Play Guidance

Newsletter #02

Play4Giuidance - A European Business Game to train and guide students and young unemployed on entrepreneurial, transversal and mathematical skills

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The P4G first Interim Meeting in Dublin, Ireland

The P4G first interim meeting was held at Dublin City University from 12-13 May. It was attended by all members of the Consortium, as well as the P4G external evaluator, Anne-Christin Tannhauser. A welcome reception took place on the evening of May 11th . Prior to arriving in Dublin, partners were provided with an agenda of the meeting, logistical support package and a detailed map with directions to accommodation on Harcourt Street.

On the first day of the meeting, after a warm welcome from Professor Joe O'Hara from DCU, Stefano Menon welcomed everyone to the meeting and enthused about the productive meeting that lay ahead. The external auditor was introduced, Anne-Christine Tannhauser. Discussions were focused on the Greatest Common Denominator Matrix, the Business Game and the development and understanding of Scenarios.

Welcome by Professor Joe O'Hara, DCU

An official dinner was held in The Quays Restaurant in Templebar and was attended by all members. This venue gave members a glimpse into traditional food, drink and music in Ireland.

Day two kicked off with presentations on Project Management and the production of outputs. To enhance the flow of communication amongst the partners it was decided to hold monthly Skype meetings. Presentations that followed included that of the Quality Plan, which is important in terms of project quality and also that of artefact quality; the External Evaluator, whose role as 'critical friend' is to assist the partnership in producing quality outputs and improve organisational collaboration; the Business Game Toolkit, which will include user guides for platform users as well as all the necessary information so that users can play the Business Game; the Syllabus, which includes a glossary of essential terms of the project activities; and finally the P4G model.

The first interim meeting in Dublin was very productive and successful and provided participants with a clear idea of the project's progress during the first reporting period, as well as definitive courses of action for moving the project

Play4Guidance has been funded within the framework of the European Union Erasmus+ programme

The Business Game: An innovative teaching tool for skills development and evaluation

National Conference in LIUC University, Italy, 13 March 2015

A national conference was organized in Italy by LIUC in collaboration with FPM on 13 March 2015. The main goal of the event was to actively brainstorm with a group of teachers of secondary education in order to reflect and share ideas on 2 main topics:
- Topic A: how to use the BG for learning purposes in secondary schools.
- Topic B: possible ways to promote the BG as an evaluation tool for school programs.

During the final competition of the annual Business Game, that involved 255 students, hosted by LIUC, the University decided to propose to their teachers an event based on activities related to the P4G project.

The program of the conference:
1. Presentation of Play4Guidance – objectives, activities and expected results
2. Division in 2 sub-groups
3. Work in sub-groups. Each group was devided in smaller groups of 3-4 people. They carried out the following activities:

a. Competences selection: Each group was asked to analyze the list of competences used for the survey (Output 2 – Initial Assessment) and to select 5 main competences essential to a young entrepreneur
b. Group 1 – brainstorming on how to use the BG for teaching the selected 5 competences
c. Group 2 – brainstorming on how to use the BG for assessing the selected 5 competences
d. Reporting session internal to the subgroups. Conclusion and reporting session altogether

Conclusions and resolution

During the national conference, in which 34 high school teachers participated, LIUC presented P4G and the assessment activities planned throughout the Business Game.

After the initial presentation, LIUC invited teachers to work in subgroups participating on sharing ideas and designing "The Pedagogical Framework and The Evaluation Tool" (Output 3.1).

Here are some interesting excerpts from working groups:

What skills could be assessed through the Business Game and which way they were chosen?

- Analytical thinking because it is important to know how to read reality to identify pathways and solutions;
- Knowing how to communicate with skill and passion (emotional engagement);
- Initiative intended as a curiosity to know each other with new and complex solutions;
- The flexibility of being able to compete in any context;
- Self-control: to target emotions to understand the problem.
- Thought conceptual ability to find solutions outside the classical schemes;
- Experience to understand the path to take;
- Search information to understand the starting point of the route;
- Innovation to improve performance: continuous correction and improvements;
- Evaluating the result compared to the expected value.
- Learning to understand the competitiveness and the desire to get involved;
- Flexibility to handle news, and the sensibility to change;
- Ability to select the many right infor-

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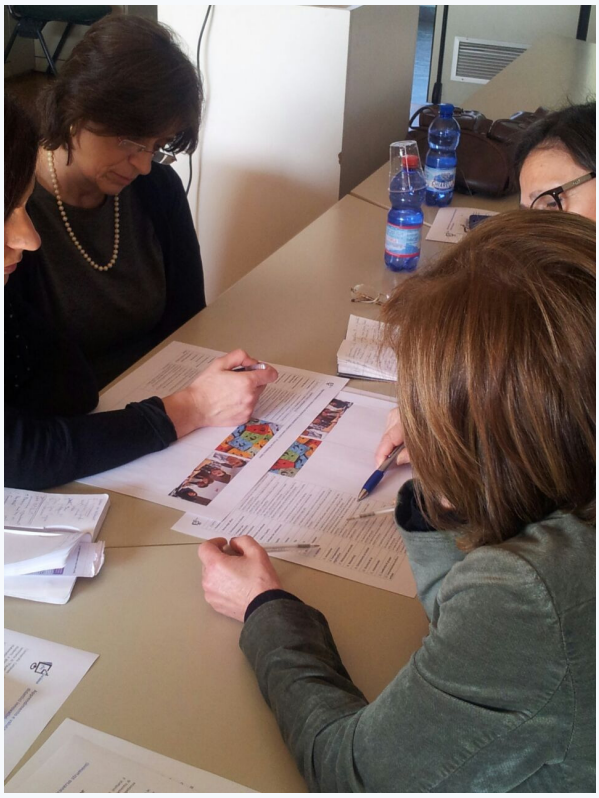

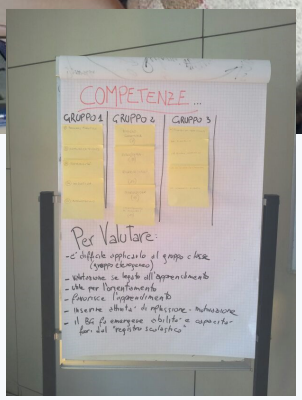

Photos from the National Conference in LIUC University, Italy, 13 March 2015
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mation to solve a specific problem;
- Scheduling a task to achieve a specific result;
- Leadership of the group as teamwork, to divide properly roles according to the capabilities of each student.

How to train or evaluate students through the Business Game?
- It 'a game for only a few people in the classroom, not for all;
- The business game should also be used on other occasions and not only to evaluate students;
- In a heterogeneous classroom the business games could be useful as a practical situation to choose university faculty. However, it wasverified that in other situations, those who participated were more motivated;
- It should become systematic and not only a moment of the school year.
- It is useful but lacks an important step: we should offer it to the whole classroom;
- The business games reveals more abilities than skills. The traditional methods do not make them emerge for example. Students show themselves by intelligent choices not based on knowledge.

Final discussion
- Students need to understand that being a manager implies a continuous decision-making that involves a degree of risk and an inevitable incompleteness of data. The business game helps students to choose for the future and not for the immediate.
- The game should be improved bringing out the fact that there is a process of socialization and consensus that is not visible from the game (could be done by one person and not by the team).
- It is required multidisciplinary: more teachers should be involved to develop a specialized business game.
- The business game has allowed some students to own skills they were not aware.
- The business game teaches students not to give up at the first difficulty (some groups get going, but after the second match, they give up). They have to understand that, to be an entrepreneur, you have to make continuous effort.

The P4G Business Game and underpinning approaches

By Zacharoula Smyrnaiou * and Evangelia Petropoulou **

Gaming experiences in virtual multi-user gaming environments as well as online mass games provide opportunities to study users "experience with technologies from innovative points of view" (Smyrnaiou & Kynigos, 2012). Providing close links between the game-play and the learning objectives and outcomes is a key challenge for using games effectively (Facer et al., 2004; Egenfeldt-Nielsen, 2007).

It is important to avoid the "chocolate-covered broccoli" design approach (Bruckman, 1999) where the game is used as a reward, separate to the learning task, since it separates joy from learning. Recent research on intrinsic integration between the game and its learning content (Habgood & Ainsworth, 2011; Kafai, 1996) proposes ways to motivate learners understand the learning task through play.

Additionally other games allow learners to apply knowledge in "hypothetical worlds that are increasingly a part of how we work and play" (Squire, 2006:19). Survey studies also suggest that game experiences are changing a generation's attitudes toward work and learning, even though they are largely overlooked by educators (Squire, 2006; Beck & Wade, 2004). Therefore this business game will exploit game-based learning as means to engage young people with learning about business, maths, science, etc.

The P4G Business Game "Manage your own company" is a simulation game between teams, where each team has the task of managing from a strategic point of view their own business competing with the other in a market. The business game simulates a market of manufacturing companies, which operate by transforming raw materials into finished products, and are in indirect competition for acquisition of scarce resources upstream, in the process of acquisition of raw materials from suppliers, and downstream, trying to sell finished products to customers. The rationale of the game lies on the users' training and guidance in the use of skills both quantitative and qualitative. The P4G business game is an online learning environment which acts as a replication and extension of the physical market world. However, the sophisticated interactive technology underpinning the game accommodates social and technical dimensions (player exposure to varying levels of social interaction and cognition, removal of time and space constraints, etc.) not always available in the physical world. It allows for user intervention and decision taking processes while it offers a specific and structured space where critical analysis of intertwined and complex information is necessary.

Following the business game objectives for entrepreneurial training, skill relevant acquisition and efficient communication and collaboration among the participant members, the following five variables are examined: (1) computer mediated communication (CMC), (2) feedback, (3) decision support, (4) collaboration and (5) debriefing. Computer-mediated communication has been proven to generate more alternatives with more equal participation among group members and the greater the interaction and exchange of information and ideas among team members, the greater the learning from the simulated environment (Adobor & Daneshfar, 2006). In addition, feedback is a very important element in a technological environment designed for learning purposes and in the business game context is perceived both as a decision support and motivational contributor. The decision support variable addresses both the embedded script that aims to guide the users and the mechanisms and tool functions that facilitate the interconnection among the provided or registered information and data. Collaboration addresses the group work facilities provided by the technological environment and their efficacy in enhancing interaction among the group members perceived either as competitors or team members (Thomas, 2006). Finally, following a meta-cognitive approach it is essential for tools to provide users with debriefing techniques and comparative (in terms of group performance) outcomes in order for users to develop self-improvement skills (Summers, 2004).

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The P4G Business game assessment system - The Conceptual Assessment Framework (CAF)

In our effort to design and implement an educational assessment approach that would be based on evidentiary arguments we adopted the Evidence-centered assessment design (ECD) (Mislevy, et al., 2003) as the most relevant and targeted approach to the P4G Business game learning objectives.

By Zacharoula Smyrnaiou and Evangelia Petropoulou

Evidentiary reasoning (Schum, 1994) and statistical modelling allow us to identify and specify the kinds of observations that are required in order to assess specific knowledge and skills we aim to develop in students (Glaser, Lesgold, & Lajoie, 1987 in Mislevy, et al., 2003) and are mostly efficient in cases of complex performances or when complex data processing is involved. Efficient assessment models should be tightly linked and informed by a set of interconnected factors such as the set inferences, the relevant observations that would ground them and the context for them to evoke.

The Design of the P4G Self-evaluation tool

The P4G self-evaluation tool was designed and informed regarding both literature review on competence classifications and specifications and empirical research data occurring from surveys conducted in all project member countries addressing three targeted groups (Output 2 – Initial Assessment): unemployed, students, teachers. As a result a) the inclusion of learning goals supported by the literature was validated, b) the adoption of a generic competence scheme was enhanced to include differences between countries and target groups and c) dimensions such as affective skills that had been neglected in previous research on entrepreneurial skills and corresponding training concepts have sprung up.

The P4G Self-evaluation tool supports the design and development of a serious business game morpheme that is based on the simulation-based assessment structure. The distinction between designing simulations for learning and designing simulations for assessment is that the former requires focusing on the features of situations that provoke the targeted knowledge and skills while the latter requires focusing on the knowledge and skills provoked by a specific situation and evaluate how they were provoked, what was the response, what were the results (Mislevy, 2011). This distinction necessitates the identification of principles and development of tools that differ from those required to merely build simulations (Melnick, 1996) although the rationale in designing both simulation approaches in certain design aspects seems to overlap (Mislevy, 2011). Assessment-based simulations have additional processes integrated that provide feedback about performance by evaluating examinees' capabilities, either in terms of overall proficiency or focusing on more specific aspects of knowledge and skill (Mislevy, 2011).

In addition, the creation of valid assessment in simulation environments requires expertise from disparate domains and exploitation of different approaches and strategies that would enable the acquisition and development of skills and competences considering the users' individual needs, expertise and cognitive background. The P4G consortium differentiated expertise is applied in the design of a shared framework that additionally considers the different cultural contexts that each country member brings. This way an-all inclusive and shared framework is adopted and we are enabled to track and examine the way different expertise fits in with others, further develop the P4G skills matrix which merges the different aspects addressed in the project and result with valuable and measurable data on the effectiveness of co-existence and interaction among different methodologies in terms of cognitive and skill development.

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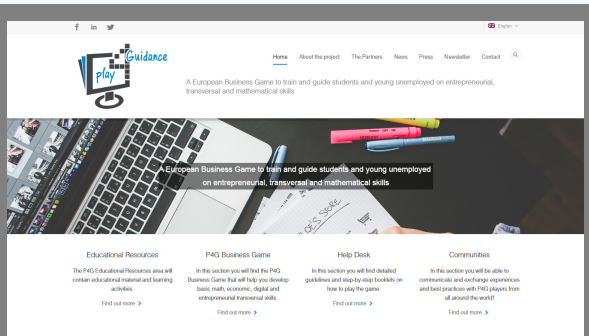
Don't forget to visit the updated P4G website, where you'll soon be able to experience to P4G Business Game , communicate and exchange experiences and best practices with P4G players from all around the world! gain access to rich educational material ,find detailed guidelines and step-by-step booklets on how to play the game.



P4G in the ENTREDU 2015 Conference

Science View's Menelaos Sotiriou presented the Play4Guidance project in the ENTREDU 2015 Conference that took place in Crete, Greece on May 8-9, 2015. The ENTREDU 2015 Conference focused on teachers' preparation for entrepreneurial education; current and future trends in innovation and entrepreneurship were presented; entrepreneurial education concepts, best practices, online resources, and school activities developed within the frameworks of leading European projects in the field. Participants had the opportunity to get a closer look to the world of innovation, entrepreneurship and entrepreneurial education and get in touch with significant EU funded projects such as Open Discovery Space – ODS, Quantum Spinoff, ENTERPRISE+, Inspiring Science Education-ISE and, of course P4G!

Open laboratories "Starting own business" by BIA

Within a transnational initiative for guidance of graduated and entrepreneurship, BIA carried out two workshops in two Bulgarian towns (25.03.2015, Smolyan, and 20.04.2015, Kardjali) predominantly for people involved in a project training promoting the entrepreneurship in the region BIA is implementing this project activity together with partners from Bulgaria and Greece, including Ministries of economy. The scope of these meetings overlapped with the P4G project objective to stimulate development of entrepreneurial skills and BIA availed of the opportunity to introduce the P4G project to more than 55 participants (young university graduates).

The P4G Focus Groups and Surveys

The P4G partnership had decided on applying a series of activities in order to identify and assess user needs in terms of entrepreneurial skills in the different countries of the partnership. This involved data collection by using both qualitative and quantitative research tools:
a) A survey of students, unemployed, employers, and agencies such as careers services and
b) Focus groups (drawn from the above) .

The focus groups were carried out with an aim to explore which competences are relevant / important for different target groups in each country. For each country three focus groups were run for unemployed, students and teachers representing key target groups.
The focus groups' schedules had a homogenous structure. However, due to the explorative nature of the workshop and the different individuals and organizations represented, the partners allowed the flexibility to focus on certain issues of relevance for the participants.

FPM in collaboration with **LIUC** has carried out 3 focus groups:

- 1 FG with stakeholders was carried out on the 25th of February 2015
- 1 FG with high school and university students was carried out on the 9th of March 2015
- 1 FG with unemployed people was carried out on the 31st of March

NKUA in collaboration with **Science View** has carried out 3 focus groups:

- 1 FG with unemployed was carried out on the 4th of February 2015
- 1 FG with university students was carried out on the 11th of March 2015
- 1 FG with teachers was carried out on the 25st of March

DCU carried out 3 Focus groups:

- FG 1 was carried out on 3rd March, 1-3pm, with industry professionals from SAP group (multinational) in Galway.
- FG 2 was carried out on 4th March, 10am-12pm, at Inishowen Partnership (unemployed centre) in Buncrana.
- FG 3 was carried out on 6th March, 11am-1pm, at a post-primary school (transition year) in Athlone.

BIA carried out three focus groups as follows:

- «Unemployed persons» focus group (7 participants) - 19.02.2015,
- «School and university students» focus group (12 participants) – 12.02.2015,
- Focus group for «Teachers, employees and labour exchange (job centre) specialists, company staff » (15 participants) – 12 and 25 Feb 2015

MEM has carried out 3 focus groups:

- 1 FG with unemployed was carried out on the 6th of March 2015
- 1 FG with students was carried out on the 6th of March 2015
- 1 FG with teachers was carried out on the 5st of March

Surveys were the assessment methodology following the focus groups and literature review respectively. Accordingly, the aims were to:
1) validate and enable to prioritize the competences for each target group to identify priorities for the business game and
2) identify missing competences and
3) provide suggestions towards the games development and implementation.
Surveys were realized in all partner countries and thus translated based on a common questionnaire.