary Bajie shape with high musical notes to illustrate the high honor of the top prize or Golden Award. The Special Award takes the shape of the Chinese character for world, shu. Attached to a metronome, it signifies Taiwan's spatial and temporal connection to the global city. Located at the center of the Pan Pacific Region, Taiwan occupies a unique position on the world stage. The influence of Asian culture is now on the rise, and Taiwan is at the center of Asian culture and arts.

http://www.taiwanpiano.org/index02-en/index02-en.html

National Taiwan Arts Education Center, *Arts and Humanities Creation Award* http://www.arte.gov.tw/chinese/archinve/laa92.html

## Ministry of Economic Affairs, Industrial Development Bureau, *National Quality Award*

National Quality Award is the highest national honor granted on quality; the mission is: to establish the highest quality control paragon for corporations and organizations to study and learn from. Furthermore, through the review process, the quality control standard will be referential to corporations and organizations on strengthening organizations and enhancing competitiveness.

http://nqa.csd.org.tw/eng/main.htm

### 2003 Ministry of Economic Affairs, Small and Medium Enterprise Administration, 2003 National Innovation Industry Award

### 1997 Ministry of Economic Affairs, Small and Medium Enterprise Administration Innovative Research Fund

With competition having become more intense, the government has been working tirelessly to speed up the process of SME upgrading and transformation and to encourage start-ups in new business areas. Every year since 1997, the government has allocated funds from the SME Development Fund to provide guidance for public and

private sector organizations regarding the establishment of incubator centers for SMEs. The intention is that these incubator centers should provide SMEs with the various services that they need during the process of business start-up, including the provision of office space, laboratory facilities and support in the areas of technology, human talent, commercial operations, information, administration and funding.

http://www.moeasmea.gov.tw/Ent Praise/

%E5%89%B5%E6%96%B0%E7%8D%8E.asp

#### Silicon Valley Tech Museum of Innovation, Tech Award

The Tech Museum Awards honor innovators and visionaries from around the world who are applying technology to profoundly improve the human condition in the categories of education, equality, environment, health, and economic development. Individuals, for-profit companies, and not-for-profit organizations are eligible. The Tech Awards showcase their compelling stories and reward their brilliant accomplishments. The Tech Awards program inspires global engagement in applying technology to humanity's most pressing problems by recognizing the best of those who are utilizing innovative technology solutions to address the most urgent critical issues facing our planet. Each year, candidates are nominated and then invited to submit applications. International panels of judges carefully review the applications according to a set of criteria that emanate from the Awards credo — Technology Benefiting Humanity. At the Awards Gala each fall, five Laureates in each category are honored, and \$250,000 in cash prizes is awarded.

http://www.nsc.gov.tw/eng/0000/n1/n001.htm, http://www.thetech.org/techawards/

TECO Technology Foundation, 10<sup>th</sup> TECO Technology Award http://www.tecofound.org.tw/

Hsinchu Science Park, Taiwan, *Innovative Products Award* http://www.sipa.gov.tw/1/in7/index-in7-2.htm

### Part 8:

Which websites contain information that propagates or advances creativity?

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Planning and Implementation office Subsidized by Ministry of Education http://www.creativity.edu.tw

Center for Creativity and Innovation Studies http://www.ccis.nccu.edu.tw/englishindex.asp

National Sun Yat-Sen University, Institute of Communication Management, "Creative Learns"

http://www.icm.msysu.edu.tw/camp/news.htm

Creativity Cultivation in Business http://cnet.creativity.edu.tw

Professional Development for Creative Teachers http://cteacher.creativity.edu.tw/modules/news/

Creative Campus http://creativeyuan.creativity.edu.tw/index.htm

Creative Education Planning and Implementation http://tour.creativity.edu.tw/about/index.htm

Small and Medium Enterprise Incubation Center http://incub.cpc.org.tw/index.htm

Innovation Venture Academy http://tim.nccu.edu.tw/iva/

Creative Teaching E-Newsletter http://edunews.isst.edu.tw/

NCU Create
http://create.ncu.edu.tw

Gifted Educators Network http://www.gifted.edu.tw

**EduCities** 

http://www.educities.edu.tw/

Taiwan Elementary and Secondary Educator Community (Grade 1-9 Curriculum) http://teach.eje.edu.tw/9CC/index.php
National Teachers' Association
http://www.nta.tp.edu.tw

Bin Ocean, Children's Art http://yoyo.center.kl.edu.tw/

Smart Creative Teachers http://sctnet.edu.tw/

Learning Resource Site, an Educational Resource http://content.edu.tw/new/subject\_select1.htm

The Humanistic Education Foundation's Innovative Pedagogy Award http://hef.yam.org.tw/plan/01.htm

Creativity Resources Information Center http://3q.tmtc.edu.tw/

Department of Mechanical Engineering, *National Central University*, Creative Mechanical Engineering Resource Cite http://cedesign.me.ncu.edu.tw

2005 International University Student Creativity-in-Action Contest in Taiwan http://cia-contest.ncku.edu.tw/english.htm

TIC 100 Entrepreneurship Innovating Life http://www.tic100.org.tw/

Smart Creative Teacher's Science Education, Creative Game Competition Workshop http://sctnet.edu.tw/SIGNet/workshop.php?VC\_ID=1

"Invention School" http://www.idea.com.tw

Hey Show, http://www.heyshow.com/aboutus/Default.asp

Creativity Mutual Network, http://www.gowisdom.com.tw/inwisdom.nsf/\_t2aik84llv09api8\_/

#### \$first?open

EZ Creativity (Personal Website), http://tw.ezcreateez.com/

Top Idea, http://www.topidea.com.tw/

Online Children's Creativity Amusement Park, http://www.contest.edu.tw/85/endshow/3/heart/idea.htm

Mandarin Daily News, http://www.mdnkids.com

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