Craigfelen Primary School

In short: Craigfelan is a primary school in Wales that uses entrepreneurial learning to motivate and inspire pupils, whilst ensuring that they make progress, by using Entrecomp for teaching and assessment.



Age group: 9-11 for pilot, now used at 4-11

Initial challenges: The decision was made to incorporate enterprise into the heart of the curriculum with an initial evaluation exercise being used to study pupil progress so that the children knew what they needed to develop or what their next step would be. The pupils needed support to see the relevance in what they were learning, and how this would link to their future lives.

What they did about it: At the start of the Autumn Term each class teacher picked three children and highlighted the skills the children had on the EntreComp Framework. They held a meeting with each child and assessed their work, using observation to make the judgement. After one term the three children were assessed again against the Entrecomp Framework. The results from this assessment was shared with the pupils and they worked on two areas during the next term before a further assessment was completed. The progress against the Entrecomp Framework was then compared to the pupil's end of Key Stage Levels and National Test scores.

Results: At each stage of the process the pupils became more confident in discussing what they had achieved and could also

suggest how they could improve. This had a very positive impact upon their motivation to learn and they could fully understand why they were completing the tasks given. The interview and discussion times were vital for this to work. The intervention was so successful that the process was rolled-out across the whole class of pupils to both engage pupils and to identify more able and talented pupils in the field of enterprise.

Relevance for entrepreneurial teaching: The EntreComp framework was specifically chosen as it offers the learners the opportunity to develop the skills to be entrepreneurial. Teachers found it easy to use and self-explanatory.

Applied assessment methods and tools: This process enables skills and competencies, beyond that of subject disciplines, to be formatively assessed and progress mapped. Performance assessment is key, as the students are assessed on real-life tasks. In discussion with the pupils about their learning, the students themselves are involved in reflective assessment. There are three assessment and subsequent feedback points.

Contact information: craigfelen.primary.school@swansea-edunet.gov.uk

Website: http://www.edunet.link/craigfelen/

Cometa Formazione (IT)

In short: The School-Enterprise Method (SEM), developed by Cometa Formazione, offers experiential learning as a means of connecting young people with the world of work and introducing a real job experience to the classroom which has a positive impact on students' attitudes to both work and study.

Age group: Students between 14 and 19; NEETs until 25.

Initial challenges: Cometa Formazione started in 2003 as a training centre focused on young people not in education, employment or training (NEETs). This educational challenge required the introduction of innovative learning approaches which led to the School-Enterprise Method (SEM). The SEM introduces a real job experience as a starting point for the whole learning process.

What they did about it: SEM is based on a "reality-based learning process". Teaching activities take place in workshops open to real customers, where every student learns by following an expert in the process of making a real product for the public. This method gathers soft, basic and technical skills into an integrated curriculum, based on students' project work. Thus the production process becomes the learning process: design thinking, project, production, evaluation, administration and promotion are the main areas. Workshop subject areas include: two cafeterias, one restaurant and one bakery (catering track); wood decoration, restoration and production of furniture labs (carpentry track); and, one fashion studio and a visual merchandising atelier (textile track).

Results: Several outcomes and impacts have been evidenced, including: 80% of participants gain a placement; 94% of dropouts usually conclude their training; and an average of 95% of students increase their soft skills. The SEM and the reality-based learning have already received international recognition, for example, the European Training Foundation (ETF) awarded the method as one of the 10 best European Program for Entrepreneurship (2016), and it has been included as a best practice in the Pact4Youth program (2017).

Relevance for entrepreneurial teaching: The objectives of the programme are to support the employability of young people. Young people are provided with training to develop their skills and apply them to produce goods and services for commercial sale. They are supported from composing the idea to transforming it into a commercial project or product. This condition allows the student to discover the passion and the spark that makes a person become an entrepreneur. It is the rediscovery of the value attributed to practical knowledge. On completion of the programme, young people have the chance to take up apprenticeships or start their own business.

Applied assessment methods and tools: The most relevant tools concern the assessment of the (soft and professional) skills developed by students during their training, both in school workshops and in companies. A specific didactic unit including several modules based on scenarios, focus groups and tests has been introduced to support students in planning, doing and evaluating their job experience. Cometa Research produces and shares scientific publications on these innovative tools and methods, which are available on request.

Contact information: Paolo Nardi, paolo.nardi@puntocometa.org

Website: https://www.cometaresearch.org; www.puntocometa.org

Colegio Dulce Nombre de Jesús, Dominicas Oviedo

In short: Colegio Dulce Nombre de Jesús is a K-12 publicly-funded private school located in Oviedo city centre (Asturias, Spain)



Age group: 3-18 yrs old

Initial challenges: Historically, Key-competence assessment was carried out by identifying specific learning outcomes in each subject area allegedly linked with the chosen key competence. Weighting factors were used to define the level of importance of competence-related learning outcomes and a final score of competence development was calculated summatively. Yet, the school felt this method was far from perfect so they decided to explore other options.

What they did about it: Encouraged by school leadership and with the support and guidance of an expert teacher, a team of teachers started shaping a whole-school approach to key-competence assessment. The challenge was to strike a balance between the desired state of things and what was possible and doable in a real classroom setting. Coordination across subject areas and school years was a key requirement when the roadmap was first drafted. The process unfolded in three steps:

1. Build on curricular learning outcomes and try to derive

a set of expected and observable behaviours as competence development indicators.
2. Organise indicators into a developmental learning progressions for each competence (across school years), and review.
3. Design appropriate assessment tools (rubrics, in this particular case)

Results: The school created common competence-level descriptors for each school year and designed rubrics for assessment.

Relevance for entrepreneurial teaching: This whole-school approach paves the way for a shared understanding of key competence development among teachers from different subject areas. The use of same descriptors and tools across the school results in a more coherent and integrated assessment of key competences.

Applied assessment methods and tools: Learning progressions, rubrics

Contact information: dirpedagogica-oviedo@fefcoll.org

Website: http://www.dominicasoviedo.com/

Björlandagården primary school

In short: This example is based on a primary school in Sweden that improved the feedback from students on their entrepreneurial learning processes by using the e-assessment tool LoopMe for formative assessment of entrepreneurial teaching.



Age group: Students were between 7-12 years old.

Initial challenges: Teaching is a profession with constant time pressure and the need to react to circumstances emerging in day-to-day practice. A lesson passes quickly, and many times students do not get a chance to express their thoughts on what works for them. A key communication challenge is how to follow each individual student's learning process and adapt accordingly, given the time constraints in teachers' daily work. All of these challenges are particularly difficult when applying entrepreneurial teaching.

What they did about it: The e-assessment tool LoopMe for formative assessment was implemented in the entire school. Each student could reflect on key learning events in their daily experiences at school. Teachers could follow student reflections in real-time, and chat with those students that provided information of particular importance to the efficiency of the entrepreneurial learning environment.

Results: Necessary changes to the learning environment could be carried out sooner when crucial information about things that did not work for students reached the teachers quicker and from more students. Challenges around dysfunctional teams could for example be resolved more quickly by communicating with students through the digital tool. Bullying instances could also be acted upon more swiftly. Private trustful dialogues could be held between the teacher and individual

students on the students' terms, instead of in a stressful environment full of classmates potentially over-hearing the conversation. Students trained their capacity to put words on their emotions and critical learning experiences in a better way than had been possible previously. The overall impression from participating teachers was that the digital tool helped the teachers in many of the most crucial tasks that they had to manage in related to taking care of their students in various ways, both in terms of regular teaching and more entrepreneurial teaching.

Relevance for entrepreneurial teaching: This example illustrates how e-assessment and formative assessment could help teachers in many of the challenges inherent in entrepreneurial teaching. Examples included keeping track of critical learning events, maintaining trustful dialogues with all students, supervising teamwork at a distance and reacting to unexpected deviations.

Applied assessment methods and tools: This is an example of applying assessment for learning, e-assessment, reflective assessment and self-assessment. This is also an example of applying the e-assessment tool LoopMe.

Contact information: Ulrica Skålberg, E-mail: ulrica.skalberg@vastrahisingen.goteborg.se

Website:
http://goteborg.se/wps/portal/enhetssida/bjorlandagarden-f-6

Begoñazpi Ikastola



In short: Begonazpi Ikastola is a primary and secondary school in the Basque Country which is renowned for its entrepreneurial education programs which aim to develop the abilities of its student body. The model for education adopted by the schoolis based on the “Zero Project” of Harvard University and avoidance of the use of exams.. An example of this methodology is the “Service-learning” for 4th grade students.

Age group: 14-16 years students.

Initial challenges: The main challenge for this school was to implement the “Teaching for understanding” philosophy of Harvard University, especially in relation to developing the students as people, including their intellectual development. Students are encouraged to become supportive and committed citizens, wherethe main emphasis is on students being at the service of their surrounding society, with projects that require the development of entrepreneurial skills (social entrepreneurship).

What they did about it: The school implemented the “Project Based Learning” model where, through social entrepreneurship models, the student body designs solutions to real local institutions and companies‘ challenges, forcing the students to work outside of the school.. All of this is framed within the teaching for understanding methodology of Harvard University alongside coaching, STEAM methodologies, and educative robotics, such as LEGO serious play.

Results: Since the inception of these projects, and adoption of learning and teaching methodologies that encourage entrepreneurship, the environment in the school and the motivation of the students has radically increased,

particularly with students who were previosuly disengaged.. The general impact on the students has been very positive.

Relevance for entrepreneurial teaching: This education model is an example of how the change from traditional education to one that encourages and assesses entrepreneurial abilities, through social entrepreneurship in this case, has a very positive impact on student motivation, self-confidence and self-efficiency.

Applied assessment methods and tools: Self and peer assessment, teaching for understanding, and e-evaluation (own and simple tools) models, are incorporated in the whole process, and the skills assessment forms part of the student's final grades.

Contact information: Merkat Bernaola. E-mail: ikastola@begonazpi.net
Website: http://www.begonazpi.org/

Alverno College (US)

In short: Alverno College is an independent, liberal arts college located in Milwaukee (US). Alverno College was selected as a National Institute for Learning Outcomes Assessment (NILOA) due to its innovative and long-standing assessment practices and its commitment to student-centered teaching. For over 40 years, Alverno College has led the way in competency-based curriculum design and the assessment-for-learning approach to education

Age group: 18 +.

Initial challenges: Alverno's unique approach to assessing student learning began in the early 1970s when faculty established eight core abilities: Communication, Analysis, Problem Solving, Valuing in Decision Making, Social Interaction, Developing a Global Perspective, Effective Citizenship and Aesthetic Engagement.

What they did about it: Abilities are woven into the curriculum across all disciplines and students must demonstrate proficiency at beginning and intermediate levels in all eight abilities, and at advanced levels in two of the eight. Students do not receive grades; faculty use rubrics to assess students' learning and provide detailed feedback on assignments. External assessors from business and professional communities help in assessing abilities not linked to a particular course (eg. Problem solving, social interaction)

Results: Alverno students identified four components of the model as particularly positive: explicitly stated learning outcomes, useful feedback, self-assessments and faculty who see the value and purpose of assessment. Students are better able to tell and show potential employers what they know and what they are able to do.

Relevance for entrepreneurial teaching: Each faculty member serves in one of eight Ability Departments, which focuses on implementation and assessment of one of the eight core abilities. This structure provides students with opportunities to demonstrate proficiency in each ability across disciplines and at beginning, intermediate and advanced levels. Assessment processes are collectively designed. Faculty provide students with a thoughtful and thorough analysis of their performance, how students have met the learning outcomes and how they align with Alverno's eight core abilities. The model creates a heavy workload for faculty and requires significant training and mentoring.

Applied assessment methods and tools: This is an example of applying assessment for learning, self-assessment, constructive alignment and feedback. The Alverno Model and Methods have been explained in depth in several publications and workshops such as the 41st Teaching for Competencies using Performance Assessment Workshop (https://www.alverno.edu/workshop/)

Contact information: assessmentcenter@alverno.edu

Website: https://www.alverno.edu/assessment/

Work-Integrated Assessment Model: COLLABORATE project

What it is: The Work-Integrated Assessment Model is a model that is applied to the design of assessments where the tasks and conditions are more closely aligned to what the user would experience within employment (work-integrated assessments).



How it works: The model focuses on six areas of assessment which together create the conditions under which students should develop both professional and academic skills during their studies. The six dimensions are Time, Audience, Problem/Data, Collaboration, Structure and Review. The model

is designed to be used individually or collaboratively between groups of academic staff which can also include students and employers.

Benefits: The model is a thinking tool to help the user or users reflect on how a current assessment might be marked on the six dimensions of the radar chart, and what changes might be made to move along. For teachers these dimensions give an overall indication of how a designed approach has worked in practice. Likewise students are prompted to reflect on their recent learning: ”How good are we at articulating academic and professional skills?”; “What skills have we been developing through this module?” and “How well can we describe our skills to employers?” The evaluation materials can be used separately as a stand-alone evaluation method for any module. Its physical approach encourages deep reflection and the ability to recognise and articulate skills developed.

Challenges: The full potential of the model will not be realised if the design of assessment tasks is approached as an individual endeavour rather than a collective one. The dimensions identified cut across modules/subjects and the adoption of a common strategy reinforces the capacity of students to reflect on and describe skills they have developed.

Relevance for entrepreneurial teaching: The model was designed and tested in a Higher Education setting but minor tweaks might make the protocol, dimensions and the tools in the evaluation package perfectly valid to ignite CPD conversations and classroom action around EE assessment of entrepreneurial skills in primary and secondary schools.

Applied assessment methods: Formative Assessment, Performance Assessment, Authentic Assessment

Examples from practice: A video of the evaluation materials used in practice can be viewed in the University of Exeter

project´s website alongside a short interview with Rachel Wheeler, voicing her thoughts about students' ability to recognise skills acquired through their studies.

Website https://as.exeter.ac.uk/aspire/aspectsofacademicpractice/assessmentandfeedback/work-integratedassessmentthecollaborateproject/aboutcollaborate/#d.en.485855

Skills Evaluation Tool



What it is: SET (Skills Evaluation Tool) is a potent platform which enables measurement, evaluation and development of entrepreneurial competences. It allows, in a flexible and professional way, the assessment of skills development in entrepreneurial programmes. Students are the real protagonists in evaluation. They reflect upon their own diagnosis and set improvement compromises which are monitored in cooperation with the teacher.

How it works: This platform offered by TKNIKA (Centre for Innovation in Vocational Training in the Basque Country) is interesting for any school as it allows for the adjustment of WHAT, WHO, WHEN AND HOW to evaluate entrepreneurial competences amongst students. It is based on a system of evaluative rubrics shown to users through a pleasant and easy to use interface allowing the visualisation of students'

progress in their competences through different graphs, as well as comparisons with the whole group.

Benefits: It allows the implementation at school-level of a flexible system. It establishes a co-evaluation system involving the student, project peers, and teachers in a quick and visual way. It enables each student to know which competences need improving and to acquire personal compromise, which is then monitored in his/her evolution, through different graphs and reports.

Challenges: It requires Internet connection to be used. In order to conduct measurements and evaluations there is also an App designed for Smartphones. The implementation and usage in the whole school entails preliminary (and hard) work of reflexion and configuration of the assessment model. One of the most important challenges is the choice of appropriate competences and levels of assessment.

Relevance for entrepreneurial teaching: SET offers a technical tool to all schools so that they can evaluate the level of development in entrepreneurial competences. It can be particularly useful in schools adopting active learning methodologies where students become the protagonists of their own learning.

Applied assessment methods: Owing to its power and personalisation capacity it offers a very interesting technical support to be implemented on a small or big scale. The configuration of participation weighting between self-assessment and co-assessment makes it an adaptable tool for the assessment of different competences and complexity levels. Its rubrics are oriented towards assessment of learning outcomes evidenced by student performance and linked to chosen competences and feedback provided by the teacher. SET is easy to use in the classroom thanks to the app designed for smartphones.

Examples from practice: SET has been implemented to facilitate the evaluation of entrepreneurial skills in Basque vocational education schools. It is used by 47 Vocational Education Schools, more than 3,500 students and 1,646 teachers in 142 different courses each year. It has also received good external evaluations and an agreement has recently been signed with the University of Chile in order that it be introduced into several of their programmes.

Self-report Questionnaires

What it is: Self-report questionnaires are the most common approach to assessing entrepreneurial or soft skills among both researchers and practitioners.



How it works: Questionnaires typically ask respondents to integrate numerous observations of thoughts, feelings, or behaviour over a specified period of time ranging from “at this moment” to “in general”. Respondents read the statement, search memories for relevant information, integrate whatever information comes to mind and translate it into one of the response options, finally, adding comments if asked (and motivated) to do so.

Benefits: Self-report questionnaires are cheap, quick, reliable, easy to administer and in many cases, remarkably predictive of objectively measured outcomes. Self-report questionnaires are arguably better suited than any other

measure for assessing internal psychological states, like feelings or belongings. People are relatively good at using questionnaires to communicate their true opinions as long as they in fact have answers for the questions asked and feel comfortable reporting accurately on them.

Challenges: Students, particularly those who are younger or lower-achieving, may misunderstand the statement or interpret terms differently (e.g. “rarely” may be what another respondent considers “often”). The fact that questionnaires require recalling past events in search for evidence provides a fertile ground for biases. Students may provide answers that are socially desirable but not accurate. There may be insensivity to short-term changes (consistency bias) and it is quite likely that the more competent students may be harder on themselves (reference bias), not to mention the possibility of “faking”, deliberately inflating or deflating scores.

Relevance for entrepreneurial teaching: Often, self-report questionnaires are used as low-stake diagnostic tools that set the baseline of skill development for individual students as well as their attitudes and intentions towards entrepreneurship. However, literature cautions against taking these diagnoses at face value due to their low reliability. In some cases, they are repeatedly administered over a period of time in order to track progress and support students in the process of skill development. Yet, it is unclear if existing questionnaires are good enough at capturing short-term changes and the quantity and quality of feedback is also an issue. The literature calls into question the validity of self-report questionnaires to measure program effects at the individual level (changes from pre-test to post-test) or comparing schools and/or programmes.

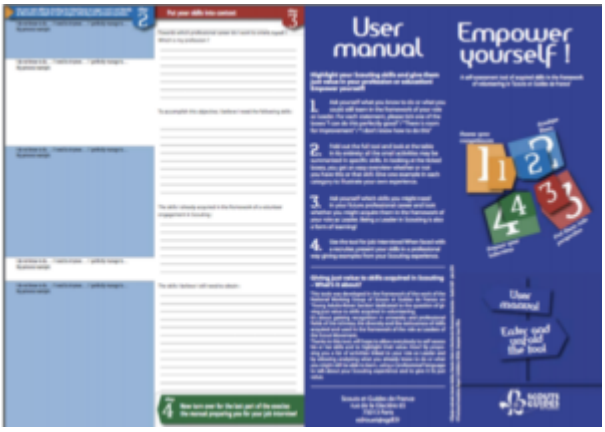
Applied assessment methods: Self-assessment, Formative Assessment, Summative Assessment.

Examples from practice: Entrepreneurial scans, skills audits

and profilers are popular among entrepreneurial educators. OctoSkills and the Enterprise Catalyst are a couple of examples of tools based on self-reporting surveys. The Measurement Tool for Entrepreneurship Education is a self-evaluation tool for teachers and educators developed by the University of Laaperanta.

See also: *Measurement Matters: Assessing Personal Qualities Other Than Cognitive Ability for Educational Purposes.*

Empower yourself



What it is: Empower yourself (original in French: Valorise toi) is a self-assessment tool of skills acquired in the framework of volunteering in the French scouts' movement ('Scouts et Guides de France'). It translates skills acquired through scouting and volunteering into language appropriate for the job market.

How it works: Empower yourself is a leaflet for young people making applications to their next level education or young job seekers, allowing them to 'translate' skills from volunteering into competences that apply to the job market. The simple leaflet breaks this process into four steps:

1. Scouts choose from a list of statements the experiences or activities they have completed, (e.g. 'I am aware of my responsibilities in my role as a leader of my unit /

group or as the camp chief'), and assess their level of strength for each activity. These are then clustered in a way that translates into competences that help in the job market, e.g. 'organisational skills', 'responsibility', 'sense of initiative', analytical skills', and so on;
2. Students are asked to illustrate the skills with personal examples;
3. They put the skills into context towards their chosen career;
4. A user manual prepares scouts for their job interview. Empower yourself is available in Czech, Danish, English, French, Polish, Serbian and Spanish.



Benefits: This simple reflection tool translates non-formal learning into employability skills. The method is simple and transferable to a wide range of environments and is low cost. The tool works within a structured and detailed skills framework and clearly identifies skills and experiences and how to translate this into the language of and skills for employment.

Challenges: As the tool is to be used offline (PDF for download only), no user identification or data collection is possible. Neither is an analysis of user skills/ responses included as part of the tool.

Relevance for entrepreneurial teaching: Empower yourself translates civic competences acquired through non-formal learning experiences into skills that are applicable to the job market. The method used to define the skills and translate them is applicable to a range of environments.

Applied assessment methods: Assessment of skills.

Examples from practice: According to case studies, Empower yourself has been used by over 30,000 young people in France. Feedback from employers and users is positive.