GAME laboratory

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Guide On The Use Of Games As An Effective Non-Formal Education Method In The Socio-Economic Activation Of NEET Youth

Engaging NEET Youth THROUGH THE MEDIUM OF GAMES

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Foreword

The Game Laboratory Project (GameLab) was developed in order to comprehend and tackle an important issue in the context of human development across Europe. This project explored the use of games as a methodology which actively engaged NEET[1] youth in their environment. The term NEET has been commonly used across a range of diverse channels such as the media, politicians, governments, institutions and across third sector organisations. The GameLab project was created by four international partner organisations from Poland, the UK, Cyprus and Spain. The aim of this project was to work with NEET youth through the medium of games related to promoting economic participation and entrepreneurship through non-formal settings. This project involved experts who met in Poland, Spain and Cyprus where they discussed and shared best practice about the context of the project which was funded by the Erasmus + programme.

The project was developed to explore issues affecting NEET youth primarily aged between 15-17 living in Europe. The age range of 15-17 is important for engagement, youth work and addressing issues of non activity, non participation, economic inactivity and non participation in education. This is an important age range because this is where young people may be about to leave, are leaving secondary schools, or have left and were choosing their future paths whether in education, training or employment.

A global partnership was created in order to showcase the situation and context of NEET youth across four different countries within Europe. This would provide a European wide context as well as more focused analysis on the situation of NEET youth in these respective areas. This project also aimed to boost entrepreneurial flair and allow young people to be introduced to new concepts and ideas around economic development and participation.

Enhancing entrepreneurship education is an important challenge for educational institutions in society. The development of entrepreneurial attitudes should start in primary schools. Entrepreneurial education is still relatively immature and rarely adequately addressed at strategic level by national policies/programmes[2]. As society and lifestyle constantly change in the age of digital and wider technology (Barab, 2012) communication and youth development are crucial factors to consider when exploring issues affecting NEET youth. Therefore this project was successful in its aim to bring together experts and talented individuals with innovative working methodologies and interactional working styles. These working styles were imperative in engaging NEET and sharing best practice across geographical boundaries.

[1] NEET- 'Not in Education, Employment or Training'

[2] European Commission (2008). Entrepreneurship in higher education, especially within non-business studies, Final Report of the Expert Group, Brussels.

This guidebook provides knowledge to increase the understanding of how best to use games in education, explores the key issues NEET youth in Europe are facing and delves into the conditions of introducing games as a learning tool and an engagement method when working with NEET youth.

The guidebook was developed with the active collaboration of specialists and the youth involved in the project, from all partner countries. All of the project partners have shared their experiences using games and working with NEET youth as well as the context, experiences and issues NEET youth are facing in each respective partner country.

1. NEET Youth In Europe

The future of Europe depends upon millions of Europeans aged between 15 and 29. It is a matter of great concern that these young people have been hit so hard by the economic crisis. The unemployment figures testify to a labour market which is gradually becoming more difficult for young people to enter.

Some young people are not enrolled on any formal educational pathway and are not in employment. Young people who find themselves in this particular position become susceptible to anti-social behaviour alongside many other social and economic problems. When young people spend prolonged time periods not in education, employment or training this can have a damaging effect on their life chances. It can lead to long lasting periods of unemployment, poverty and mental health issues as well as economic and social deprivation. Youth who may be classed as NEET (Bell and Thurlby-Campbell, 2017) become at risk of social isolation and potential movement towards the margins of society. This context often leads to economic inactivity which can be problematic and seriously affect life chances. Sometimes NEET youth are also labelled by wider society as being lazy and unwilling to work. These types of stereotypes can have a negative self- fulfilling prophecy affect.

According to the Report entitled "Exploring the diversity of NEET's "(Eurofound, 2016) the NEET rate is computed as the share of young people who are not in employment, education or training of the total population of young people. In this it differs from the youth unemployment rate, which measures the share of young people who are unemployed among the population of young people who are economically active. For this reason, while in relative terms the youth unemployment rate is higher than the NEET rate, in absolute terms the overall number of NEETs is generally higher than the overall number of young unemployed people.

The age range of 15-17 was important for the project because of various reasons. If young people within this age bracket become economically inactive and do not transfer into further education this can become a negative factor for their life chances and prospects. There is also the possibility for young people to get involved in crime and anti-social behaviour because they are not in any channels of education and are economically inactive. Young people who maintain a position or role within education or employment are much more likely to have higher levels of wellbeing (Fletcher, 2016). Also staying in education may well allow young people to earn higher salaries through higher educational attainment, although there may be some exceptions to this. Therefore these are important reasons in exploring the 15-17 NEET youth age range in order to better understand issues and problems they may be facing. According to Eurostat data the percentage of young NEET people in the European Union (28 countries) in 2002 was 4.2% and fourteen years later in 2016 this figure was at 2.7%.

According to Eurostat data the percentage of young NEET people in the European Union (28 countries) in 2002 was 4.2% and fourteen years later in 2016 this figure was at 2.7%. At the turn of the millennium Spain had 5.7% of 15-17 year olds not in education or training to 4.3% in 2016. In comparison to the figure for the European Union overall, Spain has a higher number of young people not in education or employment who are aged 15-17. The global recession in 2008 had a severe impact across many countries globally.

In 2014 Spain had a youth unemployment level which stood at around 55%. Four years ago nearly one in four Spaniards aged between 18 and 29 were classed as NEET. At that time over approximately 1.7 million Spanish youth aged under 30 were out of work. According to Eurostat in 2016 Sweden had 0.9% of young people aged between 15-17 not in education or employment. This figure for Sweden was amongst the lowest in comparison to other countries in the European Union. This meant that more young teens were going on to study in further education or gaining employment.

1.1. NEET Youth: A British Perspective

The term NEET was originally coined in Britain. Young people in this category have existed in the UK for many years. Within the UK the NEET age range is considered 16-24. In a briefing paper presented at the House Of Commons in March, 2018 we were able to ascertain a number of points related to British NEET youth.

It is important to note that at the end of 2017 there were 7.1 million young people aged 16-24 living in the UK. Of this demographic 3.8 million were in employment which is just over half of the youth aged 16-24. 794,000 people aged 16-24 were classed as NEET in the last three months of 2017, 11.2% of all people in this age group. This was a minor increase from the previous quarter and down 34,000 from the last three months of 2016.

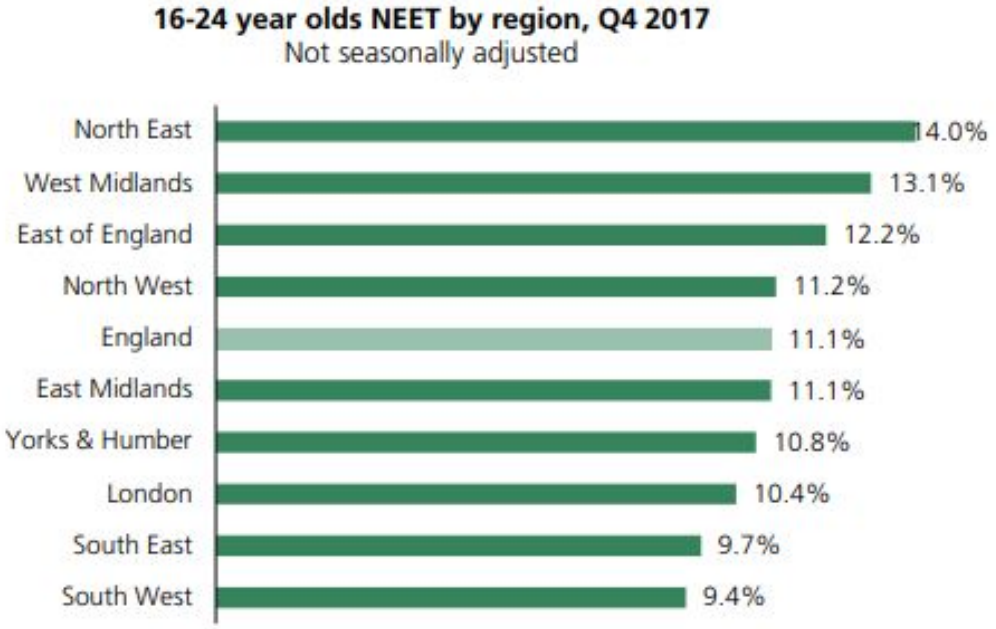

Figure 1.1: Regional figures published in the Department for Education's Statistics for England: NEET and participation (last updated June 2017)

Over the last seven years NEET numbers have been falling but still remain relatively high. In 2011 the UK saw the highest number of young people since records began classed as NEET at 1.25 million which was 16.9% of 16-24 year olds. As 2017 ended there were around 23, 000 more men classed as NEET than women. In the past more women have tended to fall into the NEET category but in recent years this has equalled out into similar levels.

There are opportunities for youth workers and practitioners to support NEET youth in a variety of ways. Practitioners can create non-formal learning spaces for youth to try and develop their skills, self esteem, motivation and confidence. Settings and locations such as community facilities, youth clubs and sports centres can be places of positivity and the facilitation of change. Practitioners can also assist in the development of young people who are in the NEET category through mentoring programmes, coaching, self development training sessions amongst other channels of support (Otto, 2017).

Powell's (2018) report states "some of the policies in place that aim to reduce the number of people who are NEET include:

- The September Guarantee entitles all 16 and 17 year olds to an offer of a suitable place in education or training, while the participation age was raised to 18 in 2013.
- Various steps have been taken to help young people find sustained employment, such as the expansion of the apprenticeships scheme, reforms to technical education, improved careers advice and the removal of Employer National Insurance Contributions for young people.
- The government has been funding various schemes that look to improve the educational outcomes for disadvantaged young people, and those with learning difficulties or disabilities. Support for unemployed people to find work is provided through Job Centre Plus."

Entrepreneurship is a potential avenue that can support the skills and economic development of NEET youth. In addition to this in the UK there have been schemes promoted to employers where companies receive funds for employing young people as apprentices in roles such as administration or customer service for example. These contracts have been delivered by educational institutions such as colleges, companies and even third sector organisations such as community facilities. Apprenticeships can last for a short period of time or longer periods. This method of engagement allows young people to learn on the job, study for a qualification and earn money from working in a business. In the UK young people can gain NVQ qualifications the equivalent of GCSE's or A- Levels. This method will allow young people to increase their potential future earnings and enhance their skill sets as well as having opportunities for advancement and shadowing professionals. Apprenticeships (Rauner, 2010) also allow for the development of soft skills and the building of confidence.

1.2 NEET Youth: A Polish Perspective

In Poland rates of NEET's aged between 15-24 were by 2006 higher than the EU average for 28 countries (up to 17.5% in 2002), but they gradually decreased and since 2007 they have been below the EU average (the lowest rate was 10.5% in 2016)[3]. Rates of NEETs aged 15-17 were low and declining from 1.3% in 2002 to 0.5% in 2016. In Poland there is a legal obligation to attend school until the age of 18[4]. The vast majority of teenagers aged 15-17 continue education at an upper secondary school or receive part-time education at the employers' premises. The most difficult situations include NEETs graduating from vocational schools and in rural areas, who continue learnt habits from their parents, don't have an active approach to education and improving of competences[5]. For several years Poland had no single, comprehensive framework and strategy/policy to tackle the problem of early leavers from education and training, partially reflecting the low rate of NEETs at the age of 15-17. The issue was addressed indirectly through several policies and programmes concerning labour markets and educational systems rather than focusing on this single phenomenon[6].In the National Cohesion Strategy, young people were treated as (EMCC, 2012):

- Participants of the formal system of education who should acquire proper qualifications needed in the labour market,
- Unemployed people who should be assisted in finding a job, e.g. by improving their skills.

The implementation of the operational programmes in the years 2014-2020 has brought some solutions with instruments e.g. The Youth Guarantee programme provided measures directed at groups at risk of dropping out of education, which are implemented in the social assistance sector, mainly through the Voluntary Labour Corps (in Polish, Ochotnicze Hufce Pracy, OHP), a labour market institution supervised by the Minister of Family, Labour and Social Policy.

The Voluntary Labour Corps is an institution with a structure of more than 700 organisational units and branches operating throughout Poland. They undertake activities focusing on young

[3] Eurostat, Young people neither in employment nor in education and training by sex, age and educational attainment level (NEET rates) [edat_lfse_21].

[4] Tomaszewska-Pękała H., Marchlik P. and Wrona A. (2015), Between school and work. Vocational education and the policy against early school leaving in Poland, Educação, Sociedade and Culturas, 45, p. 80.

[5] An interview with business consultant, coach Monika Lisiecka.

[6] GHK Consulting Ltd (2011). Reducing early school leaving in the EU: Study. Brussels: European Parliament, p. 63.

people aged 15-17, providing support in order for them to acquire vocational qualifications, and the acquisition of basic social competences[7].

These measures create conditions for supplementing education, gaining qualifications, overcoming educational, social or psychosocial problems so that young people could be employed, graduate from school and courses, and function on their own in social life and in the labour market.

1.3 NEET Youth: A Spanish Perspective

NEET in Spain is referred to as Nini and it's something very negative to call or label someone. When you picture a "Nini" it is someone who doesn't really care for their future, and who doesn't have the urgent need to work.

At the turn of the millennium Spain had 5.7% of 15-17 year olds not in education or training to 4.3% in 2016. In comparison to the figure for the European Union overall, Spain has a higher number of young people not in education or employment who are aged 15-17. The global recession in 2008 had a severe impact across many countries globally.

In 2014 Spain had a youth unemployment level which stood at around 55%. Four years ago nearly one in four Spaniards aged between 18 and 29 were classed as NEET. At that time over approximately 1.7 million Spanish youth aged under 30 were out of work. In comparison according to Eurostat in 2016 Sweden had 0.9% of young people aged between 15-17 not in education or employment. The figure for Sweden was amongst the lowest compared to other countries in the European Union. This meant that more young teens were going on to study in further education or gaining employment.

There is a group of young people who cannot enter or re-enter the tertiary education system (technical-vocational or university) in Spain. The characteristics of this are usually diverse: young people with average academic achievements whose families cannot afford to pay for studies due to lack of economic capacity and who do not meet the necessary requirements to qualify for the credit system.

Another challenge is the difficulties of entering the labour market, either because of the requirement to exhibit professional experience that one does not have or the disincentive to opt for poor incomes that do not meet expectations.

[7] Ministerstwo Pracy i Polityki Społecznej, Ministerstwo Infrastruktury i Rozwoju (2014). Plan realizacji „Gwarancji dla młodzieży" w Polsce, Warszawa, p. 17.

From 2017 research by OCDE showcased (this is research done each year):

- 35% of Spanish young people aged between 25 and 34 years old didn't go further than obligatory education.
- 23.2% of young people are NEET's. That's 15% more than in other economically developed countries.
- Young people's unemployment is at 30% for youth who haven't finished their "bachillerato" (right after obligatory studies) and they have just 60% probability to find a job. Young people with higher education, have an unemployment rate of 16%.
- Young people who have studied VET (vocational education and training), have 64% probability to get a job, but only 12% of young people decide to study VET.
- Young people in Spain: 58.4% at school/high school or university, 18.5% working and 23.2% not in education, training or work.

In the various employment programmes for young people supported by Cazalla Intercultural found amongst other things that strengthening their soft skills gives very positive results. The organisation also talks about strengthening important aspects such as responsibility, punctuality, group work and planning or self-esteem. All this, together with the increase of technical skills through practical experience in a company, increases the job prospects of young people making them feel part of a team and practical experience on the job is extremely helpful in personal and professional development. On the other hand, mentoring programs, in which young people are accompanied during their training by a coach, allow them to feel accompanied in the process and visualize that they can have a real and promising future in the world of work.

The government approved in 2014 the so called 'Youth Guarantee', a programme financed by European funds and inspired by a European initiative that aimed to provide job or training opportunities for unemployed young people within a period of no more than four months. It is a programme initially developed by some European countries to facilitate training and access to employment for young people: since a young person is unemployed, no more than four months can pass without receiving a job, internship or training offer.

Apart from the 'Youth Guarantee', two other support measures for young people who are neither studying nor working can be explored:

- Job shuttles: Is a heterogeneous team of unemployed people with a dynamic, committed and supportive spirit who voluntarily access the initiative and who are coordinated by a coach, reinforce their skills, generate collective knowledge, become visible and collaborate in the achievement of a common goal: to obtain employment, whether self-employed or employed by others.

- SVE: It is a learning experience in the field of non-formal education, where young volunteers improve or acquire skills for their personal, educational and professional development and social integration.

1.4. NEET Youth: A Cypriot Perspective

Whilst across Europe, the overall NEET rate marked a rise from 10.9% in 2008 to 12% in 2015, in the case of Cyprus the percentage of NEET soared, rising from 9.4% in 2008 to 17% in 2014, a fact that indicates a relative increase of 77%, the highest relative increase in the EU, with the second highest relative increase feature being recorded in Greece and Croatia (44%). In the context of a research study, presented in the Report of Eurofound (2016), NEET population in the EU was divided into three clusters, with Cyprus being placed in the second cluster, consisting of the southern or Mediterranean countries, such as Croatia, Greece, Italy, Portugal and Spain. Also present in the second cluster was Ireland.

Countries that belong to the second cluster are characterised by a greater NEET percentage than the EU average. All the aforementioned countries have been hit very hard by the economic crisis or have the most problematic and delayed school-to-work transitions' (Eurofound, 2014). In these countries '[t]he population of NEET's is characterised by a large share of long-term unemployed and discouraged workers. This ranges from 27% in Cyprus to 46% in Croatia. In all these countries, the share of those who are NEET due to illness or disability, or family responsibilities, is well below the EU average […] Finally, the characteristics of this cluster point towards structural barriers to labour market access for young people, and challenges that hinder the successful transition of young people from school to work and in general to adulthood' (Eurofound, 2016). Nonetheless, Cyprus is one of the countries in which the percentage of those who belong to short-term unemployed or re-entrants into either the labour market or educational system make up more than 45% of the total NEET's.

	Re-entrants	Short-term unemployed	Long-term unemployed	Illness or disability	Family responsibilities	Discouraged workers	Other inactive	Total NEET rate
Austria	9.0	35.2	10.4	12.9	17.1	1.7	13.7	7.7
Belgium	12.0	30.3	17.7	5.3	8.7	1.9	24.1	12
Bulgaria	2.2	15.4	19.7	4.5	23.2	23.7	11.2	20.2
Cyprus	11.6	37.4	24.0	6.6	9.9	2.8	7.6	17
Czech Republic	3.4	37.7	18.2	3.7	27.6	0.7	8.6	8.1
Germany	12.4	28.9	14.0	9.1	19.7	0.7	15.2	6.4
Denmark	14.5	28.9	4.2	18.3	7.8	1.1	25.2	5.8
Estonia	0.0	29.7	18.2	11.3	28.1	5.5	7.2	11.7
Greece	1.0	30.7	39.7	1.7	6.6	1.0	19.3	19.1
Spain	4.3	30.0	34.6	7.6	10.7	5.0	7.8	17.1
Finland	8.8	32.8	4.6	17.9	12.0	4.2	19.6	10.2
France	15.6	33.2	19.9	5.1	8.7	2.7	14.8	11.4
Croatia	2.7	32.2	38.4	0.4	10.9	8.1	7.3	19.3
Hungary	6.9	29.0	15.3	5.8	17.6	14.1	11.3	13.6
Ireland	21.4	25.3	26.2	6.7	12.1	3.5	4.7	15.2
Italy	13.5	15.5	27.1	3.3	9.8	14.8	16.1	22.1
Lithuania	1.6	40.0	11.5	12.5	20.3	3.3	10.8	9.9
Luxembourg	29.9	37.1	12.5	2.6	8.2	0.1	9.7	6.3
Latvia	4.9	35.1	17.2	5.2	23.7	5.6	8.3	12
Malta	17.0	32.3	15.9	3.2	13.4	0.0	18.4	10.5
Netherlands	7.3	30.8	11.5	21.0	4.7	3.3	21.5	5.5
Poland	2.8	36.0	18.4	8.6	23.7	7.7	2.9	12
Portugal	6.8	34.8	31.0	6.2	5.1	7.6	8.5	12.3
Romania	0.3	20.5	14.9	2.9	16.4	14.8	30.3	17
Sweden	10.3	37.6	8.1	13.7	9.4	2.9	18.1	7.2
Slovenia	11.8	28.7	28.4	8.8	12.1	2.1	8.1	9.4
Slovakia	0.5	26.6	45.9	6.7	19.4	0.4	0.5	12.8
United Kingdom	5.3	37.4	19.3	8.4	21.2	0.5	8.0	11.9
EU28	7.8	29.8	22.0	6.8	15.4	5.8	12.5	12.5

Source: Eurofound elaboration on EU-LFS, 2013.

Figure 1.2: *Composition of NEET population aged 15-24, EU28 (2013) (%) (Source: Eurofound, 2016)*

A rather indicative element that testifies the qualitative features of NEET in a more localised context is that, Cyprus seems to be one of the countries along with Greece and Croatia, in which young people who have received a tertiary level of education (ISCED levels 5-8) are those who face the greatest risk of potentially becoming NEET. In terms of the parameter of gender, despite the fact that Eurostat data (2015) records more female than male NEET's in the EU28, with percentages reaching 12.3% and 11.7% respectively, Cyprus appears to be one of the four EU countries, along with Croatia, Finland and Luxembourg in which the share of men (55%) outweighs that of women, in the age group 15-24. Particularly, Croatia and Cyprus have recorded the greatest gender gap in Europe; in the case of Cyprus the NEET percentage among men is 4% higher than the corresponding rate for women (Eurofound, 2016).

In order to cope with the unprecedented rates of youth unemployment in the island, the Human Resource Development Authority of Cyprus, which basically constitutes a *Department of the Ministry of Labour and Social Security*, launched dozens of 'Training Programs for Unemployed and New Market Entrants', a great majority of which appeal to young people, without the competent authority proceeding to the formulation of a further clarification on whether each of the schemes appeal to 'young unemployed' or 'young NEET's.

Indicatively, some of the schemes are (Online Source: http://www.hrdauth.org.cy/):

- *Training Programs for the Unemployed*, aiming at the provision of initial (transient) or continuing training for the unemployed, with a view to substantially improving their knowledge and skills for productive integration or reintegration into employment, thus making them capable to work in occupations where there is demand for skilled labour;
- *Scheme for the employment of unemployed young graduates of secondary schools, lyceums, technical schools and post-secondary education* which provides up to two years of acquisition of work experience in enterprises/organisations;
- *Scheme for placing unemployed new graduates to gain work experience in companies/organisations.*
- *Long-term Unemployed Training Program in Enterprises / Organisations (De Minimis).*

Additionally, the Ministry *of Energy, Trade, Industry and Tourism* of Cyprus launched 'The Youth and Female Entrepreneurship Scheme', with the aim to develop, support and promote entrepreneurship among young people and women who wish to be active in various sectors of economic activity, by excluding through primary production or processing or marketing of

agricultural products, fisheries, aquaculture, wholesale and retail (Online Source: http://www.mcit.gov.cy).

The 'Youth Entrepreneurship Scheme' appeals to young people aged 20-40, while the 'Female Entrepreneurship Scheme' is for women aged 18-55. Eligible costs include buildings, equipment, training, promotion, working capital and other costs (e.g. consultancy studies for the preparation of the application, establishment of a company, architect design). The maximum eligible budget is € 140,000 for the Manufacturing sector and € 100,000 for the Services sector. The proportion of public funding is 50% of the eligible cost.

Complementary to all the above, the *Youth Board of Cyprus*[8] also aims to promote programs and actions, through the launching of a formal national youth policy for the years 2017-2022.

Its programs and services contain volunteerism and participation, Creative activeness of young people, funding opportunities which are mostly related to Youth Initiative Projects, Youth Entrepreneurship and the Erasmus+ program, provision of categorized information and Counselling Services, including e-Counselling, Help Lines, Career Counselling and Career Management Services. The *Youth Board of Cyprus* constitutes the main source of funding for youth organisations which design and apply programs that support young NEET, primarily within the context of EU programs and funds (Online Source: http://onek.org.cy/).

[8] Youth Board of Cyprus: http://onek.org.cy/

2. Games In Education

Traditional platforms, educational institutions and employment avenues have not been accessible or available for NEET youth due to multiple reasons. Many young people are not able to engage more mainstream methods and routes to employment and education. This project was based around the concept of engaging NEET youth through non-formal education.

Informal learning as a tool has often been used by several fields such as youth work, community development, community organising and community engagement (Batsleer, 2008). Informal learning is a means of teaching or sharing knowledge in non traditional environments such as youth centres for example. Informal learning has its own merits and advantages which are separate from formal learning and should be viewed as an imperative learning method in its own right (Coffield, 2000). Knowledge needs to connect with the wider community allowing the emergence and connection of knowledge to and from between traditional educational establishments and direct access to the community (Leadbeater, 2000).

Non-formal education can take place in a range of diverse environments and is related to what is significantly important to young people in their immediate surrounding rather than pre written and pre directed curriculums. Both the educator in the non formal learning arena and the learner have a role to play (Smith, 1988).

The term non-formal methods of education could be summed up as 'those educational activities organised outside the formal system and designed to serve identifiable clientele and educational objectives' (Coombs, Prosser and Ahmed, 1973), whilst being divided in four sub-categories:

- The communication-based methods, based on interaction, dialogue and mediation;
- The activity-based methods, based on experience, practice and experimentation;
- The socially-focused methods, based on partnership, teamwork and networking;
- The self-directed methods, based on creativity, discovery and responsibility [Source: Council of Europe Symposium on Non-Formal Education: Report (2001)].

Gaming is a normal part of culture for young people and games appear to be a natural channel for reaching disengaged teens: their possible usage covers motivating and engaging those who are in danger of dropping out of formal compulsory education, reengaging and reaching those who are disengaged and smoothing transitions from compulsory to post-16 engagement (Ulicsak, 2010).

NESTA (2013) recognises that the use of games in education, if appropriately planned, can help to involve NEET in training and education, including the development of their

knowledge and skills. Games can be seen as an effective method of non-formal education in working with the youngest representatives of the NEET group, neglecting compulsory education or learning, who are at risk of social exclusion. Realisation of social inclusion may be approached by using game-based dialogues, non-formal education and games to address a number of challenges facing the European Union and its individual member states (Proyer et al, 2017).

Games are becoming more readily used by educators and facilitators in youth work and are gaining focus and acceptability in the educator's community (Crookal, 2010). The use of games in education is still seen as a relatively innovative concept for many educators and requires the development of methodology and tools.

Games (Fullerton, 2014) can vary in their format and can come in the shape of board games, street games, card games, dice games, role play games and pen/paper games amongst other types. Games are very popular amongst young people and by incorporating them into informal surroundings these tools can be used to assist in positive outcomes.

2.1. Game Classification

All games are played in a synthetic world structured by specific rules, feedback mechanisms, and requisite tools to support them (Aldrich, 2009). Games may be diverse in terms of learning goals (pedagogy), the game play, mechanics and simulation of the underlying system behaviour. Games can be seen as fun engaging activities usually used for entertainment, but they may also allow people to gain exposure to a particular set of tools, motions, or ideas.

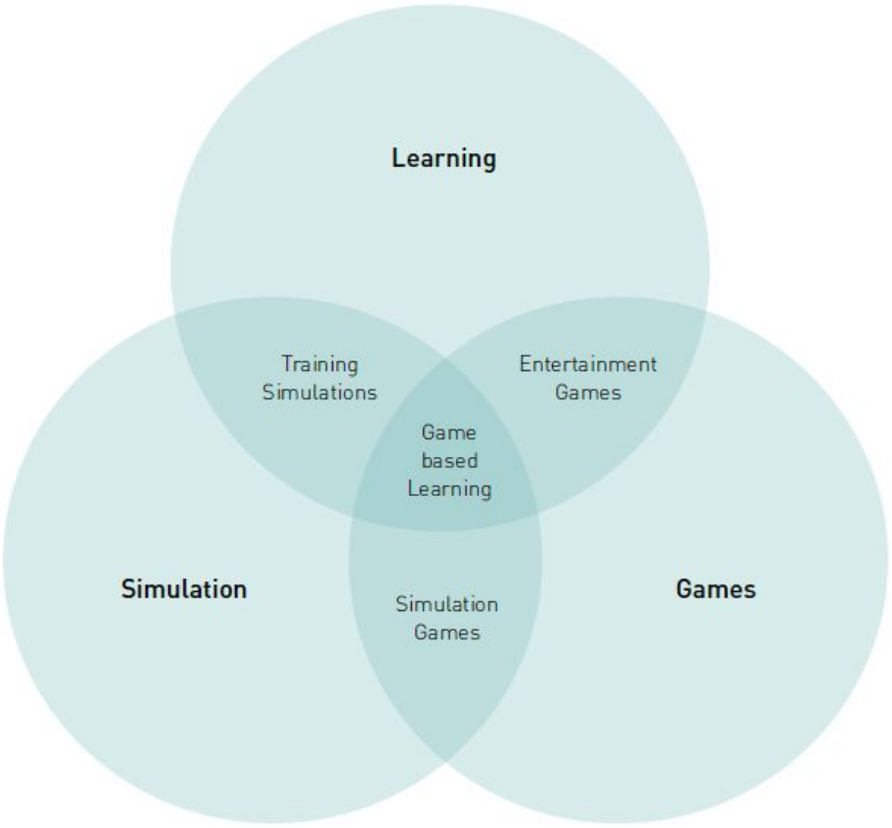

Figure 1.3: Learning, simulation and games (Source: Martens, A., Diener, H., Malo, S. (2008). Game-Based Learning with Computers – Learning, Simulations, and Games. In: Pan Z., Cheok A.D., Müller W., El Rhalibi A. (eds) Transactions on Edutainment I. Lecture Notes in Computer Science, vol 5080. Springer, Berlin, Heidelberg.)

The term 'games based learning' corresponds to the term 'serious games' used in literature and means games designed to have an impact on the target audience, which is beyond the pure entertainment aspect. They may combine instruction and game play (Bellotti, et al, 2010) by challenging and involving players in motivating learning contexts to approach, explore and overcome specific problems. Serious games can foster learning since they offer a genuine 'situated' learning experience (Van Eck, 2006) and can concretely support the 'learning by

doing' approach. It enables the development of the "soft skills" required in the world of work (such as problem-solving, communication, innovation and collaboration) and the functional skills related to particular vocations (De Grove, 2010).

Prensky (2005) pointed out types of games and determined their use: mini games (based on a trivial structure) and complex games (might be deep, takes time to prepare and use them). Each type can be useful: the first one may be fun, and occasionally useful for motivation and to teach and train facts mostly and the second one often include the pedagogical complexity and may be based on simulations.

At the same time, it is possible to point out commercial 'off the shelf games', which constitute the majority of games that are designed for and consumed as entertainment, but some of them might facilitate a range of learning and participation outcomes (and carry the stigma of being 'entertainment').

Alternatively, special-purpose games are developed specifically for learning to target particular groups and issues. They are not easy to develop, requiring skills that are not widely available. Their availability might be limited and may be distributed via professional intermediaries.

2.2. Games In Learning

Games offer an innovative approach and powerful tools to sustain education, allow you to overcome the limitations of traditional classroom learning. Informal and non-formal education and training opportunities that make use of game-based approaches could be a way of re-engaging disenfranchised youth by overturning negative experiences and emotions associated with learning (Stewart et al, 2013).

Kolb's learning cycle (Clifford and Thorpe, 2007) can be integrated into informal learning as a theoretical base to understand how people learn. Kolb's learning cycle (1984) has a four stage process which is focussed on the cognitive functions of individuals and the experiences they have:

- **Concrete Experience:** an individual experiences something new.
- **Reflection/Observation:** being able to consider the new experience you may have just gone through and start to think about it or what you observed.
- **Abstract Conceptualisation:** the reflection process allows for new ideas to be formed or could entail the reconstruction of exiting abstract concepts.

- **Active Experimentation:** the individual or learner applies what they have learnt in their environment to explore what may happen.

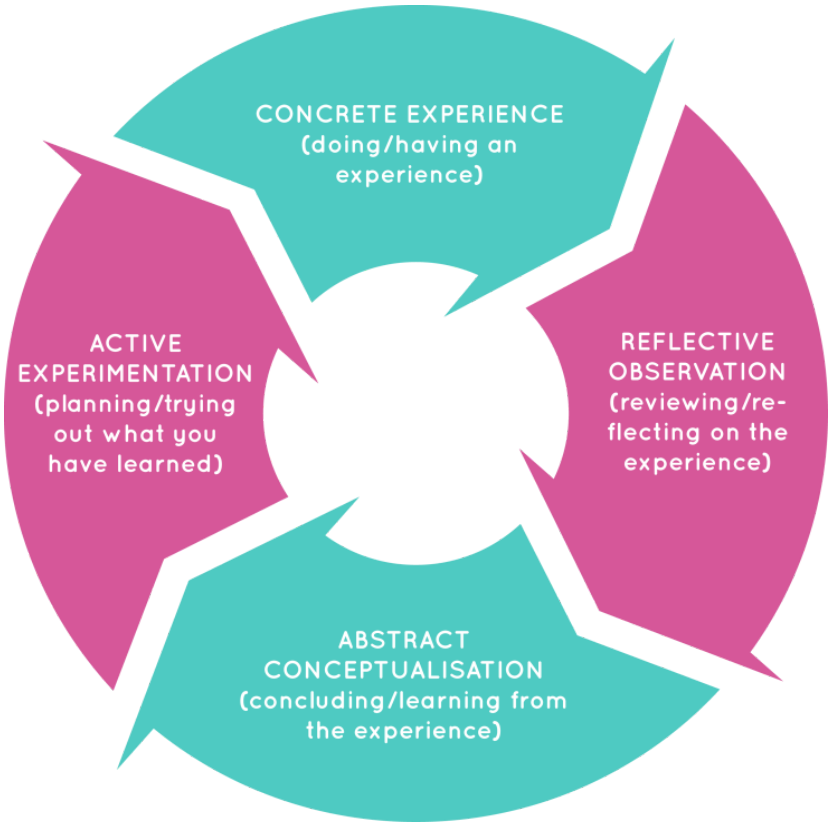

Figure 1.4: Kolb's Learning Cycle (Co Workshops, 2016)

In this context NEET youth can gain new experiences through playing new types of games which they may have not experienced before. Traditional education provides 'formalised direct (explicit) knowledge', while games help to promote the understanding of concepts and principles at an intuitive level - they take into account learning from the surrounding world's inspirations, including the use of knowledge, skills development, practical approaches to knowledge and skills in a variety of ways (Ruben, 1999).

The use of games might increase the interest and involvement of young people in matters related to a socio-professional approach in accordance with the 'learning by doing' rule. If young people engage in these games they will then observe their counterparts whilst they are actively playing and will also be able to reflect on the actions they are taking.

Games provide opportunities for young people to immerse themselves in the subject matter of the game (e. g. social issues, entrepreneurship), enhance curiosity and openness to new opportunities. Through games people can be guided to think about, explore, experience, and

reflect on complex topics and let them act in a safe and reduced way to accomplish new skills as Proyer et al (2017) discuss.

Decision-making might be easier when it is part of a game. Games provide safe, non-threatening, risk-free and fun environments where making mistakes does not equal failure (a player tries different strategies and gets 'just-in-time' feedback) and with possibility to restart a game at any point (allowing the practice of trial and error). Playing games offers a simple, stress-free solution to enhance the emotional, intellectual and social characteristics of young people. By making meaningful decisions in a safe environment and reflecting on this afterwards, game acting could be transferred into the real world, and empower people to participate in society.

Games can encourage participants to increase awareness, get them involved in new activities, which can facilitate learning and empowerment processes, build positive pro-social and intercultural behavior patterns, and strengthen entrepreneurial attitudes and key competencies of young people. Games can help young people learn new skills and abstract concepts which can then in turn be used in their daily lives, enhancing the quality of life they have and perhaps assisting them move towards their aspirations. Participants might be involved in complex issues and have opportunities for learning at their own pace and in a personal way.

Yee[9] (2006) conceptualised and developed three main components related to the motivation of individuals who play games. The three components were:

- **Achievement Component:** the need to move forward in the game, understand rules and being able to compete.
- **Social Component:** being able to interact and communicate with others, potentially playing in a group environment or virtual group context, desire to make connections with others.
- **Immersion Component:** using gaming platforms and avenues as tools for fantasy and escapism and being able to fully become involved in the game and go deep.

In addition to psychological elements some research has shown gamers also show positive characteristics such as improved spatial awareness and visual attention amongst other areas[10].

[9] Yee, Nick. "Motivations for Play in Online Games." CyberPsychology and& Behavior 9.6 (2006): 772-75.

[10] Subrahmanyam, Kaveri, and Greenfield, Patricia M. "Effect of video game practice on spatial skills in girls and boys." Journal of Applied Developmental Psychology 15.1 (1994): 13-32.

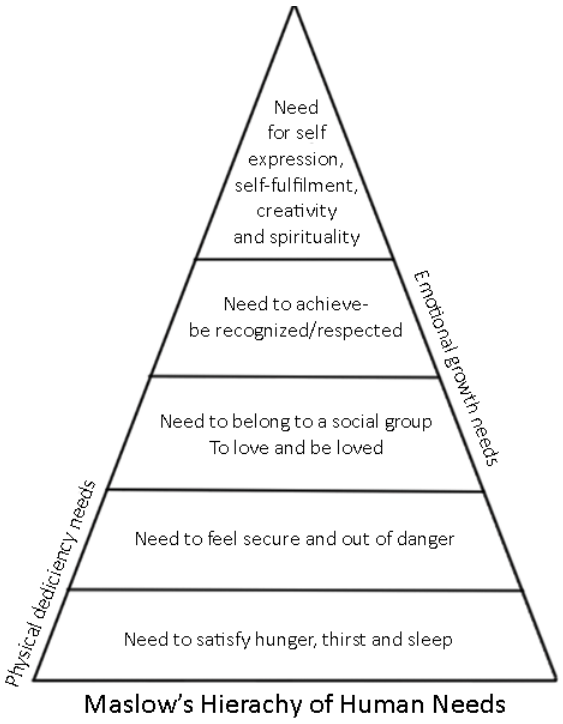

Figure 1.5: Maslow's Hierarchy of Needs (King, 2009)

Siegler and Ramani (2009) showcase how numerical board games can impact the development of children from poorer backgrounds. When children are presented the opportunity to play numerical board games there understanding of numbers assists their development and can help boost their economic positioning later in life[11]. This is an important finding particularly as many NEET young people across the European Union come from poorer and less affluent backgrounds as well as socially and economically deprived communities. Introducing board games which have elements of numeracy and economics to NEET youth may well boost their knowledge and allow them to become motivated and psychologically positioned to pursue improving their economic activity in society.

[11] "The numerical knowledge of children from low-income backgrounds trails behind that of peers from middle-income backgrounds even before the children enter school. This gap may reflect differing prior experience with informal numerical activities, such as numerical board games. Experiment 1 indicated that the numerical magnitude knowledge of preschoolers from low-income families lagged behind that of peers from more affluent backgrounds. Experiment 2 indicated that playing a simple numerical board game for four 15-minute sessions eliminated the differences in numerical estimation proficiency. Playing games that substituted colours for numbers did not have this effect. Thus, playing numerical board games offers an inexpensive means for reducing the gap in numerical knowledge that separates less and more affluent children when they begin school".

Learning outcomes from gaming involve improvement of knowledge, cognitive, motor and affective communication skills (Wouters et al, 2009). Games can help to address the major educational challenges of (Nesta, 2013):

- Engagement – players to step into different roles, confront a problem, make meaningful choices and explore the consequences of these choices,
- Literacy levels due to stagnant foundational literacy skills such as reading among particular target groups.
- Job/skills gaps – mastering skills such as problem solving, systems thinking, planning and execution, creativity and collaboration.

Games do not amount to a direct intervention for the avoidance of poverty or loss of employment. Changing attitudes towards society and becoming professionally active depends on a person's mental condition, life situation, environment and even their type of personality. It should be taken into account that lack of education, employment, motivation or ambition and ignorance of a person's strengths may discourage them to undertake life changes.

2.3. Games and CLIL

Communication is strengthened through the medium of linguistic immersion which is a content and language integrated learning approach (CLIL). CLIL has become imperative in 'learning by doing' and in particular settings where there is a focus on bilingual education for example where multiple languages are taught (Mehisto et al, 2008). CLIL has risen in popularity amongst educators as a tool and method where content and language immersion come together.

Coyle et al (2010) defines CLIL as: "a dual focused educational approach in which an additional language is used for the learning and teaching of both content and language. That is, in the teaching and learning process, there is a focus not only on content and not only on language. Each is interwoven, even if the emphasis is greater on one or the other at a given time." The various CLIL methodologies can be categorised in two forms of engagement which are:

- Content Driven- primary aim is to highlight skills and the subject content.
- Language Driven- primary aim is to focus on learning the language.

CLIL is an important tool in expanding and developing individuals who are aware of their surroundings and able to adjust to changes in their environments. Also CLIL is an active

mental process which promotes 'learning by doing' and allows individuals to make sense of their surroundings and wider society.

In 1995 the European Commission produced a white paper on teaching and learning. This paper discussed the idea of teaching and using multiple languages as a benefit which can better prepare citizens to enter the jobs market. This would also create a wider sense of belonging outside of localised geographical spaces bringing into consideration global perspectives, in particular a Europe wide focus.

CLIL is designed to enhance language skills and abilities. This methodology empowers individuals to grow and develop cross disciplinary skills they can use in wider scenarios. By using games as a method of engaging NEET youth across Europe these young people have opportunities to build their communication skills through language.

Games involving CLIL will allow for positive perspectives and attitudes to develop for the young people who use it. Young NEET people can develop their skills, abilities and language acquisition. Developing powerful communication techniques and the ability to portray a message or viewpoint will assist young NEET's in creating more opportunities for change and positive development. This will also put young people in a better position to obtain employment or enter higher education.

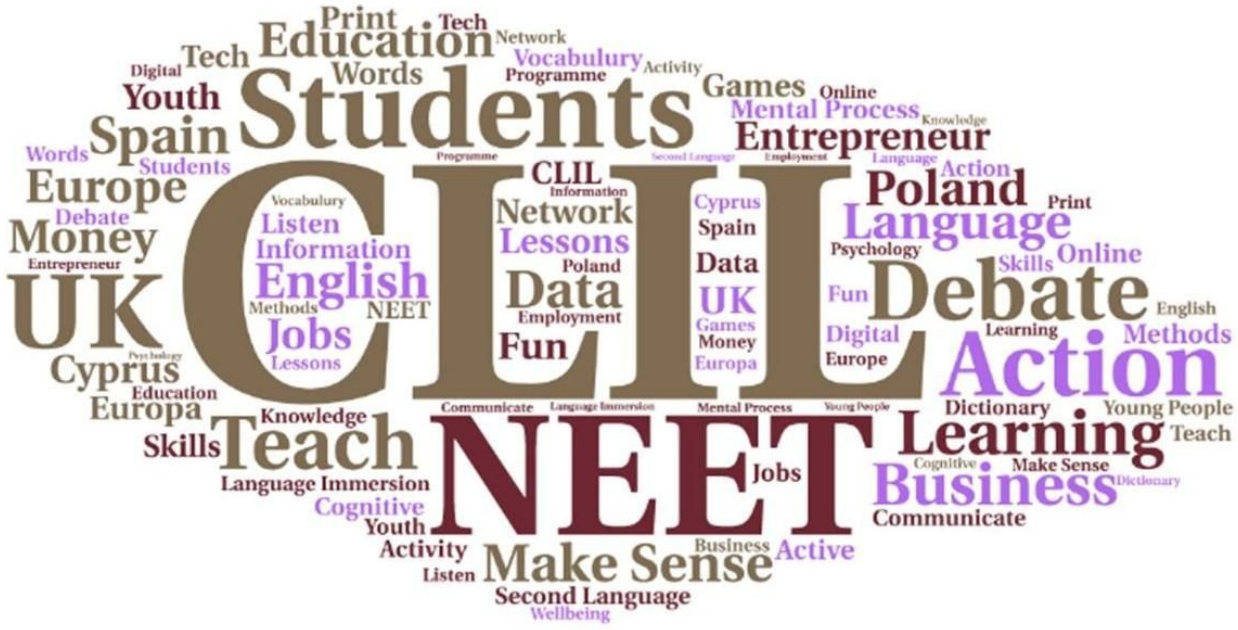

Figure 1.6: CLIL Word Cloud

3. Challenges For Using Games In Education

One shouldn't just assume that an approach based on 'games' will automatically work. The use of games in education is still seen as a relatively innovative concept for many educators. Limited research has been conducted to investigate whether serious games could represent an effective intervention to engage and support young NEET people to continue their learning. However, drawing from the literature about games and disengaged young people, it is possible to see potential in exploring these avenues further.

Many examples of game-based learning can be found, e.g. playful aspects of learning processes, or support of learning processes by integrating the motivating aspects of games. There is still a lack of good practices to increase mutual understanding of how best to use games in education, available literature is not sufficiently addressing the issue of introduction into classes and does not provide comprehensive instructions for educators (Axe and Routledge, 2011).

In terms of educational methods and tools, factors encouraging the use of games in active education (such as attitudes, knowledge and skills) are still being shaped. Gaming and its reflection, opinions, and behaviour, might be considered and new strategies could be worked out. Williamson points out the need to support educators in integrating games into the education process (Williamson, 2009) where the requirement is to raise awareness, to know the subject matter, to exchange experiences on the application of games.

NESTA points to the need to create a friendly space ("laboratory") for testing new approaches to the design and use of games in education. The prerequisite for such an approach is to benefit from extensive expertise from educators, learners, stakeholders, game developers, designers and the community. The use of knowledge must take place in a planned, communicative and collaborative way to create, design and test games in educational applications.

The use of games requires the development of approaches, as well as strategic and operational implementation by stakeholders. It is worth taking advantage of best practices in different countries, taking into account experiences in active education and stakeholder involvement – therefore there is a need to transfer good practices.

It is important to develop approaches considering suitable conditions and context taking into account:

- in-depth research into gaming practices of at-risk groups: what are they playing, how, where, when etc.
- implementation by intermediary organisations which have a trust relationship with the target audience and guide them,
- carefully framing the game-approach considering the needs and expectations of the target group.

The choice of games is complex and needs considering:

- a variety of elements that constitute games as game mechanics and game-based thinking (MDA = Mechanics, Dynamics, Aesthetics)[12],
- a variety of forms, including the use of narratives to change the context around a typical activity, the creation of competition,
- necessity to take into account the principles of including games in the education process,
- lack of knowledge about practical application among potential stakeholders (educator, practitioners, users),
- growing awareness of the need to involve players in the design process (use of co-design with end users) as a way to adjust them to people's needs and mitigate knowledge gaps of designers.

Risk factors in terms of games usage include [the list, inter alia, on the basis of Stewart et al, 2013]:

Situations that may make it impossible or difficult to achieve the target	Description of actions to be taken in the risk situation (prevention / minimisation)
Difficulties in reaching NEET youth aged 15-17	- cooperation and implementation by intermediary organizations dealing with youth problems which have a trust relationship with the target audience and guide them, - organising meetings with NEET young people aged 15-17 to get to know the problems and needs of the supported group.

[12] Grywalizacja 24. MDA – model opisywania gier i grywlizacji, http://grywalizacja24.pl/mda-model-opisywania-gier-i-grywlizacji

Lack of interest of intermediaries due to low awareness, negative stereotypes	- convincing intermediaries of the added value of games or other digital tools for empowerment - development of awareness and know how on how to use games for inclusion and empowerment or other participatory goals - integrate the use of games as a tool into the existing curricula of educators (they could be offered more experience with games as part of their professional development).
Lack of interest of NEET's	framing the game-approach considering the needs and expectations of the target group – in-depth research into gaming practices of at-risk groups: what are they playing, how, where, when etc.
Insufficient knowledge of the games	using as many channels as possible for obtaining information on games (internet, conversations, visits to institutions, events), consulting specialists.
Little or no compatibility between games and curriculum/class structure	to exchange experiences on the application of games (good practices) to increase mutual understanding of how best to use games in education in order to know the subject matter.
Financial problems related to obtaining resources - games, lack of technical support, suitable computers	- analysis of the possibilities of renting games and choosing those which are competitively priced, free to print games, etc, - enhancing the compatibility of games and the education process, taking functional and structural constraints of education into account.
complexity of use (both of the game and of the implementation)	- considering games which are compatible to practices of educators, - creating a friendly space ("laboratory") for testing new approaches to the design and use of games in education.

3.1. Procedures Of Using Games

More and more teachers are trying to incorporate new methods and tools into the classrooms that contribute to improving the learning experience of their students. Terms such as gamification or neuro-education (also neuro-learning) are already frequently heard in educational settings. The first consists, in a very brief way, in applying the dynamics of the game to boost students' motivation; the second, based on neuroscience, in knowing how our brain works, how it evolves and how we learn, to apply it in classrooms.

On the other hand, one of the most pursued teaching objectives is usually fun in learning and to make teaching something enjoyable and to pass on knowledge to the student. If the game is a voluntary, entertaining and playful activity, why not turn it into a didactic medium? We must also bear in mind that perhaps the most important element of any game is motivation, which helps the student to quickly and effectively capture the knowledge that educators want to teach them. For all of these reasons, play can undoubtedly not only be an educational resource, it must be.

The application of a game is a challenging task that requires a lot of knowledge and a variety of skills. Game trainers not only have to deal with the inherent technical complexity of game design but they are also required to have the ability to interweave learning activities in a way that is enjoyable and educationally effective at the same time.

Games that make use of Non Formal Educational (NFE) tools encourage people to take charge of their own leaning and development[13]. For instance, the educators can adapt the game to their particular cultural context through a process of discussion with local people. Additionally, they can evaluate other educational games that have been used successfully in the past and create their own guidelines or games that address specifically the needs of the young people they work with.

Exploring Games with a group of NEET youth would allow an opportunity and facilitate the possibility for young people to actively become involved in the process and improve their skills as well as their awareness around being economically active.

The activity might be planned around a session where multiple board games could be played which allow for young people to actively participate, interact, have fun, learn, reflect and evaluate. Competences gained by this session might involve: communication, self esteem, motivation, confidence, economic awareness, team working, problem solving.

[13] Games and NFE can be used in formal educational systems (schools) as a complementary educational material.

The session would be in a non formal manner which is inductive to a more relaxed atmosphere which will encourage participation. The facilitator's role would be to allow and create the environment for young people to feel at ease and participate. As the young people play the games the facilitator would ask questions and encourage communication between participants without leading conversations. In this manner young people would become empowered to act independently and encouraged to communicate between themselves.

After the games are played young people would be asked to evaluate the session by writing their feelings about the session on sticky notes and attaching them to a flip chart.

Basic rules of using games[14]:

- Adapt the game to the local cultural context or the target group.
- Use energizers before each game to bring participants of the game closer.
- Provide simple instructions with examples or scenarios that explain the game.
- Demonstrate the importance of the game along with its main educational aim. This will trigger the curiosity of participants to play the game.
- Divide participants into groups according to sector or area of interest.
- Divide the group into small groups so everyone participates and is involved in the process of the game. For example, follow the instructions regarding the 'Recommended number of Players'. Additionally, mix participants in each working group using specific criteria such as different cultures, age, gender, educational background. This will enhance the diversity in learning.
- Educators ask help from participants, trainers, teachers or anyone who has played the game. For instance, they can supervise and support the process and consequently provide feedback about your performance.
- Inform participants about the milestones of the educational game, also about its particularities. The circumstances that the game might become complex? Playing time? What to avoid doing? What requires extra attention?
- Experiment each step of the game several times with participants before the 'official' start of the game. This will help them comprehend the game and enjoy it.
- Educators ask participants if they have any questions about the game.
- Reflect on the learning outcomes of the game. Educators can prepare the main questions for 'reflection' before the game starts and by the end of the game they can add questions for 'reflection' based on the topic discussed by participants.

[14] 'The rules of using the games' are indicational. Therefore, considering the aim of the game, new rules can emerge or be abolished.

- Encourage participants to play the educational game on their own by providing any additional information.

Conditions of success in using games in the classroom / in non-formal and informal learning settings include (Stewart et al, 2013):

- positive attitude towards gaming,
- compatibility between games and curriculum/class structure (perceived fit of games with the curriculum in general and the structure of classes),
- understanding of the needs of users,
- an understanding of perceived learning opportunities and usefulness,
- adaptation to the possibilities of participants, including ease of use (both of the game and of the implementation) - when teachers see games as more compatible to their teaching practices, are able to handle the game as well as putting it to use,
- financial resources for game acquisition, training.

As people move through the educational establishments and age the game settings change into formal educational settings which in places and at times can be very rigid. The FIDGE (Fuzzified Instructional Design Development of Game Like Learning Environments) model (Kaplan and Cagiltay, 2006) was developed in order to assist in the creation of game like learning environments. The FIDGE model is made up of four different sections which come together to produce a framework. The four aspects to this model are analysis, design, development and evaluation, as well as an additional pre analysis phase.

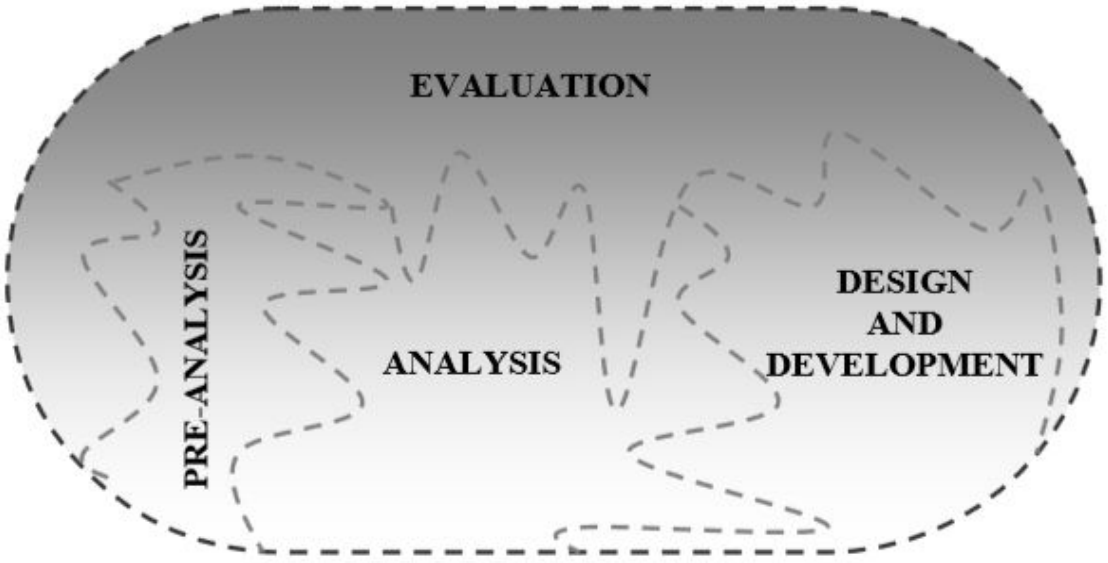

Figure 1.7: The main stages in Kaplan and Cagiltay's (2006) FIDGE Model,

The core values around this model focus on creating mechanisms for motivation, having an experienced game player and lead and the development of strong communication methods. In addition to this their needs to be consideration of flexibility, inclusive participation and opportunities for evaluation. The pre analysis stage allows designers to consider how to propose or deliver games. After this the model looks at the analysis stage which may include areas such as content analysis and risk analysis in relation to the games. The design stage allows for testing, prototypes, feedback and learning assessments. The final stage of the FIDGE model is around the evaluation process.

The non linear nature and fuzzy elements make the FIDGE model a useful tool to potentially use when developing games or preparing and using games with specific target groups in this instance NEET youth across Europe.

3.2. How Games Are Being Used In Partner Organisations?

Citizens in Power (CIP) have been developing innovative educational tools, which seek to enhance both skills and competences of young NEET's. Also by using educational tools, it is implied that a series of methodologically designed activities, as a tool for learning can be multiple things i.e. a simulation exercise such as a role-play and a workshop that fosters creativity and raises imaginary or fictional features.

An educational tool could be a game, an interactive e-video, a story, a discussion, a manufacture, a film, a photo or picture accompanied with a text, or even a combination of some (or all) of the previously mentioned things, always given in a logical order and in a way that in fact facilitates the learning experience.

Praxis Europe in the UK also administers games within their organisation. The games vary in format from board games to ice breaker fun games. The games are used in non formal environments in the UK and internationally. Using games:

- Builds confidence for young people
- Allows engagement and communication between individuals
- Creates a welcoming and relaxed environment
- Builds self-esteem
- Motivates youth to take action and participate
- Encourages economic participation

Cazalla Intercultural is involved in the project Comp-pass, led by Pistes Solidaires and it is targeted towards NEET's. In this project, they have used a game to help them discover more about themselves and prepare for developing their future opportunities. This is not exactly a game, but rather a gamified method to present activities. It's like the Snake and Ladders game, with a board with different boxes that lead to the end. Each day the group completed six activities.

They also used role playing games as a way to help young people develop some competences like empathy, leadership, decision making and teamwork.

Finally, they set up an Escape Room where young people could try their problem solving, communication and teamwork. This was an exciting way for them to move on in life and get motivation. They relied a lot on this initiative and young people were able to increase their self esteem and learn how to prepare for new challenges.

Fundacja Centrum Aktywności Twórczej (CAT) uses board games while working with kids, youth and NEET's because, they believe that they are a great way to spend free time, an

alternative to television, computers and smartphones. For over two years, the CAT Foundation has been organising workshops consisting of board games for local people once a week. Meetings have been conducted by EVS volunteers and local volunteers to provide good fun, allow stress relief and exploration of unknown roles. They are not only designed to entertain, but equally develop imagination and teach - anticipation, decision making and responsibility. The workshops have helped to develop social and interpersonal skills of participants.

A good practical example of using an entrepreneurial game is Chłopska Szkoła Biznesu (Peasant Business School), which was tested during the CHARNGER project. This game allowed a group of 20 participants to see the mechanisms of the free market economy, promoted entrepreneurial attitude, developed social competences of players and integrated the group very well.

4. Board Games In Education

Board games are amongst the most popular and common forms of games used by individuals and families. Board games have recently become part of the pedagogical process: in teaching manuals, "new" concepts such as gamification are appearing in the teaching manuals. The use of board games might bring a lot of benefits:

- **Playing board games improves analysis capacity and stimulates the brain:** This activity is a wonderful exercise for the brain because playing stimulates brain areas that are responsible for complex thought and memory formation for both – youngsters and adults, it assists in practicing essential cognitive skills, such as problem solving and decision making. On the other hand they also help them to develop their analytical skills while having fun and they do it because they will have to think about which throw to make or which plan to undertake in order to be closer to winning.
- **They are social:** The foundation of playing board games is, cooperation. It blooms when it's "handled" by teamwork. It brings strangers, old friends and co-workers together. Playing board games is the perfect way to spend time with peers and strengthen bonds with other human-beings. Board games help people to interact, socialise and have fun. People who are absolute strangers can quickly become comfortable with each other because they are, after all, just playing. Playing a board game teaches vital social skills. There is an exciting atmosphere of communication and competition that encourages verbal expression while cultivating traits of patience and persistence.
- **A reminder of what it's like to live in a real world (kind of):** One of the most amazing benefits of playing board games is that such traditional methods remove people from the digital world. Board games engage in activities that do not involve staring at a smartphone, tablet or computer screen.
- **Serve to learn to tolerate frustration:** This is another benefit that these games bring because they serve to showcase that you don't always win and that defeats must also be accepted, teaching them "sportsmanship" and using this to strive and concentrate more for future game play.
- **Develop work memory and concentration:** Among the set of advantages that board games offer there is also the fact that many of them help participants to improve their concentration and memory and this is something that will help them to do the same for studies, for example.
- **Develop decision-making skills:** It goes without saying that enjoying this type of entertainment is also a way for youngsters, from an early age and based on the situations they face in each game, to begin to learn how to think about how to solve

certain obstacles that appear in their paths and to make decisions about them. This, in turn, will also help them to accept the consequences of these decisions.

- **Board games enhance creativity and self-confidence:** Playing board games is a perfect opportunity to connect and open up, it also helps to display a creative side of personality in a non-intrusive or arrogant way, which can be very beneficial for people with different characteristics.

4.1. Types Of Games

Games are used for learning psychomotor and logical skills in kindergartens – "Hello Sunshine!", "Roll and Play", "Bugsy", in the teaching of mathematics in primary schools – "Mathdice", "Battleship", "Addendum", in the development of research skills or in the implementation of cooperative mechanics between groups. In these cases, the educator who wishes to use board games as a pedagogical resource must, however, be able to choose the type of game the students need. The same games may not be used in primary and secondary education, as well as different games will be chosen according to the needs of the student body.

We can differentiate between many types of games, as they are grouped according to different criteria. According to the components of the game that intervene, we can classify them in the following way:

- **Dice games**: In which the use of dice is essential for the execution of the game. Here we can group "the goose game" and as modern games we have the King of Tokyo or also in the game Risk, in which the use of dice is decisive.
- **Games of counters and tokens**: These games are played with counters that are the ones that give value to the game.
- **Card games**: In these types of games you will find a wide variety with the common factor of using the cards as a base. Then we can find very different games such as the "Citadels", where the cards represent the characters and districts to build or the game "Coloretto", in which the cards carry drawings of chameleons of colors that will have to be grouped together to add points.
- **Board games**: In this category, you will find the vast majority of all types of games. We can make a subcategory between traditional and modern or contemporary and among the traditional ones are chess or checkers. Examples of modern board games include "Settlers of Catan" or "Ticket to Ride".

We can say that this classification was used for traditional board games. However, with the new generations, countless games have been born. We can explore what kind of board games are common in contemporary society:

- **Thematic Games (Ameritrash**): In these types of games the theme is the most important thing. The content, the material, the setting, must be faithful to the theme. They can combine thumbnails with cards or boards. The mechanics of the game are usually simpler and the luck factor will be very representative. Here we can find games like the “Imperial Assault” of Star Wars or the famous Dungeons and Dragons with different editions and adventures.
- **European Games (Eurogames):** Born possibly to eliminate negative aspects of many board games such as long duration and elimination of characters. These are games that tend to engage people who haven't played much before. Examples of this are games like “Agricola” and “Ticket to Ride”.
- **Wargames:** These are games in which you experience battles, wars inspired or not in reality. Examples: "Warhammer 40K" or the entire "Battlelore saga”. They also consist of very realistic miniatures.
- **Abstract Games**: It doesn't have a theme, they don't describe a story. These are simple games in which there is usually more strategy than luck. For example, "Abalone".
- **Party Games:** These are games for multiple players where the most important thing is fun and entertainment. Among the most traditional, we find the famous Party and CO or Taboo. In addition, in this new era of board games we have very different party games such as all the sagas of the game Time's Up!, or Jungle Speed.
- **Fillers:** They are fast, simple games but without losing the fun and value of the game. For example, “Sushi Go” or “Magic Maze”.

4.2. The Role Of Board Games

We can define a series of skills to develop depending on the type of game we use. For example, opposition games – “Munchkin”, “Ticket to ride” and “Carcassonne” - work on concepts such as critical thinking and in most cases, negotiation skills. Cooperative games – “Pandemic”, “Forbidden Desert” or “Colditz's Escape” - allow the educator to work in communicative and group work aspects, as well as fostering leadership and dialogue as a source of conflict resolution. Concepts such as solidarity, coordination and the supremacy of the common over the individual are values that should reign in the student's personal life in the future and in their family and professional relationships.

What specific competences can the different types of board games develop? On a general level and continuing with the aim of illustrating with examples the different teachings for which board games can serve us, we find that they can simply and per se be a source of knowledge. Games such as the "Gloria Trails", "Twilight Struggle", "May or "Chrononauts" are an inexhaustible source of historical knowledge, thanks to the recreation of real events with enough fidelity.

The increasingly popular "Dixit", in which players invent stories - just like "Once Upon a Time" or "Story Cubes" - undoubtedly develops the student's creative capacity, as well as simple variations of its rules can encourage the development of memory or the learning of other languages.

Resource management, negotiation skills, spatial projection and a long-term perspective are skills to be developed in the so-called Eurogames, such as "The Settlers of Catan", "Agricola" or "Puerto Rico". It is essential to highlight the true educational potential of these games: the creation of a resource-generating subsystem that players have to manage optimally, negotiating with each other. With an Eurogame, students develop their capacity to manage, plan, elaborate and modify strategies in the short and long term; capacities that will be moderated by the influence of more or less elevated chance, the action of other players and the existence of mutable objectives. In short, strategic thinking is strengthened. If we are able to make a young elementary student develop this ability, we will have achieved a much greater achievement than we can imagine, since, once installed, strategic thinking remains and influences all decisions in the student's life. This is why games of this kind fit in perfectly - with their adaptations and exceptions - at all levels of education, especially in secondary school, where students experience a change in the development of mathematics, logic or project management.

5. Dictionary and Glossary

A

Abstract strategy game:

n. 1) A game generally limited to two players and perfect information (i.e. no randomness) often with incidental or irrelevant themes. (Chess does have a theme, but it can be ignored. A bishop is just the name of a piece that moves diagonally)

2) A game with no theme.

Ameritrash:

n. A catchphrase for "American style board games". In general, this means games that emphasize a highly developed theme, player to player conflict, and usually feature a moderate to high level of luck. Examples of classic Ameritrash games include Axis and Allies, Dune, Cosmic Encounter, Talisman, and Twilight Imperium.

Area control game:

n. A type of game where players score for having the most pieces in particular areas of the board. Examples: El Grande, San Marco, Louis XIV.

Auction game:

n. A game that features players bidding on resources as the main mechanism. Also called a bidding game. Examples: Modern Art, Ra.

B

BGG:

n. A short form used when referring to this website BoardGameGeek. The short URL for BoardGameGeek is bgg.cc.

Balance:

1. n. The way in which elements of a game are equalized relative to each player. Often balance is established by giving all players similar starting positions and maintained by using mechanisms to hurt the apparent leader or help the likely loser.

2. n. The state of a game where equally skilled players have a roughly equal chance of winning the game regardless of starting position, turn order, etc. Does not imply equality

between the sides--a game like Ogre, where one side has a single huge tank vs. a side with many small ones can be considered balanced if both sides have an equal chance of winning.

3. v. To modify the opening setup of a game in order to create a more equal starting position. Bidding for sides and the pie rule are common ways of balancing a game.

Bidding game:

n. See auction game.

Bluff:

v. To give a false impression of the value of hidden items in one's possession (such as cards) or one's intentions. This can either be explicitly by direct statement or implicitly through actions in the game. Poker is the best known bluffing game.

C

Card drafting:

n. a game mechanic where the primary way players acquire cards is by selecting them from a face up display. Designer Alan R. Moon has designed many games using this mechanic. Examples: Union Pacific, Freight Train, Ticket to Ride, Alhambra, Thurn and Taxis.

n. a game mechanism where players select cards from a subset of the available cards to form a deck or hand or to select the next card to play. Examples: Fairy Tale, 7 Wonders, and Agricola (variant), where a hand of cards is passed around and players select individual cards before passing the cards remaining in the hand. Magic: The Gathering (multiple variants) and Race for the Galaxy (variant) where players draft cards to form decks that they then use to play the game.

Cooperative games:

Games where all players work together on the same team, trying to beat the built-in artificial intelligence of the game system. Examples include, Pandemic and Castle Panic.

D

D6:

n. Common abbreviation for 'six-sided die'. Similarly D8 refers to 'eight-sided die'. d10, d12, and d20 are also common terms. A pair of six-sided dice is sometimes called 2D6. These abbreviations are most common in RPGs and wargames.

Dice game:

A dice game is a game where rolling dice is a primary feature. Examples of dice games include Can't Stop, Excape, and Sharp Shooters. Merely because a game has dice does not make it a dice game, the game must have its primary focus on rolling the dice for game-play.

Dungeon crawl:

A type of scenario in fantasy role-playing games in which heroes navigate a labyrinthine environment, battling various monsters, and looting any treasure they may find. Examples include, Mice and Mystics, Descent: Journeys in the Dark (Second Edition) and Claustrophobia.

E

Economic game:

n. A game that models a micro-economic (i.e. business or industry) or macro-economic (i.e. nation or colony) system. Typically, players will have to invest in various factors of production: capital improvements (like power plants, RR track, settlements and cities), raw materials/resources (fuel, wheat/sheep/wood/brick/rock) and labor, in order to gain income, which is then re-invested into more factors of production to produce more income, etc. Money is NOT always present in an economic game, but it often is. Likewise the presence of money may not necessarily indicate an economic game. Examples: 1830: Railways and Robber Barons, Monopoly, Puerto Rico and Catan.

Euro / eurogame:

n. synonym for German game this term emphasizes the more frequent publication of German-style games in other countries in Europe.

F

Family game:

n. A game that typically has simple rules, a short playing time, relatively high levels of abstraction and player interaction, and requires three or more players. A large percentage of these games originate in Germany.

Filler:

n. A game with very simple rules and an extremely short playing-time. This type of game is frequently used between heavier games.

G

Game system:

n. A set of components and/or rules that are intended to be used to create games. Game systems are listed under Games by equipment.

Gamer:

n. A person that likes to spend most of his or her free time playing games.

H

Heavy:

adj. Having very complex rules and/or complex strategies that require deep thought, careful planning, and long playing times.

Hex:

n. Short for hexagon. Hexes are a regular six-sided shape that can entirely be used to cover a flat plane without leaving gaps or having adjacent shapes meet only at a point. Thus they are commonly used in game boards (especially for wargames).

K

Kingmaker:

n. A player, himself in a losing position, that has the power to decide who will win a given game.

L

Light:

adj. Having very simple rules and strategies that do not require deep thought. Also can be used to describe a game with an extremely short playing time. (See also filler, opener, closer, and beer and pretzels game).

Luck:

n. A result of randomness giving one or more players an advantage within a game.

M

Majority control game:

n. A type of game where players score for having the most items of a particular type (such as stock in various companies). (North Americans might consider this a misnomer due to their distinction of plurality/majority where other countries might use majority/absolute majority.) Examples: Union Pacific, Acquire, Freight Train.

Mechanism:

n. Part of a game's rule system that covers one general or specific aspect of the game.

Meeples:

n. "Meeples" is a term that describes anthropomorphic playing pieces (image) in games, originally used to describe those used in Carcassonne. It is now more broadly used to refer to nearly any pawn or figure in a game. It is believed that the term was first used by Alison Hansel as an ad-hoc abbreviation for "my people", as noted in this 2001 session report and described in detail in this history.

Miniatures game:

n. A type of wargame that uses small three-dimensional lead or plastic figurines to represent military units to represent tactical-level conflict. Often these games have a high level of simulation or re-creation. Often such a game is not played on a board with marked spaces, but directly on the table or on model terrain and the determination of distances to be moved or fired is done by using a measuring tape or stick. (Wings of War even without physical miniatures) is a good example--the maneuver cards are used to measure the movement of each plane.

N

Negotiation game:

n. A game in which players make deals and trade resources or favors as the main mechanism. Diplomacy is perhaps the best example of this type of game. Negotiation is one of the game categories used at BoardGameGeek.com.

P

Party game:

n. A game that is designed for large groups of people and emphasizes social interaction, creativity, and/or volubility. Examples: Taboo, Charades

Player interaction:

n. The degree and frequency with which players can affect each other during a game. High player interaction can reduce a game's downtime. Games with little or no direct player interaction are sometimes referred to as Multiplayer Solitaires.

Playtest:

v. To examine the rules of and play a prototype game in order to find possible improvements and determine its viability.

PnP:

n. Print and Play. Print and Play games or expansions are files that contain artwork (boards/cards/etc.) and rules that are made available on the Internet. Anyone who wishes to may download them, print them out and play them.

PvP:

Player versus Player.

R

Random:

n. –ness adj. When events or players' actions in a game are very unpredictable. Often players will have little, if any, control over the elements that control their performance in the game.

Replay value:

n. A game's capacity to remain entertaining after playing several times.

RPG:

n. Abbreviation for Role-Playing Game, in which a gamemaster creates a progressive storyline and other players control the characters within the story. Example: Dungeons and Dragons.

S

Set-up:

n. The first time period in a game, during which players ready all the components that will be needed for playing.

Simulation:

n. A game that puts major emphasis on accurately depicting historical reality.

Strategy:

n. 1. The plan that a player uses in a game. adj –ic. 2. Requiring gaming decisions based on long-range goals. 3. Strategic: In a wargaming sense, a large scale game in which units represent large military formations (brigades and larger) over a wide ranging area (like a nation or continent). Typically these games have a high level of abstraction and a low level of detail to depict conflict. Such a game depicts an entire war or a major campaign.

T

Thematic Game:

These are games that emphasize a highly developed theme, player to player conflict, and usually feature a moderate to high level of luck. Examples of classic thematic games include Axis and Allies, Dune, Cosmic Encounter, Talisman, and Twilight Imperium.

Theme:

n. 1. The topic or subject matter of a game. adj –atic. 2. Having rules and mechanics based on assumptions regarding the subject matter of the game. Often considered the opposite of abstract.

Tile-laying game:

n. A game that features the placement of components onto a playing surface (rather than moving components along the playing surface) as the main mechanism. Examples: Carcassonne, Samurai.

V

VP:

n. Victory Points. Sometimes pronounced either "Veeps" or "Vee Pees". Plural can be spelled VP's, VPs or just VP. Points are accumulated for completing various actions which count towards victory. Some games use the term "points" to refer to other factors--movement points, action points, etc.

W

Wargame:

n. A game in which players put military units or military-type units in direct or indirect conflict with each other. The goal of these games is typically annihilation of opponents and/or the attainment of certain strategic conditions. These types of games will often have high thematic content and a varying degree of abstraction. (See also miniatures game). Wargames are subdivided into three general scales: Strategic, Operational and Tactical.

Worker placement:

n. A term used to describe the game mechanic which involves a "token-based, turn-limited, locking action selection menu." Players, in turn order, place tokens (aka workers) to select various actions presented on a board, cards, tiles, etc. Once an action is selected, it usually cannot be selected again on that round. Often players may think of this as a supervisor deploying workers on various jobs. A very popular game mechanic used in many recent games such as: Agricola, Caylus, Stone Age, Pillars of the Earth, etc.

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