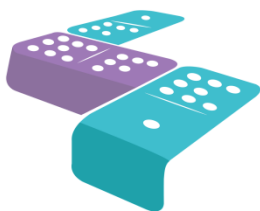

03 TRAINING CURRICULUM

Educator Guide

**BEST Institut für berufsbezogene
Weiterbildung und
Personaltraining GmbH**

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FEFE
Financial
Education
for Future
Entrepreneurs



Erasmus+

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1. Introduction

FEFE is a cross-sectoral co-operation project (<http://fefeproject.eu/>) between organisations from UK, Spain, Cyprus and Austria, which aims to contribute to development of the financial literacy and entrepreneurial mind-sets of learners across VET (Vocational education and training) and HE (Higher education) contexts. The central feature of the project is the development and implementation of a digital ‘serious game’ (a game the primary purpose of which is learning/training) which is freely available as an Online Education Resource (OER) accessible via mobile devices.

Through FEFE, learners will develop key skills required of entrepreneurs: the ability to make better financial decisions, be better able to understand and access alternative sources of finance and be more willing to trade across international boundaries. Developing these skills will encourage more learners to become entrepreneurs and will enable them to grow their own enterprises more effectively. These skills will also make learners more employable generally, and will enable them to contribute more effectively to the growth of any enterprise in which they are employed.

The FEFE project has two main outputs to support the development of accounting and finance skills of learners: 1. FEFE mobile digital Game for use on mobile phones (‘The Game’); 2. Country Guides, which provide information on setting up and running a business in Austria, Cyprus, Spain and the UK.

Both outputs can be utilized as stand-alone self-directed learning tools by learners, but also as a supporting learning material for complementing regular learning opportunities provided in VET and HE contexts. The outputs reflect both the business environment in both national and international contexts. In addition to the two main outputs, the project partners set-up a Social Learning Platform (<https://fefe.iberia.es:4572/login>) for learners and educators, which promotes peer learning among learners from different countries and fosters exchange of good practices among educators.

This document highlights the learning outcomes embedded in The FEFE game and provides guidelines on the utilization of The Game, Country Guides and Social Learning Platform (‘SLP’) by educators in both HE and VET contexts.

The outputs and the SLP are also relevant to anyone wishing to develop their financial literacy for business, including entrepreneurs and business managers.

2. FEFE Game Curriculum - Learning Outcomes

The FEFE project is introducing a new “serious” mobile game for learners in VET and HE contexts aspiring to improve their financial literacy. The Game is perceived as both a self-directed learning tool and also a complementary resource to support regular classroom teaching.

The current chapter provides a list of learning outcomes (LOs) that can be achieved by learners through playing the FEFE Game.

The list of learning outcomes provides educators with clear indications as to the areas where The Game complements their current curriculum in financial literacy. For learners, the learning outcomes provide a clear indication as to the areas of knowledge, skills and competences they can advance through by engaging with The Game.

The framework is developed utilizing the approach to writing learning outcomes promoted by European Union through the European Qualification Framework (EQF) and a recent European handbook¹, published by CEDEFOP on defining, writing and applying learning outcomes. Using the ‘knowledge, skills and competences’ classification in developing the list of FEFE learning outcomes means that they are widely applicable across different learning contexts and systems across Europe.

The learning outcomes and related topics are presented separately for each Level of The Game to better visualise the specific expected results to be achieved at each stage of learning. Topics (areas of knowledge) covered by each Level are attached to further enhance teachers and trainers that will embed The FEFE Game, Country Guides and Social Learning Platform.

¹ <http://www.cedefop.europa.eu/en/publications-and-resources/publications/4156>

FEFE Game: Learning outcomes - Level 0

In Level 0 of the FEFE Game the player takes the role of a sole trader **Trainee** who needs to take decisions with regard to number of units to be purchased and number of sales staff to be employed. He/she will have the financial objective of ending their first year of trading with a positive cash balance.

The main topics to be covered in this Level are: *Statement of profit or loss; Statement of financial position; Cash transactions; Drawings; Accruals; Personal tax; General ledger*².

The Level provides a set of basic knowledge, skills and competences, which are summarised in the table below. At the end of this Level, players (learners) will be able to:

	Learning outcome: knowledge (k), skills (s), competences (c)	k	s	c
1.	name and describe basic financial and business management jargon and terminology typical for a sole trader business	x		
2.	identify and list basic the principles and operations in bookkeeping applicable to the context of a sole trader business ²	x		
3.	identify and list the basic principles and operations in preparing monthly financial statements applicable to the context of a sole trader business; ² <small>Error! Marcador no definido.</small>	x		
4.	understand the financial requirements of setting up a new business	x		
5.	identify and describe different types of business events and circumstances in the context of a sole trader business	x		
6.	distinguish between personal and business finance	x		
7.	utilize basic financial and business management jargon		X	
8.	analyse and interpret basic events and circumstances emerging from the business activity of a sole trader business		X	
9.	monitor the main business activities and take basic corrective actions		X	
10.	record ² and review a sole trader business' transactions		X	
11.	review financial statements on a monthly and yearly basis of a sole trader business' activities		X	
12.	plan the short-term development of sole trader business activity			x
13.	exercise financial management in compliance with relevant standards			x

² This learning outcome can be expected only if the learner playing the Game has chosen 'manual bookkeeping' mode.

14.	take autonomous and responsible business management decisions leading to revenue and profit			x
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FEFE Game: Learning outcomes - Level 1

In Level 1 of the FEFE Game the player takes the role of a sole trader **Apprentice** who needs to take decisions with regard to number of units to be purchased and number of sales staff to be employed. He/she will have the financial objective of achieving a certain amount of **Revenue**.

The main topics to be covered in this Level upgrade on the ones from Level 0 adding: *Non-current asset register³ and Tangible non-current assets and depreciation.*

The Level re-enforces the same basic set of basic knowledge, skills and competences covered at Level 0.

³ This learning outcome can be expected only if the learner playing the Game has chosen 'manual bookkeeping' mode.

FEFE Game: Learning outcomes - Level 2

In Level 2 of the FEFE Game the player takes the role of a sole trader **Technician** (Intermediate learner), who needs to take decisions with regard to the number of units to be purchased and number of sales staff to be employed. He/she will have the financial objective of achieving a certain amount of **Profit**.

The main topics to be covered in this Level upgrade on the ones from Level 1 adding: *Metrics and ratios; Credit transactions; Prepayments; Loans; Inventory accounting.*

The Level provides a set of basic and advanced knowledge, skills and competences, which are summarised in the table below. At the end of this Level, players (learners) will be able to:

	Learning outcome: knowledge (k), skills (s), competences (c)	k	s	C
1.	name and describe advanced financial and business management jargon and terminology typical for a sole trader business	x		
2.	identify and list advanced principles and operations in bookkeeping applicable to the context of a sole trader business ⁴	x		
3.	identify and list advanced principles and operations in preparing monthly financial statements applicable to the context of a sole trader business ⁴	x		
4.	understand the financial requirements of setting up a new business	x		
5.	identify and describe different types of business events and circumstances in the context of a sole trader business	x		
6.	distinguish between personal and business finance	x		
7.	utilize advanced financial and business management jargon		x	
8.	analyse and interpret a wide range of events and circumstances emerging from the business activity of a sole trader business		x	
9.	monitor main business activities and take advanced corrective actions		x	
10.	record ⁴ and review a sole trader business' transactions		x	
11.	review financial statements on a monthly an yearly basis of a sole trader business' activities		x	
12.	plan mid-term development of a sole trader business' activity			x

⁴ This learning outcome can be expected only if the learner playing the Game has chosen 'manual bookkeeping' mode

13.	ensure proper management of potential risks in business and financial activities taken			x
14.	integrate ethical decision making in business and financial management			x
15.	anticipate the business' future financial needs under alternative scenarios			x
16.	take autonomous and responsible business management decisions leading to revenue and profit			x

FEFE Game: Learning outcomes - Level 3

In Level 3 of the FEFE Game the player takes the role of an **owner and manager of a limited liability company** (Master learner), who needs to continue taking decisions with regard to number of units to be purchased and number of sale staff to be employed. In addition, he/she will have to take decisions whether to purchase new stores and how to finance these new stores. He/she will have the financial objective of achieving a certain percentage of **Return on Capital Employed**.

The main topics to be covered in this Level integrate all previously addressed in Levels 1 and 2 and add: *Statement of cash flows; Share issues; Intangible assets and amortisation; Dividends; Company taxation; Bad debts; Provisions; Capitalise versus expense decisions; Financing choices; Credit periods with customers and suppliers.*

The Level provides a set of advanced knowledge, skills and competences, which are summarised in the table below. At the end of this Level, players (learners) will be able to:

	Learning outcome: knowledge (k), skills (s), competences (c)	k	s	c
1.	name and describe advanced financial and business management jargon and terminology typical for a limited liability company	x		
2.	identify and list advanced principles and operations in bookkeeping applicable to the context of a limited liability company ⁵	x		
3.	identify and list advanced principles and operations in preparing monthly financial statements applicable to the context of a limited liability company ⁵	x		
4.	understand the decision-making process of finance providers	x		
5.	understand the financial requirements of setting up a new business	x		

⁵ This learning outcome can be expected only if the learner playing the Game has chosen 'manual bookkeeping' mode

6.	identify and describe different types of business events and circumstances in a limited liability company's context	x		
7.	distinguish between personal and business finance	x		
8.	identify and name alternative sources of finance	x		
9.	utilize advanced financial and business management jargon		x	
10.	utilize alternative sources of finance		x	
11.	analyse and interpret wide range of events and circumstances emerging from the business activity of a limited liability company		x	
12.	monitor the main business activities and take advanced corrective actions		x	
13.	record ⁶ and review a limited liability company's business' transactions		x	
14.	review financial statements on a monthly and yearly basis of a limited liability company business' activities		x	
15.	ensure proper management of potential risks in business and financial activities taken			X
16.	integrate ethical decision making in business and financial management			X
17.	anticipate the business' future financial needs under alternative scenarios			X
18.	relate financial needs to a business' regulatory and fiscal framework			X
19.	take autonomous and responsible business management decisions leading to return on capital			X

⁶ This learning outcome can be expected only if the learner playing the Game has chosen 'manual bookkeeping' mode

3. FEFE Methodological Guidelines for Teachers and Trainers

As highlighted above, the FEFE project has produced three outputs that can be relevant and complementary for regular training activities in the field of improving financial literacy, i.e. The Game, Country Guides and social learning platform. In this chapter, a set of guidelines (ideas) has been provided for teachers and trainers interested in using these outputs in their work. The provided ideas are considered as a starting point, and can be built upon by each educator in the light of the specific required learning objectives and their own national context.

FEFE Game Applications

The FEFE Game (see, Annex 1 for full description) is a flexible learning and teaching resource, which can be used for specialist and non-specialist learners, inside or outside of the classroom and for formative or summative purposes. Being a digital mobile app, the FEFE Game can be played anywhere.

In the classroom, learners could be set the challenge of playing the FEFE Game for (say, for example) 20 minutes followed by a tutor-led discussion of issues arising. Learners could be asked to explain their responses to particular Events, which have occurred during the play. Learners can be encouraged to take screen shots of their business' financial statements at the end of each year and then use these to prepare their own electronic records for example using Excel.

Outside the classroom, learners could be asked to supplement their classroom learning on a particular topic by completing a certain stage of the FEFE Game by a particular deadline (for example, in advance of the following week's class).

Target group's specific applications
When using The FEFE Game with <i>accounting and finance specialist learners</i> , it is recommended that these type of learners are instructed to complete the Game with bookkeeping set to 'manual mode', which means learners will be required to identify the debit and credit entries for transactions.
When using The Game with <i>non-specialists learners</i> , it would be advised to instruct learners to complete The Game with bookkeeping set to 'automatic' which means the debit and credit entries will be performed automatically for the learner.

In terms of **learning assessment**, The FEFE game and especially The Game's quiz can be integrated within ongoing formative assessment alongside regular training provision. For example, this could be on a 'pass/fail' basis, whereby learners will be awarded (say) 10% of the marks for the module for successfully achieving a target Game Level or 'Score'. Or, alternatively, this could be on a 'graded' basis, whereby

learners will be awarded (say) up to 10% of the marks for any given training module according to the 'Score' 'out of 100' they achieve from playing The Game.

The FEFE Game could be used to support a wide range of learning tasks, which can be summarised as follows:

1. Performing a Financial Analysis:

The Game provides an opportunity for learners that reached Level 2, to check that the calculations of the following metrics and ratios provided within The Game is correct: EBITDA, Return on capital employed, Operating profit margin, Gross margin, Operating expenses to sales ratio, Sales revenue on capital employed, Inventory holding period, Settlement period for trade receivables, Settlement period for trade payables, Current ratio, Acid-test ratio, Gearing ratio, Interest cover.

Using the ratios above, learners could be required to prepare an analysis of the financial performance and financial position of their business. This analysis should make specific reference to the business' profitability, efficiency, liquidity and stability.

2. Preparing a Cash Flow Forecast and Pitching for Funding:

Learners playing The Game could be required to prepare a cash flow forecast at the end of Level 1 for the first year of Level 2, given that in the first month of Level 2 their businesses will be investing V\$3m in the purchase of their store and will from then on be buying inventory on 1 month's credit and selling inventory on 2 months' credit.

Using this cash flow forecast, the students could then be required to prepare and deliver a 10-minute presentation as if to the bank to support a request for a 5-year bank loan to support the business' cash requirements for Level 2.

3. Explaining the Differences between Profit and Cash Flow:

Using The FEFE Game to illustrate, learners could be required to explain why the amount of profit generated by a company in a period does not necessarily indicate the amount of cash that has been generated in that period.

4. Understanding the Purpose of Financial Statements:

Using The FEFE Game to illustrate, learners could be required to explain the purpose and content of a Statement of Financial Position and Statement of Profit or Loss prepared under International Financial Reporting Standards.

5. Accounting Treatments (Non-Current Assets, Inventory, Provisions):

Using The FEFE Game to illustrate, learners could be required to explain the accounting treatment required (or allowed) under International Financial Reporting Standards with respect to Non-Current Assets, Inventory and Provisions.

6. Accounting Concepts:

Using The FEFE Game to illustrate, learners could be required to explain the meaning of the following accounting concepts: Definitions of Assets, Liabilities, Equity, Income and Expenses, Going Concern, Historical Cost, Revenue, Cost of Sales, Depreciation, Amortisation, Accruals, Prepayments, Provisions, Bad Debt Expense, Allowance for doubtful receivables

7. Raising Commercial Awareness:

Using the FEFE Game to illustrate, learners could be required to identify and explain the impact on financial performance and position of a range of business decisions including (but not limited to):

- Responding to the actions of competitors
- Reacting to changes in regulation
- Negotiating contract prices with customers
- Building human capital through training staff

FEFE Country Guides Use

The FEFE Country Guides (see, Annex 2) provide information as to the financial legislation in 4 European countries: UK, Austria, Cyprus and Spain. Guides will allow users to make decisions about:

- the type of business they want to set up, according to their business objectives and entrepreneurial goals
- which of the four countries best serves the type of business they want to run
- what is the legal process that will have to be followed before registering a business
- which procedures should be followed once the business starts to trade

Teachers and trainers can embed the Guides in their regular activities, especially in those modules focussing on the internationalisation of micro and small business and entrepreneurial activities.

Furthermore, by encouraging learners to get acquainted with different business environments, this will open their creativity for new and alternative business ventures.

The Country Guides will serve as a good starting point for peer learning through the Social Learning Platform as well.

Eventually, educators can encourage learners to form teams and create similar guides for other countries, which will further improve their understanding of business climate in Europe and on a global scale.

FEFE Social Learning Platform Utilization

The FEFE Social Learning Platform (see, Annex 3 for full description) is a powerful complementary tool to regular face-to-face classroom activities, since it provides an environment for virtual collaboration of learners and educators across both national and international contexts.

Through the communication channels of the platform, learners can be encouraged to engage in learning with peers in their country or abroad, which will expand further their knowledge, skills and competences in the area of financial literacy.

Educators could collaborate with colleagues outside their institutions and exchange lesson plans and learning materials. Moreover, the platform will allow for coordinating the virtual projects of their learners.

Annexes

The FEFE Game - Description

The FEFE Game is set in a hypothetical fantasy context. The user is a vampire living in Transylvania who has been left money by their uncle to set up and run a business selling upcycled musical coffins. The user can choose whether to sell coffin guitars or coffin pianos, though this choice has no impact on their business' performance.

The currency for The Game is Vampire dollars, represented by the letter 'V'. So 100,000 Vampire dollars is shown as 'V\$100,000'.

The following regulations apply:

- Sole traders pay personal tax on the profits earned by their business at a rate of 20% per annum, payable in Month 3 of the following year (with drawings). This tax is therefore not an expense or liability of the business, but instead of the business owner.
- Companies pay tax on profits at a rate of 20% also payable in Month 3 of the following year.
- Sole traders and companies are required to prepare their Financial Statements under International Financial Reporting Standards (IFRS).

The objective of The FEFE Game is for the user to set-up a business and grow it to the point where it becomes listed on the Transylvanian Stock Exchange.

The growth of the business is dependent upon 'Customer Demand', which in turn is dependent upon the user's response to 'Events' and the score they achieve in the 'Financial Competence Quizzes'.

Level 0 is effectively a 'practice year', and the only objective for the learner to achieve is that their business has a positive cash balance at the end of the year.

To progress through the other Levels, the user must achieve the following annual performance targets:

- A financial performance target specific to that Game Level. (Revenue at Level 1; Profit at Level 2 and Return on Capital Employed at Level 3);
- A Financial Competence Quiz Score of at least 50 out of 64 (78.1%);
- A Bank Manager Relationship Score of at least 26 out of 32 (81.3%);
- Any emergency loans to have been repaid;
- A Bookkeeping score of at least 80% (if bookkeeping mode is set to 'manual').

The FEFE Game Modes and Levels

The Game has two alternative modes for the ‘double entry bookkeeping’ feature:

1. For ‘specialists’ (suitable for accounting and finance students and trainees):

- Players (learners) should choose the option for Bookkeeping to be performed manually. This means learners will be required to identify the correct debit and credit entries for the business’ transactions. Learners will also have access to the business’ accounting ‘ledgers’ at the end of each month.

2. For ‘non specialists’ (suitable for business students, entrepreneurs and business managers):

- Players (learners) should choose the option for Bookkeeping to be performed automatically. This means learners will not be required to identify the correct debit and credit entries for the business’ transactions and instead will receive a summary each month of how each transaction has impacted on the business’ financial statements.

The FEFE Game has 4 Levels: Level 0: Sole Trader – Trainee; Level 1: Sole Trader – Apprentice; Level 2: Sole Trader – Technician; Level 3: Limited Company – Master.

Below is a summary of the key features and financial target for each Level of The Game:

Level	Business Structure	Business Decisions	Financial Data	Annual Financial Target
0	Trainee	<ul style="list-style-type: none"> • Number of units to purchase • Number of sales staff to employ 	Statement of Profit or Loss Statement of Financial Position General Ledger ⁷	Cash positive at end of year
1	Sole Trader	<ul style="list-style-type: none"> • As above 	Non Current Asset Register Accounting Policies ⁶	Revenue V\$3.6m
2	Sole Trader	<ul style="list-style-type: none"> • As above 	Metrics and Ratios	Profit V\$750k

⁷ This learning outcome can be expected only if the learner playing the Game has chosen ‘manual bookkeeping’ mode

3	Limited Company	<ul style="list-style-type: none"> • As above • Whether to purchase new stores • How to finance new stores 	Statement of Cash Flows	Return on Capital Employed 20%
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Level 0

At Level 1, the user starts a sole trader business and transactions are mainly in cash, except for the year-end Accountancy Fees adjustment which requires an 'Accrual'.

Level 0 Content

Finance and Accounting Topics	Financial Competence Quiz Questions
<ul style="list-style-type: none">• Statement of profit or loss• Statement of financial position• Cash transactions• Drawings• Accruals• General Ledger⁸	<ul style="list-style-type: none">• Terminology and definitions (basic)• Presentation of financial statements (basic)

Level 1

At the start of Level 1 the business acquires Fixtures and Fittings and so the user is introduced to Tangible Non-Current Assets and their depreciation.

Level 1 Content

Finance and Accounting Topics	Financial Competence Quiz Questions
<ul style="list-style-type: none">• Accounting policies• Non-current asset register⁸• Tangible non-current assets and depreciation• Personal tax	<ul style="list-style-type: none">• Presentation of financial statements (advanced)• Bookkeeping (basic)⁸

Level 2

At Level 2, the business acquires the store which at Level 1 was rented. Credit purchases and sales are also introduced on the following terms:

- purchases are made on 1 month's credit

- sales are made on 2 month's credit

Finance and Accounting Topics	Financial Competence Quiz Questions
<ul style="list-style-type: none">• Metrics and ratios• Credit transactions• Prepayments• Loans• Inventory accounting	<ul style="list-style-type: none">• Terminology and definitions (advanced)• Presentation of financial statements (advanced)• Accounting treatments (basic)• Metrics and ratios (basic)• Bookkeeping (advanced)⁸

⁸ This learning outcome can be expected only if the learner playing the Game has chosen 'manual bookkeeping' mode

Level 3

At Level 3, the business becomes a limited company. At the start of Year 1 of Level 3, the owner's capital is converted into shares. At the start of Year 2 of Level 3 the company invests in a website and so the learner is introduced to Intangible Assets and their amortisation.

Finance and Accounting Topics	Financial Competence Quiz Questions
<ul style="list-style-type: none">• Statement of cash flows• Share issue• Intangible assets and amortisation• Dividends• Company taxation• Bad debts• Provisions• Capitalise versus expense decisions• Financing choices• Credit periods with customers and suppliers	<ul style="list-style-type: none">• IFRS framework• Accounting treatments (advanced)• Metrics and ratios (interpretation)• Accounting measurements• Cash flow

The FEFE Game Process

1. Monthly

For each Level of The Game, learners are required to achieve a series of defined annual performance targets. The learner then completes a monthly cycle of activities and at the end of the year, if the performance targets have been met, the learner progresses to the next Level. If not, they are required to repeat another year at that Level and try again to meet the targets set.

The monthly cycle consists of the following:

1. Respond to an Event
2. Make Business Decisions
3. Record (or Review) the business' Transactions
4. Review the business' Financial Data
5. Complete a Quiz (either a 'Financial Competence Quiz' or on a quarterly basis a 'Bank Manager Meeting')

i. Events

At the start of each month the learner must respond to an Event. Some are positive and some negative and for some the consequence is affected the learner's choice of response. The events include some which address 'Commercial', 'Accounting', 'Risk' or 'Ethical' decisions and challenges:

- 'Commercial Decisions' require the learner to make a choice which will impact the future performance of the business (e.g. whether to accept an order from a customer at a special low price). The learner will receive feedback on whether their response was appropriate and potentially a reward or penalty for their 'Customer Demand' score as well.
- 'Accounting Challenges' require the learner to solve an accounting challenge (e.g. to calculate the monthly depreciation expense for a new non-current asset). The learner will receive feedback on whether their choice was appropriate and a reward or penalty for their 'Customer Demand' score as well. An incorrect response will also mean an increase in the annual 'Accountancy Fees' payable by the business for the year.
- 'Financing Challenges' require the learner to solve a financing challenge (e.g. to decide how to finance an investment in a new store). The learner will receive feedback on the factors which determine whether or not their choice was appropriate.
- 'Risk Events' require the learner to decide whether to incur additional costs to reduce the risk of adverse impacts on their business (e.g. insuring against flood damage to inventory).
- 'Ethical Dilemmas' are those where the choice which has the highest positive impact on the profits of the business may not be ethical (e.g. ignoring a legal requirement to carry out a Health and Safety Audit). The learner will receive

feedback on whether or not their response was 'ethical' and may also receive a reward or penalty for their 'Customer Demand' score as well.

ii. Business Decisions

At the next stage the learner is required to make a series of monthly business decisions.

These decisions affect the business' capacity to supply units to meet customer demand.

The learner starts with one store, which is rented, with a 'theoretical capacity' to sell up to 50 units per month (subject to the effect of the 'Wheel of Fate', as explained below).

At Level 2 the store is purchased and capacity increases to 60 units.

At Level 3 the store capacity increases to 70 units which is doubled to 140 units when the learner invests in a website. Also at Level 3, the learner can choose to acquire new stores.

Each sales person has the capacity to sell to up to a maximum of 10 units per month (subject to any changes arising from Events).

Customer demand on the other hand, is affected by the learner's response to Events and also by their score in the monthly quizzes, subject to being increased or reduced by the effect of the 'Wheel of Fate', which applies immediately after the business decisions have been made.

The 'Wheel of Fate' has the following effect at each Level::

- At Levels 0 and 1: Ranges between -2 and +2
- At Level 2: Ranges between -10 and +10
- At Level 3: Ranges between -20 and +20

iii. Record or Review Transactions

The next stage varies according to whether the bookkeeping mode is 'manual' or 'automatic'.

In the 'manual' mode, the learner is required to identify the debit and credit entries required for each of the business' transactions which are revealed as individual 'Transaction Cards'.

This bookkeeping requires feature the learner to click on the debit (red) or credit (green) gem and then work through the hierarchy of ledger accounts to find the correct ledger.

For example, for the entry 'Debit Cash at Bank':

- First choose the Debit gem
- Then choose Assets
- Then choose Current Assets

- Then choose Cash at Bank

Once the learner has correctly identified the debit and credit entries for a transaction on two consecutive occasions, they are no longer required to complete the bookkeeping for that transaction and a 'skip' option becomes available. There is also, however, a built in 'random' process which means there is a 20% possibility that a transaction will need to identify the correct debit and credit entries, to ensure the learner can still record the bookkeeping for transactions they have previously mastered.

In the automatic mode, the learner simply skips through the Transaction Cards which are recorded on their behalf. The bookkeeping is performed automatically within The Game.

In both modes, once the each Transaction Card has been dealt with, a Transaction Summary appears which summarises the effect of each Transaction on the business' Financial Statements.

For example, for the investment of capital by the owner:

Cash at Bank	Assets	Increase +
Owner's Capital	Equity	Increase +

iv. Review Financial Data

At the next stage the learner is able to review the Financial Data for their business.

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At Level 0 this comprises:

- Statement of Profit or Loss
- Statement of Financial Position

If the learner is working in 'manual' bookkeeping mode, the individual ledger accounts can also be reviewed via the 'General Ledger'.

From Level 1, the 'Non-Current Asset Register' and 'Accounting Policies' are also available.

From Level 2, 'Metrics and Ratios' are added which provide the following key financial performance indicators:

1. EBITDA (Earnings before interest tax depreciation and amortisation)
2. Return on capital employed
3. Operating profit margin
4. Gross profit margin
5. Operating expenses to sales ratio
6. Sales revenue on capital employed
7. Inventory holding period

8. Settlement period for trade receivables
9. Settlement period for trade payables
10. Current ratio
11. Acid test ratio
12. Gearing ratio
13. Interest cover

From Level 3, the 'Statement of Cash Flows' is added.

v. Quiz

At the next stage the learner completes one of two types of quiz: a monthly Financial Competence Quiz (months 1, 2, 4, 5, 7, 8, 10 and 11) which affects the business' Customer Demand or a Quarterly Bank Manager Meeting Quiz (months 4, 6, 9 and 12) which affects the rate of interest payable on short and long-term borrowings.

The Financial Competence Quiz is a timed quiz which involves 8 multiple choice questions covering the following accounting and finance topics:

- Accounting terminology and definitions (basic and advanced)
- The presentation of financial statements (basic and advanced)
- Sources of accounting rules, accounting concepts and conventions
- Accounting treatments (basic and advanced)
- Financial metrics and ratios (basic and advanced)
- Accounting measurements
- Cash flow
- The IFRS framework
- Bookkeeping (basic and advanced)⁹

The learner's performance in the Financial Competence Quiz will lead to an increase in Customer Demand. Also, at each Level from Level 1 onwards the learner must answer at least 50 of the 64 questions (78%) over the course of a year (along with achieving other performance objectives) to progress to the next Level.

The quarterly Bank Manager meeting is a timed quiz which involves 8 multiple choice questions requiring learners to correctly identify certain key financial numbers for their business. Whilst they can consult their financial statements to find the required numbers, the time pressure means learners are more likely to perform well if they complete the quiz having already familiarised themselves with their business' key financial data.

The learner's cumulative performance in the Bank Manager quizzes over a year affects the interest rate payable on long term loans. The lower the learner's score, the higher the interest rate payable. Also at each Level from Level 1 onwards, the learner must

⁹ Only relevant if the learner playing the Game has chosen 'manual bookkeeping' mode

answer at least 26 out of 32 questions correctly (81%) over the course of a year (along with achieving other performance objectives) to progress to the next Level.

2. Year-End

At the year-end, the financial statements are adjusted and the full year Financial Accounts are submitted to the Government. The detail of the year-end process varies by Game Level:

i. At Levels 0, 1 and 2, the year-end process involves the following sequences:

- the financial statements are adjusted for the Accountancy Fees payable for the year (which requires an Accrual to be created)
- the Financial Accounts for the year are submitted to the Government
- the new financial year starts and the tax payable by the learner in month 3 of the new year and the monthly drawings for the new year are calculated:
- tax payable by the learner is calculated as 20% of the prior year profit. (The amount payable is added to the Month 3 drawings for the new financial year).
- drawings per month are 1% of the previous year-end Equity number in the Statement of Financial Position. (The learner requires a 12% annual return on the Equity invested in the business). For Month 3, the drawings include the tax payable by the learner as well.

ii. At Level 3, the year-end process is different to reflect the business is now a limited liability company:

- in addition to the adjustment for the Accountancy Fees payable for the year, the financial statements are also adjusted for the tax payable by the company on its profits at a rate of 20% of its profits for the year.
- the new financial year starts and the dividend payable to shareholders is calculated. Dividends are paid in 2 instalments, each being 12.5% of the prior year profits after tax. Dividends are payable in Month 3 and Month 9 of the new financial year and in accordance with IFRS requirements are accounted for in the month in which they are paid.

The FEFE Game Accounting Policies

1. Basis of Preparation

The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

2. Tangible Non-Current Assets and Depreciation

i. Tangible non-current assets are held at historical cost less accumulated depreciation. Cost includes the original purchase price of the asset and the costs to bringing the asset to its working condition for intended use.

ii. Depreciation is calculated using the following methods:

Buildings: the straight-line method over 50 years with a zero residual value.

Fixtures and fittings: the reducing balance method using a rate of 30% per annum. Depreciation is charged on a monthly basis, starting from the month in which the fixtures and fittings were acquired.

Land is not depreciated.

3. Intangible Assets and Amortisation

i. Intangible assets are carried at cost less accumulated amortisation.

ii. Amortisation is calculated using the following method: Website: the straight-line method over 5 years with a zero residual value.

4. Inventory

Inventory comprises goods held for resale and are valued on a Weighted Average Cost basis and carried at the lower of cost and net realisable value. Net realisable value represents the estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. Cost includes all direct expenditure and other appropriate attributable costs incurred in bringing inventories to their present location and condition.

5. Receivables

Trade receivables are stated at their carrying amounts and are written off when management deems them uncollectable.

6. Provisions

Provisions are recognised when there is a present legal or constructive obligation as a result of a past event, for which it is probable that an outflow of economic benefit will be required to settle the obligation and where the amount can be reliably estimated.

FEFE Country Guides – Summary

One of the FEFE project's main purpose is to provide information of the financial legislation of each of the partner's country, (Austria, Cyprus, Spain and UK). All this information is gathered in "Country Guides", which work as a detailed manual for those interested in setting up a business in one of the participant countries.

Country Guides are the result of the intellectual output 4 of the project and it consists of four extended texts, in all four partners' languages. Information was gathered and written with care, after thorough research, with references to relevant information provided by official government departments. Each Guide is also summarized in a two-page document, containing the most basic data of the financial legislation of each country. Those condensed texts can be found in all four languages.

The Guides contain information about setting a business, types of business entities and legal registration requirements and procedures to establish a business, information about taxation, other regulatory considerations for business, etc.

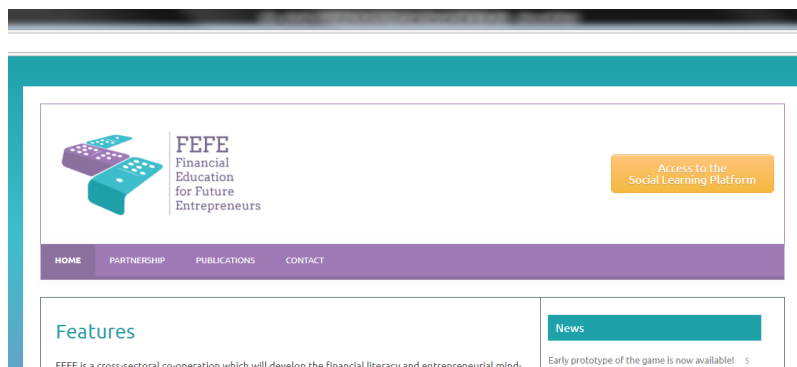
Those interested (learners and educators) can find the Guides in The FEFE Project's website (<http://fefeproject.eu/>) in PDF format and they can download and/or print them for future reference. To select a full Guide, click on the flag of the country of your interest. To select a short summary, go to the flag of the country of your interest and select it in the language of your choice.

FEFE Social Learning Platform - Summary

Access to the SLP

In order to access to the Social Learning Platform, two options are possible:

- Accessing from FEFE project web page: <http://fefeproject.eu/>



- Accessing directly through the SLP link: <https://fefe.hi-iberia.es:4572/login>

SLP functionalities

- Access to the Content generated in the FEFE project for learning purposes.
- Access to the Top Ten players of The Game:
- Chat option is also available. Inside the chat you have also the video-call group option that could be very useful for tutorial sessions.
- Download the FEFE Game.
- Access to a Forum: there are general Forums defined, but also specific Forums had been created for each of the languages. You could go to a specific Forum and publish new posts, view the existing ones, or reply to any of them.

EQF/ECVET Learning Outcomes Approach – Summary

European Qualifications Framework - EQF

The European Qualifications Framework (EQF) helps to compare national qualifications systems and enable communication among them. At the core of the EQF there are eight common European reference levels, which are described in learning outcomes: knowledge, skills and competence. This makes it more understandable what a learner with a qualification related to the EQF knows, understands and is able to do. FEFE Training Curriculum is designed for EQF level 4 based on both EQF and partnership countries' NQF descriptors¹⁰.

KNOWLEDGE	In the context of EQF, knowledge is described as theoretical and/or factual
The learning outcomes relevant to level 4 are	
EQF	Factual and theoretical knowledge in broad contexts within a field of work or study
Austria	<p>He/she has:</p> <ul style="list-style-type: none"> – an in-depth general education; – theoretical knowledge in his/her field of work or study (e.g. about facts and circumstances, principles, materials, processes, methods, connections, regulations and norms) to deal independently with common tasks and challenges, including with changing framework conditions; – fundamental company-related business and legal knowledge; – a university entrance qualification or knowledge needed to directly exercise a profession
Cyprus	<ul style="list-style-type: none"> – Has knowledge of principles and broad theories in the field of work or study. – Selects and analyses theoretical knowledge in broad contexts of his/her field or work of study. – Applies facts and procedures relating to his/her field or work of study. – Has understanding of relations between professional problems in an international framework.
Spain	<ul style="list-style-type: none"> – Knowledge in wide contexts in various study areas or in a specialised professional field.
United Kingdom	<ul style="list-style-type: none"> – Use practical, theoretical or technical understanding to address problems that are well-defined but complex and non-routine. – Analyse, interpret and evaluate relevant information and ideas. – Be aware of the nature and approximate scope of the area of study or work. – Have an informed awareness of different perspectives or approaches within the area of study or work.

¹⁰ Cedefop (2013). Analysis and overview of NQF level descriptors in European countries.

SKILLS	In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments)
	The learning outcomes relevant to level 4 are
EQF	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study
Austria	<p>In his/her field of work or study he/she is able to:</p> <ul style="list-style-type: none"> – select common instruments, methods and procedures and use them appropriately; – independently cope with standard tasks, including under changing conditions; – analyse everyday problems taking into account theoretical knowledge, demonstrate different approaches to solutions and solve these problems independently; – develop certain creative and networked thinking; – take part in discussions in standard situations with familiar themes, present his/her own viewpoint and give reasons to substantiate this; – independently research relevant information to fulfil his/her tasks from largely given sources, critically assess this and use it; – present information in appropriate form (i.e. according to the situation and the target audience) and also technically correct while using the correct language and using common communication techniques/technologies.
Cyprus	<ul style="list-style-type: none"> – Able to select and apply relevant tools, techniques, materials and methodologies in the field of work or study. – Able to identify practical or theoretical problems and solve them. – Able to assess the quality of others and their own work based on the given standards. – Able to utilise the terminology of his/her occupation or field of study in collaboration with colleagues.
Spain	<ul style="list-style-type: none"> – Knowledge application to carry out a set of activities in defined and generally previewed contexts. – Skills to resolve generally predictable problems in the knowledge areas or a field of work. – Supervision of other people’s everyday work taking some responsibility for the evaluation and improvement of work or study activities. – To communicate knowledge, abilities, feelings and activities correctly in generally predictable contexts through different resources and forms of expression. – Analysis of the consequences of one’s and others’ actions in generally predictable contexts. – Analysis of concrete information needed to assess and solve problems within their own study or professional field. – Finding creative solutions for problems in a study or professional field.
United Kingdom	<ul style="list-style-type: none"> – Address problems that are well-defined but complex and non-routine. – Identify, adapt and use appropriate methods and skills. – Use appropriate investigation to inform actions. – Review the effectiveness and appropriateness of methods, actions and results.

COMPETENCE	In the context of EQF, competence is described in terms of responsibility and autonomy
The learning outcomes relevant to level 4 are	
EQF	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Austria	In his/her field of work or study he/she is able to: <ul style="list-style-type: none"> – handle routine situations independently and behave appropriately according to the circumstances; – work in a team and instruct/supervise others in common tasks.
Cyprus	<ul style="list-style-type: none"> – Able to take responsibility for own and joint work processes and outcomes. – Able to apply knowledge and skills to perform qualitative and quantitative tasks. – Able to search for professional development. – Able to demonstrate an advance level of key competences at this level as a basis for higher education. – Able to take responsibility for field of work or study.
Spain	<ul style="list-style-type: none"> – Self-management of education in a study or professional field, with maturity to improve learning and training skills at higher levels. – Responsible attitudes towards education that will allow them realise the value of new possibilities and of carrying out activities independently. – Responsible attitude towards other people’s work, enabling them critically to value new possibilities to make improvements. – Responsible attitude regarding the application of workplace risk prevention, their own and people’s safety, work quality and environmental protection where professional activity is carried out
United Kingdom	<ul style="list-style-type: none"> – Take responsibility for courses of action, including where relevant responsibility for the work of others. – Exercise autonomy and judgement within broad parameters.

European Credit System for Vocational Education and Training - ECVET

The purpose of the European Credit System for Vocational Education and Training (ECVET) framework is to facilitate the transfer, recognition and accumulation of assessed learning outcomes of individuals who are aiming to achieve a qualification.

This will improve the general understanding of citizens’ learning outcomes and their transparency, transnational mobility and portability across and, where appropriate, within Member States in a borderless lifelong learning area, and will also improve the mobility and portability of qualifications at national level between various sectors of the economy and within the labour market; furthermore, it will contribute to the development and expansion of European cooperation in education and training.

Terminology

ASSESSMENT HOURS

Should include the time needed to prepare the assignment (e.g. if a student has to spend 6 hours reading a book in order to be able to work on an assignment, those 6 hours should be included). In the case of an exam, indicate only the time allocated to the exam (e.g. 2 hours).

COMPETENCE

Proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In EQF context, is described in terms of responsibility and autonomy (social competences).

CREDIT

Credit for learning outcomes (i.e. credit) designates individuals' learning outcomes which have been assessed and which can be accumulated towards a qualification or transferred to other learning programmes or qualifications. Credit refers to the fact that the learner has achieved the expected learning outcomes which have been assessed positively and the outcome of the assessment was documented in a personal transcript. Based on this documentation, other institutions can recognise learners' credit.

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CREDIT ACCUMULATION

Process through which learners can acquire qualifications progressively by successive assessments and validation of learning outcomes. Accumulation of credit is decided by the competent institution responsible for the award of the qualification. When the learner has accumulated the credit required and when all the conditions for the award of the qualification are fulfilled, the learner is awarded the qualification.

CREDIT TRANSFER

Process through which learning outcomes achieved in one context can be taken into account in another context. Credit transfer is based on the processes of assessment, validation and recognition. In order to be transferred, learning outcomes have to be assessed. The outcome of the assessment is recorded in a learners' personal transcript and constitutes credit. On the basis of the assessed outcomes the credit can be validated and recognised by another competent institution.

EUROPEAN CREDIT SYSTEM FOR VOCATIONAL EDUCATION AND TRAINING (ECVET)

ECVET is a technical framework for the transfer, recognition and where appropriate, accumulation of individuals' learning outcomes with a view to achieving a qualification. ECVET tools and methodology comprise the description of qualifications

in terms of units of learning outcomes with associated points, a transfer and accumulation process and complementary documents such as Learning Agreements, transcripts of records and users' guides.

ECVET POINTS

Numerical representation of the overall weight of learning outcomes in a qualification and of the relative weight of units in relation to the qualification. Together with units, descriptions of learning outcomes and information about the level of qualifications, ECVET points can support the understanding of a qualification. The number of ECVET points allocated to a qualification, together with other specifications, can indicate for example, that the scope of the qualification is narrow or broad.

EUROPEAN QUALIFICATION FRAMEWORK (EQF)

EQF is a reference framework which links countries' qualifications systems together, acting as a translation device to make qualifications more readable and understandable across different countries and systems in Europe. The eight reference levels are described in terms of learning outcomes.

HANDS-ON HOURS

Should refer to practical sessions which can also be supervised. In case of site visits, if supervised, are considered as hands-on practice.

KNOWLEDGE

Outcome of the assimilation of information through learning. Is the body of facts, principles, theories and practices that is related to a field of work or study. In the EQF context, is described as theoretical and/or factual.

LEARNING OUTCOMES

Statements of what a learner/worker knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competences.

QUALIFICATION

Formal outcome of an assessment and validation process which is obtained when a competent institution determines that an individual has achieved learning outcomes to a given standard.

RECOGNITION OF LEARNING OUTCOMES

The process of attesting officially achieved learning outcomes through the awarding of units or qualifications.

SELF-STUDY HOURS

Should refer to the study of something by oneself without direct supervision or attendance in a class. In case of site visits, if not supervised, are considered as self-study.

SKILLS

Ability to apply knowledge and use know-how to complete tasks and solve problems. In EQF context, are described as cognitive (use of logical, intuitive and creative thinking) and/or practical and technical (manual dexterity and the use of methods, materials, tools and instruments).

UNITS OF LEARNING OUTCOMES

Unit is a component of a qualification, consisting of a coherent set of knowledge, skills and competence that can be assessed and validated. Units enable progressive achievement of qualifications through transfer and accumulation of learning outcomes. They are subject to assessment and validation which verify and record that the learner has achieved the learning outcomes expected.

VALIDATION OF LEARNING OUTCOMES

The process of confirming that certain assessed learning outcomes achieved by a learner correspond to specific outcomes which may be required for a unit or a qualification.