



## CLEAR - Creativity and innovation: pedagogical framework for the LEARning chain

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# Issues on creativity and innovation Literature review

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# Organizational structures/devices

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- ▶ Leadership (direction, climate, autonomy, and motivation)
- ▶ Mentoring
- ▶ Accountability
- ▶ Trustworthiness
- ▶ Advocacy
- ▶ Organizational improvement
- ▶ Leading facilitation
- ▶ Performance coaching
- ▶ Servant leadership
- ▶ Team working
- ▶ Communication
- ▶ Coaching
- ▶ Project management
- ▶ Learning to learn
- ▶ Visioning
- ▶ Change management leadership
- ▶ Experiential, project-based learning environments
- ▶ Tutor confidence and ability to inspire



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1. Leadership and Innovation
  2. Teamwork and Innovation



# 1. Leadership and Innovation

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Theoretical framework:

- ▶ **Leadership and Innovation**: Andrews & Farris, 1967; Barnowe, 1975; Weick, 1995; Mumford, Scott, Gaddis, & Strange, 2002; Vinarski-Peretz and Carmeli, 2011

Main Thesis: “Leader effectiveness is critical to the success of creative work in organization”:

- ▶ Studies of the impact of **leader effectiveness** on the success of creative efforts typically produce validity coefficients in the .30-to-.40 range
  - ▶ One way to improve **creativity and innovation** is by improving **leadership performance**
  - ▶ Leader may have sizable effects through a variety of mechanisms such as **direction, climate, autonomy, and motivation**
  - ▶ The literature explores some **techniques** aiming at enhancing the capability for effective leadership of creative efforts
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# 1. Leadership and Innovation

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*Hunter and Cushenbery (2011)* explore the role leaders may have on creative teams analyzing some direct/indirect effects such as:

- ▶ **Climate**
- ▶ **Role modeling**
- ▶ **Vision definition**
- ▶ **Recognition**

*McEntire and Greene-Shortridge (2011)* analyze some recruitment techniques to select those asked to lead creative efforts such as:

- ▶ Use of **professional networks** for recruitment
  - ▶ **Panel interviews** for selection
  - ▶ **Behavioural assessments**
  - ▶ **Behaviourally based interviews**
  - ▶ **Innovation** targeted succession planning
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# 1. Leadership and Innovation

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*Williams and Foti (2011)* stress the importance of **formal instruction** based on:

- ▶ **creative problem solving**
- ▶ **thinking skills**
- ▶ **divergent** and **convergent** thinking

*Ligon, Wallace and Osburn (2011)* stress the importance of a **systematic mentoring** among other requirements :

- ▶ **Knowledge**
  - ▶ **Skills**
  - ▶ **Abilities**
  - ▶ **Experiential development**
  - ▶ **Mentoring**
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# 1. Leadership and Innovation

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*Antes and Schuelke (2011)* point out the lack of clearly articulated objectives for **developmental programs**. They describe a number of techniques which allow leaders to capitalize on **experiential, case-based knowledge**:

- ▶ **Simulations**
- ▶ **E-mentoring**
- ▶ **Multisource feedback**
- ▶ **Social media**
- ▶ **Succession planning programs**

*Waples and Friedrich (2011)* merge findings from literature about **creativity** with literature about **leadership** and **performance management**. Techniques such as **goal setting** and **performance appraisal** prove to be fruitful if these are applied in an opened and creative way



# 1. Leadership and Innovation

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Gilley and Shelton (2011) propose one potential **competence-based system** for the management of creativity in organizations

Key-competences are:

- ▶ **Accountability**
- ▶ **Trustworthiness**
- ▶ **Advocacy**
- ▶ **Organizational improvements**

Key-roles are:

- ▶ **Leading facilitation**
  - ▶ **Motivation**
  - ▶ **Performance coaching**
  - ▶ **Servant leadership**
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## 2. Teamwork and Innovation

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Theoretical framework:

- ▶ **Teamwork and Innovation:** *Amabile, 1983, 1996; James et al., 1984; Watson et al. 1991; Diehl & Stroebe, 1991; Weick & Roberts, 1993; Ford, 1996; Ruscio et al., 1998; Madhavan & Grover, 1998; Sicotte & Langley, 2000; Schulz & Hardt et al., 2000; Hoegl & Gemuenden, 2001; Taggar, 2002; Okhuysen & Eisenhardt, 2002; Thompson, 2003*

Example from the article: Hoegl, M. & Parboteeah, K.P., (2007), creativity in innovative projects: how teamwork matters, *Journal of engineering and technology management*, Vol. 24, pp. 148-166

Main Thesis: the **quality of teamwork** is an important moderating condition **facilitating the application of domain-relevant skills**, while **obstructing the application of creative thinking skills**

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## 2. Teamwork and Innovation

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Teamwork quality as a construct with six facets:

- ▶ Communication
- ▶ Coordination
- ▶ Balance of members contribution
- ▶ Mutual support
- ▶ Effort
- ▶ Cohesion



## 2. Teamwork and Innovation

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Subjects of the research and design of research:

- ▶ **145 software development teams** from 4 German software development laboratories
- ▶ A total of **575 data collection session** with members, leaders, and team external managers referring to 145 software development teams were conducted



## 2. Teamwork and Innovation

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Results of research:

- ▶ Teamwork quality significantly **negatively** moderates the relationships of **creative-thinking skills with effectiveness and efficiency**
- ▶ Teamwork quality significantly **positively** moderates the relationship between **domain-relevant skills and team efficiency**, but not between **domain-relevant skills and team effectiveness**
- ▶ **Teamwork quality** shows a direct relationship with **team effectiveness**



# Individual characteristics

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- ▶ Knowledge
- ▶ Skills
- ▶ Abilities
- ▶ Autonomy
- ▶ Motivation
- ▶ Entrepreneurial behaviour
- ▶ Entrepreneurial opportunities recognition
- ▶ Individual action and reflection
- ▶ Personal attitudes toward creativity and innovation



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1. Creativity and entrepreneurship
  2. Creativity and opportunities search strategies



# 1. Creativity and entrepreneurship

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Theoretical Framework:

- ▶ **Creativity and entrepreneurship:** Sternberg and Lubart, 1999; Flynn et al., 2003; Ward, 2004; Zhao, 2005; Jackson et al., 2006; Gomez, 2007; Craft, 2008; Hytti et al., 2010; Hamidi et al., 2008; Penaluna et al., 2010; Carey & Matlay, 2010
- ▶ **Creative economy:** Sawyer, 2006; Florida, 2002; Howkins, 2001; Lee et al., 2004
- ▶ **Learning and entrepreneurship:** Rae & Carswell, 2000; Kuratko & Hodgetts, 1998; Van Vuuren, 1997; Gibb, 1985

Example from the article: Sarri, K.K., Bakouros, I.L., Petridou, E., (2010), Entrepreneur training for creativity and innovation, *Journal of European Industrial Training*, Vol. 34, Iss: 3, pp.270 - 288

Main thesis: **Creativity is related to entrepreneurship**. Studies have found that entrepreneurship and innovation are positively related to each other and interact to help an organization to flourish

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# 1. Creativity and entrepreneurship

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- ▶ The article investigates the importance of **entrepreneur training** in **creativity and innovation**
- ▶ The purpose is to **identify entrepreneurs' awareness, attitudes and perception** in relation to **creativity and innovation** in order to design and develop **training interventions**
- ▶ **Learning** here is seen as a **dynamic process** which enables **entrepreneurial behavior** to be enacted





# 1. Creativity and entrepreneurship

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Subjects and design of research:

- ▶ **116 entrepreneurs from SMEs** (small and medium enterprises) in three regions of the **Northern Greece**

The data gathered explored entrepreneurs' attitudes and perceptions toward these three areas:

- ▶ **significance of creativity and innovation;**
- ▶ **importance and value of creativity and innovation** in relation to the **development of their business**
- ▶ respondents' needs for **training** and **tools** on creativity and innovation



# 1. Creativity and entrepreneurship

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## Findings:

- ▶ entrepreneurs are **aware** of the importance of creativity and innovation in all the three regions examined
- ▶ Entrepreneurs **recognize their need** for enhancement efforts in creativity and innovation **training and tools**, for themselves and for the other members of the organization
- ▶ Entrepreneurs identify **lack of financial resources and availability of time** as obstacles in participating in **training programs**



## 2. Creativity and opportunity search strategies

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Theoretical framework:

- ▶ **Viability of the business idea literature:** *Vesper and McMullan, 1988; Penaluna & Penaluna, 2008, 2009; Pittaway et al., 2009*
- ▶ **Creativity in entrepreneurship literature:** *Ward, 2004; Jackson et al., 2006; Gomez, 2007; Craft, 2008; Hytti et al., 2010; Hamidi et al., 2008; Penaluna et al., 2010; Carey & Matlay, 2010*
- ▶ **Opportunity search strategies literature:** *Miller, 1987; Kirzner, 1999; Ardichvili et al., 2003; Puhakka, 2007; Companys and McMullen, 2007; Tang & Khan, 2007; Heinonen et al., 2010*

Example from the article: Heinonen, J., Hytti, U. and Stenholm, P., (2011), the role of creativity in opportunity search and business idea creation, *Education and Training*, Vol. 53, Iss: 8, pp. 659 - 672

Main Thesis: Distinctive strategies for searching out opportunities are **proactive searching, knowledge acquisition, innovative behavior and collective action**. Creative behavior comprises the search for opportunities in the external environment in a proactive and innovative way

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## 2. Creativity and opportunity search strategies

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- ▶ The article investigates **relationships** between **student creativity**, **various opportunity search strategies**, and the **viability of business idea** developed during an **entrepreneurship education module**
- ▶ The authors focus on two extreme opportunity search strategies, namely **creative behavior** and **knowledge acquisition** to illustrate the **co-existence of art and science** in the process of **entrepreneurial opportunity recognition**



## 2. Creativity and opportunity search strategies

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The study investigates two facets of entrepreneurship:

- ▶ *the art* conceived here as **creative and innovative thinking** which can **enable the viability of a business idea**
- ▶ *the science* conceived here as **business competence and knowledge**

These two aspects are here conceived as **two different types** of opportunity search strategies



## 2. Creativity and opportunity search strategies

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Subjects and design of research:

- ▶ 117 students participated in pre-programme and post-programme surveys
- ▶ The entrepreneurship education module was organized in three team groups. Students were assigned to create a business idea combining three different industries in a innovative way
- ▶ This assignment was designed to support idea generation as a creative process as showed in previous studies (role of team and student motivation in learning, Hytti et al., 2010)



## 2. Creativity and opportunity search strategies

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### Findings:

- ▶ **Creativity** is not directly associated with the viability of the business idea
- ▶ **Influence of creativity** on the viability of the business idea is fully mediated by **those opportunity search strategies** that are **creative** and based on **knowledge acquisition**
- ▶ Process of **recognizing entrepreneurial opportunities** involves **individual action** and **reflection** for the development of a business idea
- ▶ **Creativity** also has to be accompanied by **opportunity search activities** to generate **viable business idea**



# Training methods / pedagogical practices

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- ▶ Creative problem solving and thinking skills
- ▶ Experiential development
- ▶ Developmental objectives
- ▶ Learning prompts
- ▶ Reflection questions
- ▶ Leveraging technology via simulations
- ▶ E-mentoring
- ▶ Multisource feedback
- ▶ Social media
- ▶ Succession planning programs
- ▶ Regular peer reviews
- ▶ Assessment without examinations or writing
- ▶ Strategies of emotional engagement
- ▶ Considerations of process over output
- ▶ Extended self and peer assessment
- ▶ Practitioner-led engagement and experience of real life scenario





# Training methods/pedagogical practices

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- ▶ Business beyond the Box
- ▶ Lateral thinking
- ▶ De Bono course or six thinking hats
- ▶ Creative teaching
- ▶ Disciplined improvisation
- ▶ Constructivism
- ▶ Project-based learning
- ▶ Collaborative learning
- ▶ Contextualization
- ▶ Using metaphor
- ▶ Problem-based learning (PBL)
- ▶ Project learning
- ▶ Central conceptual structures
- ▶ Creative problem solving
- ▶ Emotional engagement
- ▶ Co-operative Learning
- ▶ Inquiry-based learning
- ▶ Formative assessment



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1. Creativity and pedagogical practices
  2. Creativity and assessment



# 1. Creativity and pedagogical practises

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Theoretical framework:

- ▶ **Creativity literature**: Robinson, 2001, 2009; Hargreaves, 2003; Sahlberg, 2009;
- ▶ **Competitiveness and global sustainability in Educational Policies literature**: Brundtland, 1987; Bils & Klenow, 2000; Rees, 2003; Steffen et al., 2007; Glaser et al., 2004; Porter et al., 2004, 2008; Meadows et al., 2004; UNESCO, 2005; Doppelt, 2008;

Example from the article: Sahlberg, P. and Oldroyd, D., (2010), Pedagogy for Economic Competitiveness and sustainable development, European Journal of Education, Vol. 45, No. 2, 2010, Part I

Main Thesis: The authors highlight the discrepancy between the **policy of standardization of the Lisbon Strategy** through comparative results studies such as **PISA studies** and **the need to a certain degree of freedom in experimenting ways to achieve creativity and innovation in the current curricula**. This requires, as the authors argued, wider and more frequent use of **adequate methods of teaching and work that promote collaboration, creativity and focus on students' individual talents**

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# 1. Creativity and pedagogical practises

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Creativity as intended by Robinson (2001) **as inventiveness to come up with new ideas, processes and products that have value**

The article explores the three key conditions that make **teaching compatible** with the **needs of competitiveness and sustainable development**:

1. New conception of Knowledge seen as relativistic and diverse in sense of interpretations and created through **multiple processes**, including **hermeneutic** and **subjective scientific methods**
  2. Better understanding of innovation, intended here as a process of extraction of economic and **social value from knowledge**. It put ideas, knowledge and technology to work in a manner that brings about a significant improvement in performance
  3. Focus on social capital: successful economies and highly creative communities are based on the idea of **strategic alliances** rather than raw competition for markets and clients
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# 1. Creativity and pedagogical practises

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The authors elaborated a table which summarize the main **teaching and learning methods** relating to **creative skills for future competitiveness and sustainable development**

The main approaches are:

## 1. Co-operative Learning

Main skills:

- ▶ Academic achievement
- ▶ Positive about self, subjects, learning and teachers
- ▶ Positive about others
- ▶ More effective interpersonal skills and relations
- ▶ Awareness of group collaborative processes

## 2. Problem-based learning (PBL)

Main skills:

- ▶ Problem-solving with application to both entrepreneurship and sustainable development based on finding creative solutions and building consensus



# 1. Creativity and pedagogical practises

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## 3. Project learning

Main skills:

- ▶ Project skills with application to both entrepreneurship and sustainable development with particular focus on use of ICT and evidence based decision-making

## 4. Central conceptual structures

Main skills:

- ▶ creative pedagogy of gaming
- ▶ story production
- ▶ musical composition

## 5. Creative problem solving

Main skills:

- ▶ powerful meta-cognitive process involving divergent and convergent thinking that can be applied to both entrepreneurial and environmental challenges



# 1. Creativity and pedagogical practises

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Main considerations:

The authors argued that **such pedagogies and models are already available** and have been tested by large- scale field experiments and empirical research since the early 20<sup>th</sup> century

**A broader and less constricted curriculum and system of assessment are therefore needed to facilitate reformed methods of teaching**



## 2. Creativity and assessment

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Theoretical framework:

- ▶ **Assessment within entrepreneurship education literature:** Pittaway and Cope (2007); Penaluna and Penaluna, 2006, 2008; Carey and Matlay, 2007;

Example from the article: Carey, C., Matlay, H., (2010), creative disciplines education: a model for assessing ideas in entrepreneurship education?, Education & Training, Vol. 52, Iss: 8, pp.694-709

Main Thesis: **Current practices in art and design schools** within the formal system of Higher Education in the UK have recently received some attention, especially regarding the way these schools deliver **curricula and their approaches to assessing student's work**





## 2. Creativity and assessment

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Creative disciplines education is characterized by **experiential**, **project-based learning environments** and **regular peer reviews**

**Educators** in this field are frequently also **practitioners**

**Assessing Methods** from these discipline that are here highlighted are:

- ▶ **Assessment without examinations or writing**
- ▶ **Strategies of emotional engagement**
- ▶ **Considerations of process over output**
- ▶ **Extended self and peer assessment**
- ▶ **Practitioner-led engagement and experience of real life scenario**



## 2. Creativity and assessment

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Subjects and design of research:

- ▶ **Entrepreneurs** from **13 sub-sectors** of the **creative industry sector** (13 subjects)
- ▶ Respondents to the survey were distinguished in **8 different types of educators and practitioners** from different creative disciplines (**design, advertising, music, etc.**)
- ▶ The exploration of **different creative styles and ideas** suggested to adopt these **techniques by generic enterprise education** in **business schools** and **other faculties**



## 2. Creativity and assessment

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Main results:

- ▶ Assessment is often characterized by **formative, peer enabled and discussion based techniques**
- ▶ Students are required to **present publicly their work and ideas**
- ▶ Assessment process is firmly positioned within **the context of a critique**
- ▶ Ideas assessment techniques within creative disciplines are **well embedded in practice** and applied consistently in the context of an academic framework

The article stresses the importance of the educator's **relationship to industry**, this link offers a **real world perspective** and helps students to **contextualize their works and ideas**



# Training content

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- ▶ Divergent and convergent thinking
- ▶ brainstorming
- ▶ mind-mapping
- ▶ lateral thinking
- ▶ morphological analysis
- ▶ Team working
- ▶ Communication
- ▶ Project management
- ▶ Student-centered pedagogy
- ▶ Work-based learning
- ▶ Experiential learning
- ▶ ability to visualize ideas
- ▶ effective use of memory to integrate new knowledge with prior knowledge



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1. Creativity and Tertiary Education
  2. Creativity and Secondary Education



# 1. Creativity and tertiary education

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## Theoretical framework:

- ▶ **Work-based learning literature:** Dewey, 1938; Polanyi, 1966; Kolb, 1985; Levi et al., 1989; Brennan and Little, 1996; Bransford et al., 2000; Boud and Symes, 2000
- ▶ **Experiential learning that promote creativity and innovation:** Gibb, 1996, 2002; Cope and Watts, 2000; Hannon, 2004; Pittaway and Cope, 2005; Solomon, 2005; Smith et al., 2006; Rae, 2010
- ▶ **Creative teaching literature:** Amabile, 1983; Bereiter, 2002; Sawyer, 2004; Simon and Hicks, 2006; Grainger, Barnes and Scoffham, 2004; Cutler, 2003;
- ▶ **Characteristics of creative thinking:** DeWulf and Baillie, 1998; De Bono, 1970; Nickerson, 1999; Michalko, 2006

Example from the article: Gibson, R., (2010), The art of creative teaching: implications for higher education, Teaching in Higher Education, Vol. 15, Iss:5, pp. 607 – 613

Main Thesis: The article explores **the subversive nature of creativity**, the value of **creative teaching** and proposes a **number of strategies** Higher Education universities should adopt in **their curricula**. The author considers the role played by the **educational environment in developing students' creativity** and asks himself if creativity is to be found in universities and colleges

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# 1. Creativity and tertiary education

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The author propose a **student-centered pedagogy** for nurturing creativity in Higher Education. He gives some examples about a number of techniques which could be applied in tertiary institutions:

- ▶ Creative teaching requires an **openness to experience**, a willingness to **take risks** and healthy amounts of **flexibility, spontaneity and open-mindedness**
- ▶ Creative teaching should be viewed as **disciplined improvisation** because it always occurs within **broad structures and existing frameworks**

Creative teaching possesses the following characteristics:

- ▶ **Active participation** of the student
  - ▶ Opportunity for **inquiry-based learning**
  - ▶ **Constructivism**
  - ▶ **Project-based learning**
  - ▶ **Collaborative learning**
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# 1. Creativity and tertiary education

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Creative teaching includes:

- ▶ Contextualization
- ▶ using metaphor
- ▶ style and pace of delivery
- ▶ tutor confidence and ability to inspire
- ▶ valuing students
- ▶ emotional engagement
- ▶ to reflect upon their own learning

Creative individuals produce better work if they are **intrinsic motivated** and personally committed rather than for an extrinsic reward

The communities that foster creativity should be:

- ▶ Opened for diversity
  - ▶ Collaborative
  - ▶ Opened to interdisciplinarity
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# 1. Creativity and tertiary education

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He suggests some **characteristics** that the **environment** should assure for the **development of creative potential of students**:

- ▶ **Adequate time** for creative thinking
- ▶ **Rewarding creative ideas, thoughts and products**
- ▶ **Encouraging risk-taking**
- ▶ **Allowing mistakes**
- ▶ **Imagining from various perspectives**
- ▶ **Questioning assumptions**
- ▶ **Identifying interests and problems**
- ▶ **Generating multiple hypothesis**
- ▶ **Focusing on broad Ideas**
- ▶ **Thinking about the thinking process**



# 1. Creativity and tertiary education

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He argues also that **competition, restricted choices, confirming pressures, evaluation, frequent failures** can destroy this potential according to Amabile (1983). Characteristics of the university systems which do not foster creativity are:

- ▶ **Competitive ranking system** for the access to the university
- ▶ **Transmissive pedagogical process of learning**
- ▶ **Mass lectures**
- ▶ **Stress-inducing examinations**

He proposes as a possible tool a **curriculum negotiation** as a **process** whereby students have an **active role about design and content** of the **learning** and the **learning outcomes**

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# 1. Creativity and tertiary education

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- ▶ **Assessment** should here be used to encourage interest, commitment and intellectual challenge as an ongoing activity
- ▶ Assessment should not be seen as a separate entity but **integrated into the learning process**
- ▶ The art of the assessment task can be also **negotiated**, it can be **written, electronic, performance or visual mode**
- ▶ Teachers should consider the use of **partnership or learning teams** who can work together about **the assessment tasks**
- ▶ **peer assessment**



## 2. Creativity and secondary education

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Theoretical framework:

- ▶ **Entrepreneurship studies literature**: Pinchot, 1988; Wolff and von Wulffen, 1999; Schmitt-Rodermund and Silbereise, 1999; Paulini-Schlottau, 2004; Eickhoff, 2006; Hekman, 2006; Sternberg, Brixy and Schlapfner, 2006; Gonon, 2006; European Commission/DG Enterprise and Industry, 2005; Kuratorium der Deutschen Wirtschaft für Berufsbildung, 2006
- ▶ **Creativity pedagogy literature**: Koestler, 1964; Boden, 1990; Bourner and Flowers, 1997; Robinson, 2000; Florida, 2002; Eisner, 2005; Sternberg, 2006; Haring-Smith, 2006;
- ▶ **Creative teaching literature**: Amabile, 1983; Bereiter, 2002; Sawyer, 2004; Simon and Hicks, 2006; Grainger, Barnes and Scoffham, 2004; Cutler, 2003;

Example from the article: Eickhoff, M. Th., (2008), Entrepreneurial thinking and action- an educational responsibility for Europe, European Journal of Vocational Training, No. 45

Main goal: the article describes a possible **implementation of a policy** regarding **entrepreneurship** in **formal education** in all stages of education in **Germany**

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## 2. Creativity and secondary education

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- ▶ This article describes the **Plan of the leading organizations of German trade and industry** to promote **entrepreneurial thinking and actions in general secondary education**
- ▶ These competences are then also developed in **continuing education training** and in **higher education**
- ▶ The overall goal of the plan is to be able to ensure that young people can progress coherently in acquiring **entrepreneurial competences in all stages of the educational system**



## 2. Creativity and secondary education

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This plan (**Entrepreneurship Education Plan**) is designed as **a curriculum**, covering **all didactic issues**:

- ▶ target group
- ▶ intentions
- ▶ content
- ▶ methods
- ▶ Monitoring of teaching/learning outcomes

Every stage involves a **specific increase in competences** in the form of **continuous professionalization**

The main **aims** are:

- ▶ **Inclusion of entrepreneurship** into the **national curricula**
  - ▶ Providing **support to schools and teachers**
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## 2. Creativity and secondary education

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Children and young people (**primary and general secondary education**) should familiarize themselves with entrepreneurship as **a positive basic attitude**

The main **actions** to pursue this objective are:

- ▶ The knowledge of **general enterprises' functions** and their contributions to society
- ▶ To **recognize entrepreneurship** as an economic/competition factor and as an opportunity for the **reintegration of unemployed and disadvantaged**

The measures here suggested are:

- ▶ **Better training for teachers** working on team-teaching concepts, in which teachers and enterprise representatives simultaneously design the teaching
  - ▶ Teachers should be provided with **curricular recommendation, plans and topic-based media**
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## 2. Creativity and secondary education

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- ▶ For vocational training students entrepreneurship should be “taught” as **entrepreneurial attitude to work**, which is required to **entrepreneurs** but in future also to **employees**
- ▶ This should lead to **employability** and to **open up new career prospects in self-employment and to reduce youth unemployment**
- ▶ Young people should try out their entrepreneurial **skills in training, in planning games or student firms activities**

In Vocational schools methods should be:

- ▶ **case studies**
- ▶ **planning games or projects**
- ▶ **teachers and enterprise trainers** should be **trained in entrepreneurship**
- ▶ The exchange of **experience** between **practitioners** should be enforced





## 2. Creativity and secondary education

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In continuing vocational training and higher education entrepreneurship can be integrated into existing topics

Some suggested measures here are:

- ▶ manager training or lecture series
- ▶ seminars on setting up in business
- ▶ further guidance and coaching





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