MANUAL 6

HOW TO EDUCATE SUCCESSFUL RURAL ENTREPRENEURS
ABOUT THIS SERIES

The SCHOOL IN A BOX Guide Series is designed as a ‘one-stop shop’ for anyone interested in establishing their own financially self-sufficient school.

The series is made up of nine individual manuals which between them cover all of the key areas which will need to be considered in detail in the creation of any Self-Sufficient School.

Each manual offers a step-by-step guide to building your understanding of key concepts and mastering a range of planning and management tools, as well as providing a wealth of case studies and real-life examples to illustrate both best practice and easily avoided pitfalls.

The full listing of manuals in the series is as follows:

CREDITS

The SCHOOL IN A BOX Guide Series represents the knowledge, experience and hard work of a dedicated team of authors and editors at Teach A Man To Fish and the Fundacion Paraguaya.

We would like to thank the following individuals specifically for their contributions to the series:

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Visit www.teachamantofish.org.uk and www.fundacionparaguaya.org.py for more information

THANKS

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1. INTRODUCTION

The constantly changing world we live in calls for us to update our knowledge and skills at every opportunity. Learning by doing is an innovative and dynamic teaching-learning method, and one that supports the idea that learning is developed through the constant practice of what is being learnt.

In educational practice, this method implies an intelligent management of subjects, flexibility and open mindedness from the educator.

There are many reasons for which a young person discontinues his or her studies: lack of financial means, parental unemployment; lack of communication at home; low self esteem; and lack of future perspective.

The best way to reverse this trend is to bring out the entrepreneurial side of students. Developing entrepreneurial skills helps young people to realize responsibility for their future and opportunities for a prosperous life ahead.

WHAT IS AN ENTREPRENEUR?

- An entrepreneur doesn’t wait for someone to present them with an opportunity, they believe in themselves and their project, and works to get ahead

- An entrepreneur is a person who takes risks, has initiative and creativity, and makes things happen. They do not ‘stand on the sidelines.’

- An entrepreneur applies their creative and innovative talent to start their own business or project or expand one that already exists.
2. BASE-LINE ASSESSMENT

“If you don’t know where you’re going you can be sure you’ll never get there – but if you don’t know where you’re starting from, you’re already lost!”

The objective of this chapter is to help you analyze how well prepared your school currently is for educating successful rural entrepreneurs – and identify the changes that will need to be made to improve it.

When you have finished reading this chapter you will be able to:

1. Conduct a SWOT analysis of education at your school
2. Use problem & solution trees to create plans for change
3. Revisit your School Education Plan to ensure it emphasizes entrepreneurship

Throughout Manual 6 of SCHOOL IN A BOX we will be looking at how to deliver an education that takes children from the poorest families where subsistence farming is the norm, and transforms them into successful rural entrepreneurs.

However to create the changes needed within your school to achieve this goal, you first need to take a cold hard look at the state of the education which you are currently offering, and at what the causes are of any current weaknesses.
EVALUATING THE CURRENT STATUS OF YOUR SCHOOL

EVALUATION TOOLS

Two useful tools for evaluating the current status of education provided by your school are the ‘SWOT analysis’, and ‘Problem & Solution Trees’.

Each of the tools require you to be honest with yourself about how well your school is performing – however, if used properly they can be extremely useful for simplifying and solving quite complex issues faced by a school.

**SWOT analysis**

SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. The analysis consists of making a list of the internal strengths and weaknesses of the group being studied; and of the opportunities and threats presented to this group by the external environment within which it operates.

As an example let’s look at the case of a girls’ boarding school, for which a training needs assessment was carried out.

The following table presents the results of a SWOT analysis conducted by the Santa Luisa Home for Girls on its training activities.

<table>
<thead>
<tr>
<th>Assessment Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
</tr>
<tr>
<td>- School values: including comradery, desire for self-improvement, and an openness to new ideas</td>
</tr>
<tr>
<td>- Infrastructure: classroom, five computers with internet, kitchen</td>
</tr>
<tr>
<td>- Girls with academic ability and motivation.</td>
</tr>
<tr>
<td>Girls with additional knowledge including cooking, sports, music.</td>
</tr>
<tr>
<td>National and international financial and technical support available.</td>
</tr>
<tr>
<td>- Support from the girls’ extended families</td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
</tr>
<tr>
<td>National and international financial and technical support available.</td>
</tr>
<tr>
<td>Long-term trend for reduced financial support from national government.</td>
</tr>
<tr>
<td>- Economic decline in the region may threaten girls’ attendance</td>
</tr>
</tbody>
</table>
Based on the information analyzed, ongoing financial constraints at the school appeared to be a major factor in restricting improvements in training. The suggested solution therefore was to take advantage of the short-term financial opportunities available to the school to put in place income generating activities – and the use these activities in the personal development of the girls in the school, including strengthening interpersonal and entrepreneurial skills.

Furthermore the analysis suggested that by teaching the girls skills which could contribute towards improved household income during vacations, the school might reduce the risk of dropout due to the deteriorating economic climate.

Suggested activities included; small business administration, IT services, catering, and hairdressing.

‘Problem’ and ‘Solution’ Trees
Another approach that can be very useful is to create a "problem tree" and a corresponding "solution tree" for each area or department, or where you see the process being necessary.

The "problem tree" is a diagram created to better understand a situation that you currently find unsatisfactory: for example the poor grades of some students or poor grades in general.

You write this problem in the middle of the tree, as in the example below, thus naming it as the main or central problem.

The branches of the tree which rise up represent the effects of this central problem – the most likely effect being to cause even more problems!

The roots, seen below the main problem, are its direct causes.

You can create as many levels of causes and effects of the problem as you see fit.

EXAMPLE OF A PROBLEM TREE
The next task is to convert this "problem tree" into objectives or "solution tree".

The first step for this task is to select the most pressing problem and turn it into an objective or solution. Next, continue changing all the problems into objectives and solutions, as in the example below:

**EXAMPLE OF A SOLUTION TREE**
In this way the objectives are developed directly from the problems you have identified.

The next step is to convert this information into a simple objectives table.

**OBJECTIVES TABLE**

This table is used to describe first level goals, indicators of progress towards these goals, verifiers of those achieved goals and potential obstacles you might face while trying to achieve the goals:

**Note:** Make sure you consider what the appropriate ‘time frame’ will be when creating your table - i.e. per semester, year or month.

**Overall Objective:** Students with high grades every academic year
NEXT STEPS

Now that you have evaluated the current status of your school and you have your objectives, the next step is to create your plan for achieving those objectives.

However, before moving on to the planning stage, remember that the evaluation process is not a one off. It should be a continual process that includes all members of the school and allows for constant improvement in the way your school works.

It is important to see the evaluation process:

<table>
<thead>
<tr>
<th>Specific Objectives</th>
<th>Goals targeted</th>
<th>Indicators of progress</th>
<th>Means of verification</th>
<th>Potential obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will complete their studies</td>
<td>All the students will pass to the next grade</td>
<td>Grades</td>
<td>Report cards</td>
<td>Family problems</td>
</tr>
<tr>
<td>Students are motivated to continue their studies</td>
<td>All students demonstrate, verbally or in writing, that they are motivated in school and continue studying</td>
<td>Verbal demonstrations, periodic interviews with parents, group and individual exercises</td>
<td>Documents recording the activities in the previous column</td>
<td>That the documents are not created to do the follow-up</td>
</tr>
</tbody>
</table>

**THE SCHOOL EDUCATION PLAN**

Identifying existing problems, and formulating viable solutions is only the first step along the road to creating a school for successful rural entrepreneurs.
To be effective your solutions will need to be incorporated into an action plan from which everyone involved can work. To avoid having multiple plans being used within the same school it makes sense to incorporate your planned changes within the School Education Plan (“SEP”).

The SEP is the educational equivalent of a business plan. It is a planning tool that serves to direct and articulate the management of the school as a whole, that is, the relationship between students, teachers and wider society.

It is likely that your school may already have a School Education Plan or an equivalent document. If not, now’s the time to make one!

Your school’s SEP should describe the range of objectives you wish to achieve and within this provide an answer the following questions:

**What type of school do I want to create?**
Our answer would be: A school that is self-sufficient, generates opportunities and is innovative in its approach.

**What type of students do I want to produce?**
Our answer would be: Students who are successful, entrepreneurial, critical, confident and who value their communities.

**What kind of teachers do I want in the classrooms?**
Our answer would be: Teachers who are innovative, motivated, with a true vocation for teaching and learning.

What would your answers be?

Keep in mind that an SEP is:

- A document created with the participation of the whole educational community, all the way from the directors to the students.
- A technical document to be put into practice.
- A document that can be reviewed, adapted and changed as needed
- A document that demonstrates a commitment to educational development and the improvement of quality of life for the students.
• A set of objectives showing what values the institution will uphold.

PREPARING FOR THE DEVELOPMENT OR RE-DEVELOPMENT OF THE SEP:

**First**, form a development team for the new SEP. Once you have all your group members, make sure there is a balance of voices and a balance of power amongst members, who will be teachers, students, administrators, parents, and other members of the educational community.

**Second**, evaluate the current state of the project by asking the following questions:

*What am I doing today that will contribute to achieving the proposed objectives of the SEP?*

*Which objectives have I achieved?*

*Who participated in achieving them and how did they participate?*

Review with your team the SWOT analysis that was undertaken in the first stage of the diagnosis. This will help you move on to the following stage, in which you develop the organization's objectives.

**Third**, you have the task of "dreaming" and translating this dream into the objectives and goals of the SEP. How can you convert these ‘dreams’ into realizable objectives?

**Fourth**, now that you have established the objectives of your SEP you can go ahead with its development or redevelopment. It is beyond the purposes of ‘School In A Box‘ to provide a template for the SEP, as many schools will already have their own established format. SEPs are also highly individual and vary greatly according to the situation of each school. If you would like further guidance on creating an SEP please get in touch with Teach A Man To Fish at info@teachamantofish.org.uk.

TO EDUCATE YOUNG ENTREPRENEURS IN A SUCCESSFUL MANNER IT WILL BE IMPORTANT TO CARRY OUT THE FOLLOWING ACTIVITIES:

• Carefully analyze the needs of the market to which you are directing the services of your institution, that is, the needs of young people in your area.
• Look into the possibility of forming teams, especially one that would lead the project and its auxiliary or operative teams, some that coordinate and supervise, others that implement. To do this, it is necessary to determine beforehand a clear purpose for each team and distribute functions and roles accordingly.

• Conduct a detailed survey at the community level to establish what qualities they would like their children to develop at school. Gaining an impression of what success means to the community may help improve the relevancy of your education programme.

• Gather the greatest possible amount of information about what an entrepreneur means to different community members. Focus groups, extended interviews and questionnaires can be a useful way of finding this out.

• It is important that local educational authorities are very familiar with the student entrepreneur” project that is being carried out. Excellent communication with these authorities will help ensure that progress is not slowed down at a later date. It may be worthwhile presenting them with the action plan, and to give them an opportunity to offer input.

• Make a calendar of activities for tasks over the coming 12 months.
Self Evaluation

1. In what ways would this diagnosis process aid the development of your own institution?

2. Create your own problems tree, and a matching objectives tree for your institution.
3. Create an objectives table to be used in the development, or redevelopment of your School Educational Plan.
3. THE ENTREPRENEURIAL TEACHER

The objective of this chapter is to provide you with an overall view of the entrepreneurial skills needed for your school.

By the end of this chapter you will be able to:
1.) Identify and develop your entrepreneurial skills
2.) How to incorporate entrepreneurship into the curriculum

It may seem strange to associate a teacher with entrepreneurship, but there are thousands of teachers across the world successfully applying entrepreneurial principles to their teaching work. This story will help explain the concept a little further:...
The Creative Attitude Puts an End to Complaining and Excuses

Years ago, a supervisor visited a primary school. In his run-through he observed something that strongly called his attention: a teacher was cowering behind his desk, the students creating great disorder; the scene was chaotic.

He decided to introduce himself:

- “Excuse me, I’m the shift supervisor...is there a problem?”
- “I’m overwhelmed sir, I don’t know what to do with these kids...I don’t have any posters, the Ministry doesn’t send me any teaching materials, I have nothing new to show them or tell them...”

The supervisor, who was a entrepreneurial teacher, saw a cork on the messy desk. He picked it up and with poise turned to the kids:

- “What is this?”
- “A cork, sir”...yelled the surprised students.
- “Good! Where do corks come from?”
- From bottles, sir. A machine puts it there...””, “from a cork tree...” “from the wood...”, the children responded excitedly.
- “And what can be made from wood?” the teacher continued, enthusiastically.
- “Chairs...a table...a boat...”
How many times have you found yourself in a situation like that of the story?

Possessing entrepreneurial qualities requires, more than anything, the desire for self-improvement and willpower. If a school is serious about introducing entrepreneurship into the education it provides, every teacher will need to be ‘on board’ with the vision and have the motivation to see it through.

The problems faced by the teacher in this story result from a combination of weakness of the education system. It is worth looking at what these weaknesses are, so that the entrepreneurial education system put in its place can be designed to address these weaknesses. We could summarize the weaknesses of the education system as the following:

<table>
<thead>
<tr>
<th>Actors</th>
<th>Weaknesses</th>
</tr>
</thead>
</table>

Excerpt from the book: *Stories For Intelligent People (Cuentos para regalar a personas inteligentes)* by the Argentine author Enrique Mariscal
It is entrepreneurial teachers, like the supervisor mentioned in the story, that are best placed to addressing some of the weaknesses identified above.

SO WHAT ARE THE CHARACTERISTICS OF AN ‘ENTREPRENEURIAL TEACHER’?

- Self-assured
- Tenacious
- Responsible
- Takes initiative
- Perseveres in face of adversity
- Acts with passion
- Achieves his/her goals
• Invites challenge
• Seeks new skills
• Approaches life and work with a positive attitude
• Recognizes the need to transmit the entrepreneurial culture in all areas of education.

YOU MUST DO TWO THINGS TO BECOME AN ENTREPRENEURIAL TEACHER:

• Overcome your own negative tendencies
• Engage in the outside world

Overcoming your own negative tendencies

• Fear of failure: is a normal feeling. It shouldn’t become an obstacle to taking risks. Losing inspires winners but ruins losers.

• Insecurity: It takes great courage not to let pessimistic and alarmist comments generate doubts and fears.

• Laziness: Action always triumphs over inaction!

• Arrogance: Acts as a shield for covering up our ignorance. An entrepreneur needs to be flexible and know their limitations so they can work to improve themselves.

Engaging in the outside world:

• Looking for inspiration from real examples of entrepreneurship in your local area.
• Create contact with someone who is already a successful entrepreneur.

• Invest in your own training and self improvement.
• Learn from the stories of the other entrepreneurial teachers.
• Think big and don’t be afraid to dream, the world of ideas and reality come together in the entrepreneur.
• Actively seek out opportunities, check their viability and draw up a workable road map.

INCORPORATING ENTREPRENEURSHIP INTO THE TEACHER’S ANNUAL PLAN
One of the critical elements of bringing an entrepreneurial approach into your school is to bring entrepreneurship into the teaching programme. This will involve bringing school staff together and developing a new program of studies that emphasizes entrepreneurship without neglecting the formal requirements of the curriculum.

It is important to emphasize that entrepreneurial education does not replace the core curriculum but is used to complement it and increase its educational impact.

You can incorporate entrepreneurship into any part of the formal curriculum, let’s use the ‘Statistics’ component of the Mathematics class as an example:

The following activities will be incorporated into the teaching of statistics;

I. **Market survey statistics**: For homework students do market research tasks. For example students visit at least three different vegetable vendors and at each vendor find out how much they sell 3 different vegetable types for per kg. During the following class students bring their data together and create statistics showing how prices for these three vegetables differs between neighborhoods and villages and how the price compares per kg between vegetable types.

II. **School enterprise statistics**: For example, students calculate percentage profitability between different school enterprises, by using income and expenditure ratios.

III. **Educational achievement statistics**: Students analyze their own academic results between different years/semesters, seeing how their performance is improving or declining in percentage terms.

A Teacher’s Annual Plan will be useful in incorporating entrepreneurial education into your current curriculum. Below you can find a template and first line example that may help in the design of your annual plan,
<table>
<thead>
<tr>
<th>Nº</th>
<th>Date</th>
<th>Unit</th>
<th>Learning Objectives</th>
<th>Entrepreneurial Education</th>
</tr>
</thead>
</table>
| 1  | Feb 15th-March 15th | Statistics | 1. Understanding of Statistics in real life situations  
2. Ability to apply statistical techniques across a range of data types  
3. Ability to identify statistical errors | Students analyse:  
1. Market Research Statistics  
2. School Enterprise Statistics  
3. Personal Academic Progress Statistics |
|    |      |            |                                                                                      |                                                                  |
| 2  |      |            |                                                                                      |                                                                  |
| 3  |      |            |                                                                                      |                                                                  |
|    |      |            |                                                                                      |                                                                  |
Self Evaluation

1. List 3 examples of how teachers at your school have taken an entrepreneurial approach to teaching.

2. What entrepreneurial characteristics do you possess and which do you need to develop to achieve your objectives?

3. Create a ‘Teachers Annual Plan’ and how you could incorporate ‘entrepreneurial education’ into the subjects you teach, breaking it down into units. For example if you are a Mathematics teacher, units may be Statistics, Geometry, Formulas etc.

<table>
<thead>
<tr>
<th>Unit Nº</th>
<th>Date</th>
<th>Unit</th>
<th>Learning Objectives</th>
<th>Entrepreneurial Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<td>2</td>
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<td>3</td>
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</tr>
</tbody>
</table>
4. COMPETENCY BASED EDUCATION

The objective of this chapter is to learn about the benefits of competency based education and how it can be applied in a school setting.

When you finish this chapter you will be able to:

Create a teaching programme that emphasizes the development of both practical and academic skills to help inform successful, entrepreneurial and competent students.

WHAT ARE COMPETENCIES?

Capacities or abilities that relate directly to a given job or work function.

HOW DO WE CREATE COMPETENCIES?

Before creating competencies we should first conduct a functional analysis. The methodology consists in a study that reconstructs the competencies that will allow workers to perform a determined job competently.

Once you have gathered all the information it will be useful for you to make a functional map, similar to the one that appears below:
EXAMPLE OF A FUNCTIONAL MAP FOR A VEGETABLE FARM ASSISTANT

Functions

<table>
<thead>
<tr>
<th>Key purpose:</th>
<th>Prepare and have ready the tools equipment, and primary materials, according to a production schedule.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assist in preparation, planting and harvesting activities</td>
</tr>
<tr>
<td></td>
<td>Keep work areas and implements organized and supervised.</td>
</tr>
</tbody>
</table>

Competencies can be described as being ‘Basic’, ‘Generic’ and ‘Specific’. For example, in the vocational educational field we can consider:

<table>
<thead>
<tr>
<th>Basic Competencies</th>
<th>Generic Competencies</th>
<th>Specific Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>Teamwork</td>
<td>Ability to use commercial standard farm tools</td>
</tr>
<tr>
<td>Reading/writing</td>
<td>Planning skills</td>
<td>Ability to update farm record books.</td>
</tr>
<tr>
<td></td>
<td>Organisational skills</td>
<td></td>
</tr>
</tbody>
</table>

*Basic competencies:* are those associated with fundamental knowledge. They are generally acquired through basic education and allow for job entry, for example abilities for reading and writing, oral communication and calculus.
**Generic competencies**: relate to the behavior and attitudes or particular work environments, for example capacity for teamwork, ability to negotiate and plan.

**Specific competencies**: relate to the technical aspects directly linked with an occupation that are not easily transferred to other work contexts, for example operation of specialized machinery.

A competency is composed of three elements:

1. Knowledge
2. Ability
3. Attitude

In the example below knowledge, ability and attitude come together to form a competency, in this case the competency to evaluate soil-plant-water relationships for vegetable production.

**Competency: Evaluate soil-plant-water relationships for vegetable production**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Abilities</th>
<th>Attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Crop water requirements</td>
<td>- Carrying out practical soil-plant-water relationship tests.</td>
<td>- Commitment to thorough and rigorous evaluation procedures.</td>
</tr>
<tr>
<td>- Evapotranspiration measurements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Breaking down what a competency is made up of will help in planning how to teach the competency effectively. To apply this method to your whole teaching programme it may be worth taking some time to list the competencies that you are looking to develop in your students.
One of the best ways to do this is to create a competency based education programme for each discipline you are teaching. In the example below we look at the discipline of dairy farming.

<table>
<thead>
<tr>
<th>Specific competencies of the dairy</th>
<th>Capacities</th>
<th>Activities</th>
<th>Frequency</th>
<th>Physical Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpret laws and biological principles in the development of animal species.</td>
<td>Identify the current situation of milk production in the region and the factors that influence the milk production.</td>
<td>Maintain clean and hygienic conditions in the milking corral.</td>
<td>Daily, before each milking</td>
<td>Hygienic implements for the corral</td>
</tr>
<tr>
<td>Identify the interaction between natural physical factors and the animals in balance with the environment.</td>
<td>Associate climatic phenomena with milk production.</td>
<td>Clean and organize the milking machine and maintain it in hygienic conditions.</td>
<td>Daily, before each milking.</td>
<td>Cleaning Implements</td>
</tr>
<tr>
<td>Chose different production and management techniques for distinct categories of animals according to their breed, productive stage, and use.</td>
<td>Classify breeds of dairy cows according to their zoological characteristics.</td>
<td>Take care to maintain the habitual position of each cow in the milking stalls.</td>
<td>In each milking</td>
<td>Milking corral</td>
</tr>
<tr>
<td>Employ techniques of sanitary management.</td>
<td>Plan, construct and repair simple buildings and infrastructure used for dairy production.</td>
<td>Fill the feeders with the ration of prepared feed that corresponds to each animal according to its production.</td>
<td>Daily</td>
<td>Animal feed</td>
</tr>
<tr>
<td>Fulfill the production task of administering concentrated feed and leguminous materials according to the productive stage of the animal and its use.</td>
<td>Identify the anatomy and physiology of the mammary glands.</td>
<td>Control the quantity and quality of green forage placed in the spaces between the feeders.</td>
<td>Daily, before bringing the cows into the milking corral.</td>
<td>Feeders</td>
</tr>
</tbody>
</table>
Self Evaluation

1. Complete a Knowledge, Abilities and Attitudes set for an activity relevant to the lives of your students. This doesn’t necessarily have to be agriculturally based.

**COMPETENCY:**

- Knowledge
  - .................
  - .................
  - .................

- Abilities
  - .................
  - .................

- Attitudes
  - .................
  - .................
2. Complete a competency plan for a practical subject that is taught at your school.

<table>
<thead>
<tr>
<th>Specific competencies of</th>
<th>Capacities</th>
<th>Activities</th>
<th>Frequency</th>
<th>Physical Requirements</th>
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EVALUATION OF COMPETENCY

Keep in mind that:

- Evaluation should not only consider what the student knows but also what he or she does with this knowledge in different contexts.

Benefits of creating evaluation criteria:

- They allow you to develop more effective teaching material such as learning guides and exercises linked with the learning criteria.
- They allow you to create tests that are more “fair”: the student knows ahead of time the areas in which he or she will be evaluated.
- They clearly determine what is desired of students and provide a path to better studying and obtaining better results.

What are the indications that your students are learning, or are at least understanding explanations? Generally educators look for the following:

- Students are watching attentively …
- Students are not yawning …
- They are taking notes...
- They don’t talk while you talking ...
- … They definitely aren’t sleeping!...

The creation of Evaluation Criteria involves specifying what to evaluate, and using indicators that are decided in conjunction with students, so that evaluation standards are in line with student aspirations and so that students are more responsive to the evaluation process.
FOR EXAMPLE

COMPETENCY: “Prepare animal feed according to the animal’s requirements.”

CRITERIA OF EVALUATION: Ability to store animal rations and distribute them in a secure and hygienic manner.

How will I know if the student has really learned?

- The student measures out the rations according to the feeding plan.
- The student distributes and controls the feed according to the type and requirements of the animal, ensuring health and safety standards are adhered to at all times.
- The student maintains the feeders in a hygienic condition and maintains a clean environment for the animals.

In an evaluation process, after defining the evaluation criteria, the evaluator should select indicators and proof, that is, allow him or her to decide whether or not the established criteria were reached.

INDICATORS AND PROOF

Example: Maintaining the hygiene of the feeders and maintaining a clean environment for the animals.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Proof</th>
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<tbody>
<tr>
<td>Utilizes cleaning equipment.</td>
<td>Cleaning equipment used correctly</td>
</tr>
<tr>
<td>Prepares the cleaning solution following the</td>
<td>Solution is correctly prepared</td>
</tr>
<tr>
<td>measurement called for by the manual.</td>
<td></td>
</tr>
<tr>
<td>Cleans the animal stall according to hygiene</td>
<td>The animal stall is clean and in a sanitary</td>
</tr>
<tr>
<td>specifications</td>
<td>condition</td>
</tr>
</tbody>
</table>
Keep in mind that:

Indicators and proof are key in assessing whether students are progressing or not, with respect to the evaluation criteria.

Feeding back into the learning process

The evaluation process isn’t over until feedback has been transmitted to the students. This allows students to detect their progress and difficulties, and allows teachers to plan new learning activities.

Self evaluation

Now you should create the evaluation criteria for the competency you have created, along with potential indicators and proof.

**CRITERIA:**

<table>
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<tr>
<th>Indicators</th>
<th>Proof</th>
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6. LEARNING BY DOING & EARNING

LEARNING BY DOING

The following are principles of the Learning by Doing method:

- The curriculum should be relevant to the student’s environment.
- Students learn best through the application of knowledge and skills in practical activities.
- These activities give students opportunities to practice their leadership and critical thinking skills.
- Teachers are most successful when they utilize a variety of teaching methods and are flexible in their teaching approach.
- The involvement of the community and mentors helps demonstrate the connection between what is being taught and real life.
- Graduates of ‘Learning by doing’ are more attractive to prospective employers as their skills can be more directly linked to the needs of the workplace.
- All school staff demonstrate their entrepreneurial skills by running ‘Learning by Doing’ programmes, helping them lead and educate by example.

LEARNING BY EARNING

What are the aims of ‘Learning by earning’?

To encourage students to:
• be architects of their destiny

• exercise leadership

• develop self-esteem

• form clear objectives for themselves

• pursue specific and challenging goals

• act ethically to achieve their goals

• take calculated risks.

• develop perseverance

• think big

• trust in themselves

LEARNING BY DOING & EARNING

Learning by doing in itself is an excellent way to learn practical skills, but how can it be used to develop entrepreneurial skills? Learning by doing & earning means that students learn entrepreneurship by running both the practical and business side of school based businesses, with supervision, and generating real revenue.

Involving young people in business helps them to connect them with the society around them and increases their sense of social responsibility. Being able to see a tangible reward for their efforts in the form of income is highly motivating and helps develop a strong, self-sufficient attitude.

This self sufficient attitude will help young people expand and develop their family or non-family business in the future and make a positive contribution to their community.

So how can you organize students to manage on school enterprises? The experience of the Fundacion Paraguaya suggests that student co-operatives are an effective way of making
sure that school based businesses fulfill an educational and income generating function at the same time.

CREATING STUDENT CO-OPERATIVES

Since 2004, The San Francisco Agricultural School in Paraguay has used the model of student co-operatives to help students learn all the theoretical and practical aspects of running rural businesses. The co-operative is directed and organized totally by the students, empowering them and installing them with confidence for the future.

Student co-operatives maximize the potential of the ‘learning by doing’ method. Students at The San Francisco Agricultural School have used their co-operative to build a farm and organize a livestock production unit and have taken care of all the legal and administrative requirements that come with it.

One element that has been critical to the success of this co-operative is mentoring from the cooperative, business, and social sectors. Gaining community support will strengthen any student co-operative or enterprise and allow students to benefit from others’ experience.

<table>
<thead>
<tr>
<th>Purpose of Student Co-operatives</th>
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<tbody>
<tr>
<td>• To find shared solutions to shared problems, having cooperation and solidarity as work philosophies, and counting on individual effort and mutual help.</td>
</tr>
<tr>
<td>• To strengthen each member of the co-operative</td>
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</tbody>
</table>

THE COOPTA COOPERATIVE

This is a cooperative formed by third-year students at The San Francisco Agricultural School.
Becoming a member of this cooperative has allowed students to get real-life experience of what working in a cooperative is like. They perform pre-assembly activities, put together reports, have meetings, elect officials, create support committees for the cooperative’s different activities, choose the products and services that they will offer the market, organizational policies and perform other activities that are necessary for the smooth functioning of the cooperative.

This is a brief summary of how the Coopta cooperative is organized:

**Organization:** The cooperative business is self-organizing; students elect their own authorities.

**Authorities**
- General Assembly
- Board of Directors
- Monitoring committee
- Electoral committee
- Auxiliary committees
- Administration of the Cooperative

Students fulfill roles and functions based on Paraguayan Cooperative Law. For each of the productive activities they look to develop, they draw up a business plan.

**Surplus:** At the end of the year the surplus that has been generated through the activities of the cooperative is distributed and the organization is transferred to the next group of third-year students.
Self Evaluation

1. Think of a time when you incorporated ‘Learning by doing in your teaching. How many of the above factors applied to your teaching programme? How could you have incorporated the other elements of ‘Learning by Doing’ as described above?

2. Draw out an outline structure of a student co-operative for a business based at your school. This can be a pre-existing school business or one planned for the future.
BIBLIOGRAPHY
