

'New demands, new risks.. new policies?'

A planevaluation on the new demands, new social risks and new social risk groups of the knowledge economy in the Netherlands

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Master Thesis
Utrecht University
Social Policy and Social Interventions
July 1 2013



Universiteit Utrecht

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Acknowledgements

This master thesis is written as part of the final product of the interdisciplinary master programme Social Policy & Social Interventions at Utrecht University. This thesis could not have been written without the feedback, help and support of several people. Therefore, I would like to express my appreciations to the following people, who helped me during the process:

First of all, I would like to thank my supervisor Marcel Hoogenboom for providing me feedback and guidance along the way. Even though I had a rough start, he helped to regain focus and made sure I could finish in time. I would also like to express my gratitude to my fellow students of the Master Project Peer Group, Nadine Langerak, George Giannakopoulos, who have read and discussed my drafts. Their help turned out to invaluable.

Further, I would like to thank my parents, who have given me valuable feedback, probably without them even realising it, just by listening to me talking about the content of my thesis and struggles I faced. Special thanks for my brother and twin-sister, who have managed to find some spare time, even though they were busy with their own studies. Further, I would like to thank my friends, and in particular my boyfriend Nick Kwast who all had the patience to listen to me, while I kept on talking about boring research details, and never complained about that. Finally, I would like to thank all the ladies in my roller derby team the Eastside Rock'n Rollers, for allowing me to blow off steam during practices, and let me hit them to relieve me from any stress or frustrations.

Amsterdam, July 1 2013

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Abstract

The aim of the study in general can be described as finding out whether or not, and how, the Dutch government recognises and addresses these new demands, new risks and new social risk groups, and how these issues are addressed in the form of policies. The aim of the theoretical chapter was to find out what the new demands of the knowledge economy are for workers and learners, and what the consequences these new demands have in terms of new social risks, and new social risk groups. The study partially has the shape of a plan evaluation, but is directed towards existing policies. The results of the study show that the Dutch government recognises the new demands, and address them, as well as several new social risk groups. However, crucial is the result that the concept of knowledge economy, the new demands, risks and risk groups are not always properly defined. The most important policy in addressing these issues is the LifeLongLearning approach.

1. Introduction

1.1 Introduction

In the last decades, the concept of knowledge economy, attracted a lot of attention from scientists and policy makers. In 1996, the Organization for Economic Co-operation and Development (OECD) in Paris concluded that: 'The OECD economies are increasingly based on knowledge and information. Knowledge is now recognized as the driver of productivity and economic growth, leading to a new focus on the role of information, technology and learning in economic performance. The term 'knowledge-based economy' stems from this fuller recognition of the place of knowledge and technology in modern OECD economies' (Harris 2001: 21).

Four years after that, in 2000, the Lisbon Strategy was developed for the economy of the European Union (EU) between 2000 and 2010. The EU member state leaders declared that the central aim of EU socio-economic policy for the next ten years was to become 'the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion'¹. In other words, the Lisbon Strategy was developed to handle the low productivity and stagnation of economic growth in the EU, and a strategy to promote job creation and skills for the new knowledge-based economy. The strategy sets out a range of specific recommendations in four main areas: learning, work, public services and enterprises (Peters 2002: 91). Several policy initiatives were formulated, that had to be taken by all EU member states. These broader goals needed to be achieved by 2010.

A rediscovery of the economic importance of education has been fundamental to understanding the new global knowledge economy (Papadopoulos 1994). The OECD and the World bank have stressed the significance of education and training as keys to participation in the new global knowledge economy for the development of 'human resources'; for upskilling and increasing the competencies of workers; and for the production of research and scientific knowledge (Peters 2001: 1). The EU stressed the importance of education, training and youth and the essential role they play in a knowledge-based economy, because these focusing on these factors can support growth and employment by encouraging the emergence of a highly qualified and adaptable population. Furthermore, they strengthen social cohesion and active

¹ http://www.europarl.europa.eu/summits/lis1_en.htm
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citizenship within the EU, which are other goals set by the Lisbon Strategy². For these reasons, education and training can be viewed as a main factors in transforming the EU into a world-leading knowledge-based society and economy.

The Lisbon Strategy 'stimulated politicians in many EU member states to advocate a substantial change in their countries' socio-economic and educational policies and an improvement in their constituencies' knowledge and learning skills' (Hoogenboom et al. 2008). The Dutch government formulated the goal that the country needed to end up in the top-five of European Knowledge-based economies. But in the Netherlands, as in many other member states, after years of debate and research it is still fairly vague what exactly a knowledge society *is*, what steps should be taken to stimulate its evolution, and what the effects are of the knowledge-based economy (Hoogenboom et al. 2008). In addition, it is argued that the development towards a knowledge economy brings with it new demands for citizens, and along come social risks, often specifically for certain groups (Bonoli 2005). It is therefore necessary to do research on the (new) policies concerning the knowledge economy, and in particular it is necessary to illustrate whether or not these policies address new social risks and new social risk groups. In other words, how has the Dutch government shaped policies around the concept and new demands of the knowledge economy, and how does she handle groups that are exposed to (new) problems or risks due to this new knowledge economy?

1.2 Scientific and social relevance

The aim of this research is to check whether the Dutch government notices new demands, risks and risk groups in the knowledge economy. This is not only relevant for those who could experience social risks, but for everybody in the Netherlands since they all need to adapt to the new demands of the knowledge society in order to stay involved in the knowledge economy and knowledge society. Subsequently, if the Dutch government does not address these new demands, and in particular the new risks that can come into existence as a consequence of these new demands, people could be at risk of being marginalised or experience poverty in the Dutch society. It is therefore of great importance to check whether or not these demands and risks are recognised, but also if they are addressed properly.

The academic relevance of this research is twofold. First, in academic literature, no

²http://europa.eu/legislation_summaries/education_training_youth/index_en.htm

clear definition is provided and therefore results in rather fuzzy theories about the concept. It is the purpose of this research to provide a clear overview of what is actually changing, and what the new demands of the knowledge economy actually are. Secondly, academic relevance is found in the lack of empirical research that has been on the knowledge economy, and its new demands for citizens, in particular learners and workers, perhaps due to the fuzzy nature of the concept. This research tries to fill in this empirical gap, by doing policy analysis on how the knowledge economy has been used outside the academic field.

1.3 Interdisciplinary character of the research

Although this research can, in the first place, be described as a policy analysis, it has an interdisciplinary nature. First of all, economic theories were used to provide insights in the way in which the economy is changing. However, this research uses more theories than solely the economic perspective, especially since the concepts knowledge economy and knowledge *society* are mixed up. In other words, the focus is not solely on the economy, but also on the consequences for society, especially for people. Due to this emphasis on society and the consequences for people, this research was given a sociological edge.

Furthermore, the emphasis on social policies in this research includes different perspectives on how welfare states shaped their policies in order to meet new social risks in the post-industrial society. Therefore, welfare state research is also used in this study. In short, insights from several different disciplines made this research interdisciplinary namely economical, sociological and welfare state theories were used. Therefore, this study can be described as a typical knowledge economy study, since it became apparent in this study that in order to be innovative and to create new knowledge, insights from multiple disciplines must be combined.

2. Theoretical exploration & Research questions

In this chapter, I will first explain the new policy directions of the EU, in particular the Lisbon Agenda. Next, the development towards the knowledge economy will be examined – what were the changes in the economy. Thereafter, the concept knowledge economy and several discourses related to the concept will be discussed, what do researchers mean when they discuss the 'knowledge economy'? In the section that will follow, the new demands of the knowledge economy will be discussed, with an emphasis on the new demands in the economy and society for citizens, for workers and learners. In addition, with these new demands, new risks arise: what are the consequences if people cannot live up to these new demands, or do not have the capabilities to live up to these new expectations? This will be discussed in the section 'new social risks and new social risk groups'. Finally, some new policy directions will be discussed, in order to find out how governments try to address these new risks and new risk groups.

2.1 Knowledge economy in the EU: Lisbon Strategy

As is explained in the introduction, the knowledge economy is now a goal, a point on the agenda of the EU and its Member States. The modernization of the European social model was part and parcel of this new strategic goal: 'investing in people and developing an active and dynamic welfare state will be crucial both to Europe's place in the knowledge economy and for ensuring that the emergence of this new economy does not compound the existing social problems of unemployment, social exclusion and poverty (Esping-Andersen 2002). The Treaty of the EU lists a number of common social policy ambitions, for instance the fight against social exclusion. The convergence in objectives and ambitions not only reflects shared aspirations, but perhaps more precipitously a common concern with the new risks of social polarization (Esping-Andersen 2002: 206). According to Esping-Andersen (2002) the status quo appears increasingly out-of-date and ill suited to meet the great challenges ahead. Our existing systems of social protection may hinder rather than promote employment growth and competitive knowledge-intensive economies. They may also be inadequate in the face of evolving and possibly far more intense social risks and needs. It is on this backdrop that new political entrepreneurs and welfare architects are coming to the fore with calls for major regime change (Esping-Andersen 2002: 4).

The 2002 European Council in Barcelona stressed the importance of education and training in the achievement of the Lisbon ambition (Commission of the European Communities 2002). There are several concrete targets such as: Investment in education and training, early school leavers and lifelong learning. The Lisbon Treaty makes clear that member states have full responsibility for the content and organisation of their education and training systems (Commission of the European Communities 2002). The Open Method of Coordination (OMC) is the instrument for the development of a strategy in education and training within the framework of the Lisbon Treaty. The OMC is described as a '*means of spreading best practice and achieving greater convergence towards the main EU goals*' (Commission of the European Communities 2002: 6). In other words, the Dutch government needs to formulate its own goals with regard to the knowledge economy, and set up its own policies in order to achieve her ambitions. Before these goals and policies will be analysed, it is first important to explain what the knowledge economy actually is, what has changed over time, and what the new demands are. This will be done in the following section.

2.2 Before the knowledge economy

The history of economy in the Western world can be roughly split up in three periods. The first period is from the 17th to the 19th century. From the 1760s to the 1830s, steam engines, textile mills, and the Enlightenment produce the Industrial Revolution. Much of the competencies developed in this period century were land-based, or, more generally, factor-based, where the theory of comparative advantage is the centrepiece of every course on the theory of international trade. The theory of comparative advantage postulates that comparative advantage is based on land, labour, and capital, and that nations should produce those goods for which they have the greatest relative advantage (Ungson & Trudel 1999: 60).

The years 1880 to 1930 were shaped by the spread of electric power, broadcast, telephones, mass production, and democracy (Ungson & Trudel 1999: 60). In this second period, from the 19th to the 20th century, the turn to the 20th century ushered in a refinement, known as factor-endowment theory - nations will produce and export products that use large amounts of production factors that they have in abundance, and that they will import products requiring large amounts of production factors that are scarce in their country. Competencies in this context, however, are all grounded in production efficiency. The Machine Age was about mass, routine production of adequate goods (Ungson & Trudel 1999: 60-61).

2.3 *The third economic period*

On the eve of the 21st century, we witness the of the third period, the Information Age, or *the third industrial revolution* (Ungson & Trudel 1999: 60; Harris 2001: 22). The new competitive differential depends on communication, knowledge, and the creation and application of technology, a form of knowledge, rather than natural resources and physical labour. In such an age, where capital and production capacity are globally abundant, endowed factors are increasingly unimportant (Ungson & Trudel 1999: 61; Harris 2001: 22).

New technologies are rooted in computers and the potential of new information technologies. The major technological revolution that is taking place as we enter the digital age is important, since information technologies can affect knowledge creation in a number of ways (David & Foray 2001: 3). It is in the Internet that these technologies come together, and it is the Internet phenomenon that exemplifies the IT revolution. In economic terms, the central feature of the IT revolution is the ability to manipulate, store and transmit large quantities of information at very low cost. Because the marginal costs of manipulation, storing and transmitting information is virtually zero, the application of knowledge to all aspects of the economy is being greatly facilitated, and the knowledge intensity of economic activities greatly increased. This increasing knowledge intensity involves both the increasing knowledge intensity of individuals goods and services, *and* the growing importance of those goods and services in the economy (Houghton & Sheehan 2000: 2-3).

There is a shift in the economy from agriculture and industry towards a service economy. This is the result of increased rationalisation of production processes, which is tied to globalisation and the worldwide division of labour. However, as Baumol (1973) pointed out, service-led growth in the post-industrial era had at least one unfortunate consequence – productivity growth was doomed to slow and thus the growth rate in the standard of living was doomed to slow. Many services by definition do not experience productivity increases (Harris 2001: 22).

The main advantage of the knowledge-based, post-industrial vision was its firm rejection of the economic law of diminishing returns, and its corollary – slow productivity growth. In this new view, a new piece of knowledge could be applied an infinite number of times with no deterioration in its value due to repeated use, was infinitely durable through both time and space, and could be stored at low to zero cost in the new digital mediums (Harris 2001: 23). This in turn led to entirely new visions of economic growth based on the

creation of new knowledge and its applications, which offered a fairly optimistic view of the future. While a service-led post-industrial economy was doomed to ever higher restaurant prices and dead-end jobs, a shift to knowledge-based growth promised ever increasing wealth based on the emergence of entirely new goods and activities (Harris 2001: 23). Still, the importance of commercial and public services and care in the economy is increasing.

Another main driving force of the emerging knowledge economy is the rapid globalisation of economic activities (Houghton & Sheehan 2000: 4). The main characteristics of globalisation since the 1980s can be summarised in terms of impacts relating to the emergence of a global system, global competition, the location, organisation and rationalisation of economic activity (Houghton & Sheehan 2000: 8). In addition, the globalisation of production and sources is leading to increasing specialisation and the facture of chains of production across international boundaries. Further, the organisation of economic activity is increasingly flexible, network oriented (including user-producer interactions) and built through clustering. Time is becoming increasingly important for competitiveness, a key aspect of value – essentially a new factor of production (Houghton & Sheehan 2000: 8).

In short, several arguments are put forward to back up the knowledge economy claim. First, researchers argue that knowledge has become the key resource of value adding activities, whereas land was the main resource in the agricultural economy of traditional society, as were both natural resources like coal and labour in the industrial economy of modern society until the 1960s (Hoogenboom et al. 2008; Harris 2001; Ungson & Trudel 1999). Next, there is a shift towards globalisation of economic activities. Furthermore, knowledge has not only become more central, the speed at which it is created and accumulated has also greatly accelerated (Hoogenboom et al. 2008). This leads to 'innovation' as a key characteristic and key concept of the knowledge economy.

2.4 Concepts: knowledge economy and knowledge society

However, not all researchers agree about which processes are most important, and about how to conceptualise these new developments. Consequently, was (or maybe is) no single analytical framework to describe the essential characteristics of the emergent technologies and the impact they had on the economy (Harris 2001). Several ideas and concepts came up such as 'weightless economy', 'information economy' and 'knowledge-based economy'.

Although there are differences in the meaning of the concepts, they are used in such a way as

their content would be the same. This is probably the effect of the poor explanations and definitions that researchers provide when they use these concepts in their research (Harris 2001; Godin 2006).

Most researchers nowadays argue that the knowledge-based economy is the dominant post-industrial economic development paradigm that emerged in the 1980s, with an emphasis on the role of knowledge creation and distribution as the primary driver in the process of economic growth, the distribution of income, the growing importance of knowledge-based networks among firms, and the interface between government business and citizens in the advanced economies (Harris 2001).

In academic literature, the main organising concepts have shifted backwards and forwards between 'information' and 'knowledge', and between 'knowledge society' and the 'knowledge economy' (Peters 2002: 92). The distinction between the 'knowledge society' and the 'knowledge economy' will maintain in this research. Furthermore, this research first examines what it is that is different in the knowledge economy, and what this economy needs. Next, the consequences for people, in particular learners and workers, will be discussed, which is more important in relation to the knowledge society, the system around the knowledge economy.

Now that the characteristics of the knowledge economy are outlined, it is important to look at the new demands that the knowledge economy brings with it for people, especially for workers and learners.

2.5 New Demands in the knowledge economy

Technological progress, organisational change and intensified global competition have driven a shift from manual work to 'thinking' jobs (Seltzer & Bentley 1999). In contrast to the typical worker of the industrial era who was required to learn a relatively stable set of competences, the knowledge-based worker is experiencing a blurring of boundaries between work and learning (Seltzer & Bentley 1999). The emergence of the knowledge economy can be characterised in terms of the increasing role of knowledge as a factor of production and its impact on skills, learning, organisation and innovation (Houghton & Sheehan 2000: 9). In other words, several authors argue that the knowledge and service economy ask for different *competences*. However, in most research on these so called 'new competences', the concept of competences is not properly defined. Subsequently, the first question that we need to answer,

is the question of what 'competences' actually are.

The concept of competence has a fairly long history in education and training research and practice. In competence literature and in practical situations, a cluster of knowledge, skills and attitudes is often being used to define competences (e.g., Gonzi et al. 1993; Parry 1996).

For example:

'A competency is a cluster of related knowledge, skills and attitudes that affects a major part of one's job (a role or responsibility), that correlates with performance on the job, that can be measured against well-accepted standards, and that can be improved via training and development' (Parry 1996: 50).

Nowadays, the notion of competencies as integrated capabilities has become very popular:

'Competence is the capability of a person (or an organisation) to reach specific achievements. Personal competencies comprise integrated performance-oriented capabilities, which consist of clusters of knowledge structures and also cognitive, interactive, affective and where necessary psycho-motor capabilities, and attitudes and values, which required for carrying out tasks, solving problems and, more generally, effectively functioning in a certain profession, organisation, position or role' (Mulder 2001, in Biemands et al. 2004: 530).

Reviewing the many studies on competence development, however, it is possible to conclude that the concepts competence and competence-based education are still very diffuse and require clear definition and conceptualisation. Van Merriënboer et al. (2002) concluded that many conceptions of competence exist, both in theory and in educational practice. Moreover, competence as a concept turned out to be too elastic.

As will become clear in the section below, the so called 'new competences' that a workers and learners need in the new economy are, contrary to what the concept 'competences' would suggest, mostly clustered around knowledge and skills. For this reason, the concept of 'competences' will not be used in this research. Instead, the term 'new demands' of the knowledge economy for workers and learners will be used.

2.5.1 Knowledge

For years, 'knowledge' was treated in the same way as 'information'. However, knowledge is a much broader concept than information. Information is the *know-what* and *know-why* components of knowledge or 'codified'/'explicit' knowledge. Codified means that it is articulated and clarified in such a way that it can be expressed in a particular language and recorded on a particular medium. Codification therefore involves the exteriorization of memory (Favereau 1998, in David & Foray 2001: 4). In many cases, when for example technicians have 'learned to learn' and dealing with a more or less standard machine, knowledge reproduction becomes almost instantaneous and assumes characteristics close to those of information reproduction. Codified is formal and systematic, and can therefore be easily communicated and shared for instance in product specifications or a scientific formula or a computer program (Nonaka 2000: 98). In more complex cases, however, the codified knowledge, while certainly useful, will only provide partial assistance. Knowledge reproduction will then occur through training, practice and simulation techniques (David & Foray 2001: 5).

A lot of non-codifiable knowledge is *tacit*; it is embedded in people and in particular contexts (Harris 2001: 25). Tacit knowledge is mostly rooted in action and in an individual's commitment to a specific context, for instance a craft or a profession, a particular technology or product market, or the activities of a team. This type of knowledge consists partly of technical skills – the mind of the informal, hard-to-pin-down skills captured in the term 'know-how'. For these reasons, tacit knowledge is highly personal, hard to formalise, and therefore difficult to communicate to others (Nonaka 2000: 98).

The type of knowledge dominant in Western societies has changed significantly in the course of time. One argument to sustain the coming of a knowledge economy, is the observation of a shift from 'tacit knowledge' to 'codified knowledge' as the basis of organisation and economic activity (Hoogenboom et al. 2008: 359-360). In the knowledge economy, articulation (converting tacit knowledge into explicit knowledge) and internalisation (using that explicit knowledge to extend one's own tacit knowledge base) are the critical steps in the spiral of knowledge (Nonaka 2000: 99).

The enormous increase in the codification of knowledge, which together with networks and the digitalisation of information, is leading to its increasing commodification

(Houghton & Sheehan 2000: 9). The IT revolution has intensified the move towards knowledge codification, and increased the share of codified knowledge in the knowledge stock of advanced economies. All knowledge that can be codified and reduced to information can now be transmitted around the world at relatively little cost. Market transactions are facilitated by codification, and the diffusion of knowledge is accelerated (Houghton & Sheehan 2000: 10).

Besides the shift from tacit to codified knowledge, knowledge in the knowledge economy has several other characteristics (The Australian Council of Deans of Education 2001: 16-17). First of all, knowledge in the knowledge economy is highly situated. This means that knowledge today is very specifically linked into an area of specialist knowledge, or particular technology, or particular subcultural interest etc. Knowledge is also diverse and increasingly determined by the peculiarities of a particular and cultural context. Consequently, learning in the knowledge economy is not doing something one right way, but doing this in different ways for different contexts. The crux here is that there is no rigidly and universally right, but because they are right for a particular context. Further, knowledge is changing at such a rapid rate that any facts or truths learnt in school today are likely to be redundant or contested tomorrow, no matter how immediately relevant they may seem to be (Australian Council of Deans and Education 2001: 85: 86). In addition, knowledge is acquired through social activity, rather than in one single persons head. In other words, knowledge is created collaboratively – in work teams, in scientific research laboratories, through community development. In the knowledge economy, knowledge is located in organisations and communities; it is a thing of corporate and cultural memory (Australian Council of Deans and Education (2001).

Although technical and specialist knowledge have become more valuable nowadays and it maintains important to achieve depth of knowledge, the main way to realise value is when different bodies are brought together. In other words, interdisciplinary knowledge and skills are more and more valuable to individuals and organisations (Seltzer & Bentley 1999). Interdisciplinary knowledge is not just the specialisation in more than one subject, it requires the ability to understand the *interface* between different areas of knowledge, and to apply insights from one to the other (Seltzer & Bentley 1999).

The knowledge economy demands higher educated people, and jobs which require low skills, such as industry work, disappear, mostly towards third world countries (Ungson &

Trudel 1999). More and more work will require a high knowledge component and high level skills, and even marginal and lowpaying jobs will demand greater ability to manage information, apply knowledge and learn on the job (Seltzer & Bentley 1999). In addition, vacancies that ask for higher educated people will increase, while vacancies that ask for low educated people will decrease.

These characteristics of knowledge in the knowledge economy have implications for the skills of learners and knowledge workers in the economy today. This impact will be explained in the next section.

2.5.2 Skills

Soft skills

Service or knowledge economies are on the rise, and therefore the qualification structure is changing. There is more emphasis on soft skills, and on an increased need for employability and lifelong learning. (Van Zenderen & De Graaf 2011: 2). Some scholars name the new skills 'soft skills', opposed to 'hard skills' (Van Zenderen & De Graaf 2011; Parry 1996). Hard skills, on the one hand, are job-specific abilities (such as job-related knowledge and skills), which include the technical knowledge skills required to practise a certain profession. Soft skills, on the other hand, refer to personality traits, values and styles, which are necessary for contact with clients, customers and colleagues, and involve presentation, communication, and cooperation skills. In short, the difference defined in terms of professional and social competences (Van Zenderen & De Graaf 2011: 7).

One point of critique on the argument that the knowledge economy requires new skills, is the point that for instance the 'soft skills' can hardly be described as new. Although not as prominent, they have always been, throughout history, crucial to the development and well-being of individuals in the world of work. However, what is important is that these skills today are necessary in order for one not to become marginalised, especially opposed to the decreasing importance of hard skills (David & Foray 2001).

Now that it is not only about the things you know, but also about the things you can do rather than knowing for its own sake, this means that it is no longer enough for students to show that they are capable of passing public examinations. To thrive in an economy defined by the innovative application of knowledge, students and knowledge workers must be able to do more than absorb and feedback information. They must draw on their entire spectrum of

learning experiences and apply what they have learned in new and creative ways (Seltzer & Bentley 1999). Seltzer & Bentley argue that learners and knowledge workers needs to be 'creative' – creativity here is the application of knowledge and skills in new ways to achieve a valued goal. In order to achieve this goal, there must be a belief in learning as an incremental process (Seltzer & Bentley 1999). In the sections that follow, the 'new' soft skills will be explained in more detail.

Codification, selection & ICT

As is described in the 'knowledge' paragraph, there is an increased rate of codification and collection of information. Access to information becomes easier and less expensive, the skills and competencies relating to the selection and efficient use of information become more crucial, and tacit skills necessary to handle codified knowledge becomes more important than ever (Houghton & Sheehan 2000: 11). Information technology will be the locus of codified knowledge in the knowledge economy (Houghton & Sheehan 2000: 11). However, in order to be able to select relevant knowledge, not only skills to select relevant knowledge are needed, ICT skills also become increasingly important since Internet is crucial in the codification of information and knowledge. In addition, as is described above, technology is an important factor in the knowledge society. In sum, people who live and work in a knowledge society need to have skills to handle codified knowledge, and ICT skills become increasingly important as well.

Keep knowledge up-to-date & networks

In the knowledge economy, the crux of the issue lies in the accelerating (and unprecedented) speed at which knowledge is created, accumulated and, most probably, depreciates in terms of economic relevance and value. This trend has reflected and intensified pace of scientific and technological progress (David & Foray 2001: 1). Industries and competition are now becoming defined in dynamic technological terms. The increasing pace of technological innovations has shortened the life cycles and has made speed a crucial competitive weapon.

As a consequence, people need to keep their knowledge and skills up-to-date. The need to keep up with incessant change is essentially what drives employees to develop new kinds of skills and abilities. These go beyond the constant updating of technical knowledge, for they also pertain to the capacity to understand and anticipate change (David & Foray

2001: 9). Many experts underscore the importance of generic learning abilities: learning to learn, knowing what we do not know, being aware of the main forms of heuristic bias that can distort the power of reasoning. It is better to have a firm command of such abilities, they say, than to be able to master a specific repertoire of technical skills (Seltzer & Bentley 1999). Personal knowledge management skills, as well as knowledge management infrastructure for the organisation or professional body supporting knowledge workers are critical to the learning needed for a knowledge economy (Collis 2005: 216).

Since knowledge in the knowledge economy is mostly created collaboratively (Australian Council of Deans and Education 2001), and network and architectural blocks have emerged as key competitive structures (Ungson & Trudel 1999: 62), an individual's learning capability is very much located in their capacity to collaborate. In other words, learners are not people who can demonstrate what they, as individuals, know; rather, good learners can demonstrate that they can work knowledgeably in groups (Australian Council of Deans and Education 2001).

Fluid environments

In the new economy, people work and live in increasingly fluid environments. In many sectors, vertical hierarchies and divisions are becoming less rigid. In addition, most people work with flexible hours, and some have project-based work. Organisational context are less fixed and predictable.

It is argued that one of the major changes in the working life is the loss of routine. People now must rely on the skills of self-organisation – defining and structuring our objectives, managing our time, clarifying priorities, avoiding overwork etc. In addition, mental self-organisation is also a consequence of our contemporary work and lifestyles – developing thinking strategies, applying ourselves in different ways to a problem, and understanding the range of tools and techniques we can use to perform a task are all key to maximising our effectiveness (Seltzer & Bentley 1999). These changing patterns and demands of the labour market will require new forms of personal discipline and self-reliance (Seltzer & Bentley 1999). This implies that people will need to rely on themselves to manage, organise and balance their lives.

Flexible forms of organisation drive and shape globalisation. Flexible organisations reduce waste and increase the productivity of both labour and capital by integrating 'thinking'

and 'doing' at all levels of their operations. In doing so they eliminate many layers of middle management, which are dysfunctional in terms of information flow. Flexible organisations also avoid excessive specialisation and compartmentalisation by defining multi-task job responsibilities (which calls for multi-skilled workers) and by using teamwork and job rotation (Houghton & Sheehan 2000: 10). This need for multi-skilled workers is related to the new type of knowledge, interdisciplinary knowledge, in the knowledge economy.

It is argued that there is a paradox here. On the one hand, knowledge and skills requirements are rising in this economy, but on the other hand, more qualifications are not necessary helpful. This paradox can be explained because of the premium on new ideas and flexibility, people who have built up detailed knowledge over time find themselves at a disadvantage if they do not know how to apply what they know in different ways. In addition, the new 'basic' skills are not just about *what* people know, but about *how* people think and act (Seltzer & Bentley 1999).

Two conclusions can be drawn from this paradox. The first is that, to meet escalating demands, the education system itself needs a greater capacity for innovation and creativity. Making more effective use of resources, creating and applying knowledge in new ways, are as important to education as to any other sector. Second, we must recognise that innovation partly depends on being able to leave behind established assumptions and educational methods which may have outlived their usefulness. The education system will be unable to innovate effectively unless it can create a new space in which to do it. Simply adding to the list of requirements and outcomes, even with increased spending, is not enough if we are looking for education to deliver different kinds of outcome. (Seltzer & Bentley 1999)

To sum up, we can identify key attributes of successful learners and knowledge workers. Excellent learners and workers will be autonomous and self-directed – designers of their own learning experiences, in collaboration with others as well as by themselves. They will need to be flexible, possessing problem-solving skills, multiple strategies for tackling a task, and a flexible solutions-orientation to knowledge (Cope & Kalantzis 2000; Australian Council of Deans of Education 2001; Gee 2000).

Further, good learners and workers will be broadly knowledgeable, and in particular able to engage with the different interpretative frameworks and contexts of specific information (Kalantzis, Cope & Harvey 2003: 17). The knowledge economy asks for higher

educated people, with different skills such as soft skills and ICT skills. In addition, in order to be innovative and stay competitive as a worker, they need to keep their knowledge up to date.

2.6 New social risks & New social risk groups

As is discussed above, the knowledge-based economy rests on a skilled and flexible labour force, which can easily adapt to the constantly changing needs of the economy but also be the motor of these changes. Changes in population, family structure, labour markets, and in the coming to maturity of expensive welfare systems also present formidable challenges to the current welfare settlement. It is therefore necessary to look at these changes, and the new policies and new directions in the welfare state that they require – the emerging policy agenda of new social risks. (Taylor-Gooby 2004: 1).

New social risks

New social risks can be described as the risks that people now face in the course of their lives as a result of the economic and social changes associated with the transition to a post-industrial society (Taylor-Gooby 2004: 2-3). However, besides the new social risks that came into being due to the post-industrial society, the knowledge economy itself creates new social risks too. These new social risks are in particular related to the new demands and that the knowledge economy requires from learners and knowledge workers, and to the new structure of the economy and labour market. Labour market changes primarily have to do with technological developments in production, which have reduced the proportion of unskilled manual jobs in industry. Secondly, they have to do with the growth in scale and intensity of cross-national competition, which allows countries with lower pay levels to use their comparative advantage to attract mobile work, have tightened the link between education and employment. This in turn affects the risk of social exclusion among those with poor education (Taylor-Gooby 2004: 4).

Successfully managing new risks is increasingly important for citizens, particularly for vulnerable groups, since the risks themselves affect more people and because failure to cope with them successfully can have substantial implications for poverty, inequality, and future life chances. Although these risks can hardly be described as 'new', they are called 'new social risks' because what causes them is new, namely the new demands and changes in the economy and society. When people cannot live up to the new requirements of the labour market, and to

the new demands described in the former section, they will probably more exposed to these new social risks, and will therefore be called ‘new social risk groups’. To define these new social risks groups (NSR groups), Sen’s capability approach will be used.

The capability approach & new social risks

The core characteristic of the capability approach is its focus on what people are effectively able to do and to be; that is, on their capabilities; between the means and the ends of well-being and development. Only the ends have intrinsic importance, whereas means are instrumental to reach the goal of increased well-being, justice and development. However, in concrete situations these distinctions often blur, since some ends are simultaneously also means to other ends (e.g. the capability of being in good health is an end in itself, but also a means to the capability to work) (Robeyn 2005: 95).

In this approach, the ends of well-being, justice and development should be conceptualised in terms of people’s capabilities to function; that is, their effective opportunities to undertake the actions and activities that they want to engage in, and be whom they want to be. In other words, the major constituents of the capability approach are *functionings* and *capabilities*. These beings and doings, which Sen calls functionings, together constitute what makes a life valuable. Functionings include working, resting, being literate, being healthy, being part of a community, being respected, and so forth. A person’s capability, on the other hand, is ‘the various combinations of functions that a person can achieve’. In other words, capability is thus a set of vectors of functions, reflecting the person’s freedom to lead one type of life or another (Sen 1992). A person’s functions and her capability are closely related but distinct. ‘A functioning is an achievement, whereas a capability is the ability to achieve. Functions are, in a sense, more directly related to living conditions, since they *are* different aspects of living conditions. Capabilities, in contrast, are notions of freedom, in the positive sense: what real opportunities you have regarding the life you may lead’ (Sen 1987: 36, in Robeyn 2003: 11).

As argued above, labour market changes have tightened the link between education and employment. The knowledge economy demands higher educated people, and jobs which require low skills, such as industry work, disappear, mostly towards third world countries (Ungson & Trudel 1999). Vacancies that ask for higher educated people will increase, while vacancies that ask for low educated people will decrease. This affects the risk of social exclusion among those with poor education (Taylor-Gooby 2004: 4). In other words, (those)

people with a minimum level of education have about two and a half time more chance to be unemployed and nearly five times more chance to be in long-term poverty compared with those who have attended university (Eurostat 2000, Tables 2 and 3; OECD 2002: Table D). Further, it is argued that education and skill levels are now linked to progress in work and quality of working life. Skill increases are much more likely higher up the occupational ladder and the lower skilled more likely to anticipate insecurity and unemployment (Gallie 2002: 113-18) (Taylor-Gooby 2004: 4). In terms of the capability approach, one can speak of 'education' as a means to an end, as well as an end in itself since education here is a means to well-being in the knowledge economy, as well as an end since learning is always continuing. In short those people with low skills, and people who do not have the resources or access to proper education, are increasingly at risk of marginalisation (Seltzer & Bentley 1999).

Learners and workers in the knowledge economy experience that knowledge becomes more particularistic and more diverse. (In-dept-) knowledge about topics is required, but they need to apply this knowledge in different contexts as well. In other words, their knowledge needs to be interdisciplinary. This is especially problematic for those who have a profession which require one specific skill, or set of skills, especially when they have a low(er) education level, such as a car mechanic or a seamstress. When these people become unemployed, they probably need retraining. However, those who do not have the resources or access to get retraining will probably become marginalised and experience skill exclusion.

In sum, the increasing premium on new skills and qualifications is creating new patterns of marginalisation among those who lack the means or the motivation to acquire marketable knowledge. Therefore, developing new kinds of skills are central to their future prospects (Seltzer & Bentley 1999). According to Bonoli (2005; 2012), those who are most vulnerable to these risks are older people, women, and migrants, since they often have low(er) skills. In addition, these groups often lack the means or motivation to acquire (new) knowledge.

New Social Risk Groups

The risks related to the new demands of the knowledge economy are problematic to certain groups. This will be further examined in this section. Migrants, for example, already have a disadvantage since they have a harder time communicating with others, since most of them speak a different language, or do not speak the language of their new home-country not as good as their mother-tongue. This would be less of a problem if they just had to do

manufacturing work, instead of 'knowledge-work' where soft skills such as communication skills are highly important.

It is argued that workers in more marginal forms of employment are significantly less likely to receive training in areas that will enhance their employability. In addition, people with temporary or fixed term contracts are less likely to receive training than people on a permanent contract. Furthermore, people with a part-time contract are less likely to receive work-related training than full-time workers. Differences also occur between sexes, since women are less likely to receive work-related training. Other groups vulnerable to skills exclusion include the self-employed, workers over 50, noncollege graduates and low-paid workers (Seltzer & Bentley 1999: 5).

In terms of education, students in the Dutch Vocational Education and Training (VET) system (in Dutch: VMBO/MBO) have the highest chance to be at risk in the knowledge economy. Most children over 12 in the Netherlands (60%) follow this path, and most difficulties, such as early school leaving and the adjustment of migrant youth, are found predominantly in this particular field of education. Further, the highest dropout rates are found in senior or secondary vocational education, where migrant youth are over-represented (Ministry of Education 2009, in De Graaf & Van Zenderen 2011: 2). Besides that, as the name indicates, this type of education provides students with vocational training, often to gain 'hard skills' directed to a certain profession, instead of more general soft skills which are required in the knowledge economy. Consequently, this makes it more likely for youngsters in the VET system to become exposed to new social risks. In order for them to become less likely to be marginalised, they need access and resources to forms of higher education.

However, not just noncollege graduates and low-paid workers are vulnerable, other groups vulnerable to skills exclusion include the self-employed and workers over 50 (Bonoli 2005). Those who start from a marginal position in the knowledge society greatly increases the risk of later disadvantage. This can be explained because they are unable to grasp opportunities at each stage of life or work can make it harder and harder to adopt (Seltzer & Bentley 1999).

In sum, some groups in society are more at risk in a knowledge society than others. These groups are often migrants, older people and those with low educational levels. Their backlog can partially be described by their lack of capabilities, mostly a lack of resources and access in education, since education is now closely related than ever the labour market position. It

can therefore be argued that the government should address the new demands, risks and risk groups by providing resources and access in education with their policies. In the next section, government policies in the 21st century will be discussed.

2.7 New social risks & Social policies

At the end of the twentieth century with the coming of the post-industrial society, the traditional, protective welfare state in Western Europe came under strain with the emergence of 'new social risks' (Bonoli 2005). In response, scholars put forth new policy ideas that, in line with Peter Hall's claims about policy paradigms, involved a wide-ranging search for alternatives and led to experimentation with policy modifications (Hall 1993: 291).

It should be noted that all authors agree on the idea that one can speak of a change in policy, and of a 'third period' after neoliberalism. They share common understandings of the shortcomings and inadequacies of post-war welfare states, especially with respect to the new social risks structure of contemporary societies and requirements of the new knowledge-based economy (Morel et al. 2012). In short, it can be argued that the common structure is the fact that they stress the productive potential of social policy, and thus provide a new economic rationale for social policy provision (Morel et al. 2012).

Several names were given to this change and third period of welfare state transformation namely 'the rollout of neoliberalism' (Peck & Tickell 2002), 'inclusive neoliberalism' (Porter & Craig 2004), the 'LEGO™ paradigm' (Jenson & Saint-Martin 2005) and the social investment perspective (Hemerijck 2012, Morel et al. 2012). Knijn & Smit (2009) distinguish three commonly used paradigms in the 'third period': The social investment approach (SI), the transitional labour market model (TLM), and the individual life-course model (ILC). The approaches share common features (Knijn & Smit 2007; see also Jenson 2008; 2009): *new social risks*, *life course*, *human capital*, and *re-commodification* are the keywords of each of these paradigms. Nevertheless, these approaches are fundamentally dissimilar on two of the components that make up a policy paradigm (Hall 1993): The definition of the character of the current problems and the policy instruments for solving these problems (Knijn & Smit 2009: 6).

In other words, in the SI the goal is to invest, therefore policy instruments are directed to investing for instance in education. In this approach, the (welfare) state should take care of the new social risks. In the TLM model the policy goal is to facilitate, so policy instruments are

directed to flexicurity, lifelong learning and activation policies. Consequently, social partners should take care of new social risks. Finally, the ILC perspective (Knijn & Smit 2009: 4) focuses on individualizing social risks, to make the individual employee/citizen responsible to take care of new social risks. Policy instruments are for instance private saving schemes.

Although these approaches are formulated as a response towards new social risks of the post-industrial society, it can be expected that these 'new' type of policies are also used to address new social risks as a consequence of the knowledge economy, because the knowledge economy can be considered as part of the post-industrial society.

2.8 Theoretical conclusions & Research questions

In the foregoing section, the change towards the new knowledge economy was discussed. It showed that there are several changes in the economy, which leads to new demands in the economy and society for citizens. The changes that have the biggest influence are the changes towards knowledge as the driver of the economy, new technologies, the speed of innovation, and the service economy. New demands for workers and learners that arise owing to these changes are higher education, a focus on a number of necessary soft skills, the need to keep your knowledge up-to-date and ICT skills.

When people are unable to fulfil these new demands, for instance because they do not have the capabilities to achieve these new functions, they will probably experience risks such as poverty, marginalisation and social or skill exclusion. Several groups have higher chances to be exposed to these risks than other, the new social risk groups: low-skilled people, older people, migrants and people with a flexible position on the labour market. There are three policy paradigms described in reaction to new social risks in the post-industrial society namely the social investment paradigm, the transitional labour market model and the individual life course perspective.

Based on the theory described above, the central research question can be formulated as follows:

To what extent does the Dutch government define new social risks that occur as a consequence of the new competences necessary in the new knowledge economy, and how does she try to address these new social risks?

Subquestions

In order to answer the central research question, the following sub-questions have to be answered:

- How does the Dutch government define the knowledge economy?
- How do the government define the new demands of the knowledge economy?
- To what extent does the Dutch government defines new social risks and new social risk groups related to the new demands?
- What are the policy goals or ambitions that the Dutch government wants to achieve, related to the new demands and risks of the knowledge economy, and what are the policies related to these goals and ambitions?
- How can these policies be described?

3. Methods of study

In this chapter the methodology that was used to carry out the research will be described, and is divided into three parts. First, the general approach is described, which is in this research a plan evaluation. Next, the collection of documents is described, as well as the method that is used to research the documents: qualitative content analysis. Thereafter, the coding process is described. And finally, the limitations of the method and validity of the research are discussed.

3.1 Plan evaluation

Although this research is focused on existing research, it can partially be described as a 'plan-evaluation'. The goal is to analyse existing interventions, and specify their goals. There are three ingredients for a plan evaluation namely the problem definition, an description of the existing situation (S), and a description of the situation that is aimed for (S*) (Swanborn 2007: 37; 133). These three ingredients formed the basis of this research. Further steps of a plan evaluation are to make an inventory of, and analyse, existing interventions and the specification of their effects. This information is gathered from existing documents. It is important to, in a specific policy situation, pay attention to existing interventions and the objective or the alleged subjective failure of these interventions (Swanborn 2007: 135).

Next, the researcher must find an explanation for the failure of existing interventions, and think of better interventions, by making connections between goals and interventions through problem specific and general theories. This is primarily desk activity, existing of the study of collected documents and a literature study. In a problem specific theory, elements of the studied specific situation are described and explained. After that, the reconstructed specific theory will be perceived as a special application from a general theory. The wider range of the general theory will be used to make predictions, develop instruments and to moderate the connection with other and wider disciplines of science (Swanborn 2007: 135). The researcher also provide a description of which aspects doubt exists (Swanborn 2007: 136).

The next three steps of a plan evaluation involves the design of new interventions, a costs/effects analysis per intervention, prioritising the alternative interventions as a consult/advice/guidance to the principal and to answer whether or not there is a need for process and/or product evaluation (Swanborn 2007: 137).

This research deviates from a plan evaluation at a certain point, since the aim is not to conduct a cost and benefits analysis, nor to provide precise advice about (the realization of) alternative interventions. In addition, this research does not focus on one specific intervention, but rather a set of interventions. For these reasons, the focus will be on the three ingredients and the first and partially second step of a plan evaluation. The second step will only involve to suggest where interventions are failing, or where the government lacks to address certain risks, risk groups or other issues. Moreover, the goal is not to find out whether existing interventions concerning the knowledge economy and new competences have *effect*, but to analyse to what extent and how the policies address new social risks and new social risk groups.

3.2 Collection of the documents

In this study, it is necessary to unravel the goals and policies that are established by the Dutch government, especially related to the new knowledge economy. This requires an analysis of several policies and therefore policy documents. Policies have been defined in different ways by different authors. For example, Schmid et al. defined policies as ‘legislative or regulatory action taken by federal, state, city, or local governments, government agencies, or non-governmental organisations (NGOs) such as schools or corporations. Policy includes formal and informal rules and design standards that may be explicit or implicit’ (Schmid et al. 2006). Bull et al. (2004) defined policies as ‘a guide to action to achieve intended goals, initiated by government, non-government or private sector organisations, and can occur on a written (e.g., within legislation, policy documents) or on an unwritten basis (e.g., within usual practice’ (Bull et al. 2004). In this thesis, policy documents are defined as written documents that contain strategies and priorities, define goals and objectives, and are issued by a part of the public administration (Daugbjerg et al. 2009: 806). The primary analysis will focus on documents issued by the ministries of the Dutch government, rather than other levels of governance. Reason for this is that the main focus is on the question whether the Dutch government addresses certain issues. Therefore, the primary analysis is focused on documents issued by a national body because these documents represent how the *national* government, rather than one single part of the Netherlands, addresses (or do not address) the issues.

Other than the term ‘knowledge economy’ would suggest, the promotion of becoming a knowledge economy goes beyond the economy sector alone. For this reason, the search was

conducted in the entire Dutch government, in every ministry, (Ministry of Defence, Ministry of Health, Welfare and Sport, Ministry of Economic Affairs, Ministry of Infrastructure and the Environment, Ministry of Education, Culture and Science, Ministry of the Interior and Kingdom Relations, Ministry of Finance, Ministry of Security and Justice, Ministry of Foreign Affairs, Ministry of Social Affairs and Employment, Ministry of General Affairs) in order to make sure all relevant documents could be selected for this research and to minimise the possibility that relevant data was left out of this research. All the documents were found online, on the official website from the Dutch National government: www.rijksoverheid.nl. The search was carried out on the 8th and the 18th of June.

After the initial search, more than 100 documents came up, but only documents published by the government were selected (Daugbjerg 2009: 806), since the interest is in what the Dutch government argues and reasons. After this search and using the foregoing criteria, 37 documents were selected. However, after a general overview, several documents were deleted because some turned out to be double, mostly since some documents were also published in both Dutch and English and/or did not contain policy directions, goals/objectives, strategies, or priorities. After that, 27 documents remained, and these documents were published either by the Ministry of Economic Affairs (EZ), the Ministry of Education, Culture and Science (OCW), or a joint publication by these two ministries. Reason is probably that the knowledge economy is of course a matter for the ministry of EZ, but also for OCW since the EU emphasised the role of education and training for the development of the knowledge economy.

Although the time-frame was initially set between 2000 and now (2013), since that was the time that the discussion around the knowledge economy started, and the Lisbon Agenda was formulated, two documents from 1998 and one from 1999 were used as well in the policy analysis. These documents were searched for because it turned out that some important policies related to the knowledge economy started before 2000. In order to fully understand the policies, it was important to search for the start of a policy programme. In other words, in order to understand the development of the policy, it was necessary to analyse how the policy started. In total, 30 policy documents were used in this research. A list of these documents can be found in Appendix A. These documents contained strategies and priorities of the two ministries, or defined goals and objects, and a number of documents also contained an evaluation of policies over a number of years.

3.3 Content analysis

The identification of the goals and policies requires content analysis of several policy documents. Due to the nature of the research question, namely to find out to what extent and how certain issues are addressed, qualitative content analysis will be used (Hsieh & Shannon 2005: 1286). Rather than being one single method, current applications of qualitative content analysis show three distinct approaches: conventional, directed, or summative. All three approaches are used to interpret meaning from the content of text data. The major differences among the approaches are coding schemes, origins of codes, and threats to trustworthiness. In conventional content analysis, coding categories are derived directly from the text data. With a directed approach, analysis starts with a theory or relevant research findings as guidance for initial codes. A summative content analysis involves counting and comparisons, usually of keywords or content, followed by the interpretation of the underlying context (Hsieh & Shannon 2005: 1277).

3.4 Summative approach to content analysis: the knowledge economy

The first subquestion in this research, how does the government define the knowledge economy?, will be answered by using the summative approach to content analysis. In this research it was important to first establish how the government defines the knowledge economy. However, as was unravelled in the theoretical chapter, the concept knowledge economy is often not properly defined. In addition, the theoretical chapter showed that the concepts knowledge economy and knowledge society are often mixed up. This approach is particularly useful to answer the subquestion, since it has the purpose of understanding the contextual use of the words or content, and to explore usage (Hsieh & Shannon 2005: 1283). This approach goes beyond mere word counts to include latent content analysis. Latent content analysis refers to the process of interpretation of content, where the focus is on discovering the underlying meanings of the words or the content (Hsieh & Shannon 2005: 1283-1284). In order to do so, the words 'knowledge economy', 'knowledge-based economy', 'knowledge society', 'kenniseconomie', and 'kennissamenleving' were identified. After that, the focus was on the context, and by doing so, different meanings behind the concepts were examined.

3.5 Directed approach to content analysis

The goal of a directed approach to content analysis is to validate or extend conceptually a theoretical framework or theory. Existing theory or research can help focus the research question. It can provide predictions about the variables of interest or about the relationships among variables, thus helping to determine the initial coding scheme or relationships between codes. This has been referred to as deductive category application (Mayring 2000; Hsieh & Shannon 2005: 1281).

In this research, we are going to use the directed approach to content analysis, since the aim is to test whether the theoretical framework is applicable in the case of the Dutch education policies from the Netherlands. Although we cannot technically speak of a deductive approach, since we are not going to test whether a theory is right, but whether the Dutch government conceptualise the new social risks and new social risk groups or not, this research can best be described as having a directed approach to content analysis.

3.6 Coding

Since the goal of the general research question is to identify and categorize the policies from the Dutch government, all the texts were first read globally, to establish the nature of the documents. As was explained in the methodology section, ten documents were erased in the first round. The next step in the analysis was to code all highlighted passages using the predetermined codes. In this case, the policy texts were categorised by using a coding tree connected to the theoretical chapter, with the structure of a plan evaluation in the back of the head. In other words, the main categories were the 'New Demands of the Knowledge Economy', 'New Social Risks', 'New Social Risk Groups' and 'Policies: Goals & Instruments'. Each main code had a number of subcodes, derived from the theory (Appendix B). In order to make sure that the coding was done in a transparent manner, especially since operationalisation is not common in qualitative content analysis, the theoretical chapter was written quite extensively. By doing so, it was clearer which sections should be coded, and coding could be done in a systematic manner.

Some parts of the text could not be categorised according to the coding tree, but seemed relevant, especially if new information popped up. When this happened, a new code was given to that part of the text (Hsieh & Shannon 2005: 1281). By doing so, the deductive approach was extended to make sure new or other categories related to the new demands or

risks of the knowledge economy were not missed. The data analysis software *Atlas.ti* was applied as methodological tool during the process of content analysis.

This programme is particularly useful for this research since it offers tools to 'manage, extract, compare, explore, and reassemble meaningful pieces from extensive amounts of data in a very creative, flexible, yet systematic way'³. This makes it a perfect tool for analysing qualitative data, or in this case, policy documents.

3.7 Limitations & Validity

Like any research method, content analysis has several disadvantages. Three main critiques were formulated around this method. First, a content analysis can only be as good as the documents on which the practitioner works. For this reason, Scott (1990, in Bryman 2008) recommends assessing documents with criteria such as: authenticity, credibility and representativeness (Bryman 2008: 291). In order to meet this criterion, only documents from the official Dutch government website were used, and only documents that were published by the government and not other bureaus, since the aim was to investigate how and why the government addresses certain issues.

In the second point of critique, researchers argue that with this method, it is difficult to ascertain the answers to 'why?' questions. Sometimes a finding is surprising, but the researcher can only speculate about his findings, he cannot answer the 'why?' question (Bryman 2008: 291). In this study, a qualitative approach of content analysis is used. The qualitative approach goes beyond just counting words, but also looks at the context and offers space to create new codes along the way. Although the aim of this research is not specifically to find out why certain decisions were made or policies were created, by using the qualitative approach a better understanding of the context was possible, as well as space for new insights and answering the 'why' question. This line of reasoning is also applicable for the next criterion: the accusation that content analytic studies are a-theoretical. This is due to the emphasis on measurement in content analysis, which can result in an accent being placed on what is measurable rather than what is theoretically significant or important (Bryman 2008: 291). As was mentioned above, the qualitative approach goes beyond measurement, and focuses more on theory and context. In addition, the theoretical framework in this research was extended, to make sure coding could be done precisely in line with the theory.

³ http://www.psychologysoftwaredistribution.com/ATLAS_ti/atlas_ti.html (June 29 2013)
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Although the qualitative approach has some advantages over the quantitative approach to content analysis, there are some objections to this approach as well. The directed approach to content analysis present some challenges due to the use of theory. By using theory, researchers approach the data with an informed but, nonetheless, strong bias. Hence, researchers might be more likely to find evidence that is supportive rather than non-supportive of a theory (Hsieh & Shannon 2005: 1283). Since this research is a policy research, aiming at finding out whether the Dutch government takes certain risks into account, this limitation is not that much relevant compared to researchers aiming at testing a theory. However, it could be the case that no evidence might be found when the selection of data was not carried out properly, and the wrong policy documents are examined, while the answers might be in other policy documents still 'out there', which are not in the data base. Unfortunately, due to time it was not possible to search for more policy documents, so this might be considered a slight flaw in this research.

Another limitation can be an overemphasis on the theory, which can blind researchers to contextual aspects of the phenomenon. These limitations are related to neutrality or confirmability of trustworthiness as the parallel concept too objectivity (Lincoln & Guba 1985 in, Hsieh & Shannon 2005: 1283). This criterion is met by carefully setting out an theoretical framework, with specific characteristics of the new demands of the knowledge economy. Furthermore, this theoretical framework is discussed several times by peers, to made sure it was of good quality. In addition, all the policy document were read with precision, so possible new categories were recognised and incorporated in the research.

4. Results

In this chapter of the thesis the results of this research are presented. First I will give a short description of the documents that were analysed. Next, the time-line will be discussed, since the documents that were analysed have publication dates that vary from 1998 to 2013. After that, it will be discussed how the concept 'knowledge economy' has been defined by the ministries. In the next section, the results will focus more on the questions to what extent the Dutch government recognises the new demands, new risks and new social risk groups in the knowledge economy, and which policies are used to address these issues. Finally, new subjects will be discussed that popped up during the research.

4.1 Description of the documents

The documents analysed in this study were published either by the ministry of OCW (ministry of Education, Culture and Science), EZ (ministry of economics) or EZ & OCW together. From the total of 30 documents, 7 documents were published by EZ, 2 from EZ & OCW and 21 by OCW. Some documents contained information about specific policy measurements, while other contained more general goals or ambitions, together with a description of the (changing) situation. Further, some documents were an evaluation of policies and results over a certain number of years.

4.2 Over time: 1998-2013

As is described above, the publication dates of the analysed policy documents range from 1998 to 2013. The common thread in the articles is the The LifeLongLearning policy direction, which started in started in 1998. In that time, the focus was to keep people 'employable', via Lifelong learning. The first goal was to make people aware of the necessity of lifelong learning. Employees and employers were responsible to keep their knowledge up to date, and the government took responsibility for those who were unemployed or were perceived as groups with a 'disadvantage'.

In the years following years, more emphasis was put on education. Since the knowledge economy asks more from employees and learners, there are also new demands for education such as flexibility. In short, it can be argued that before the year 2000 the focus was

more on keeping people employable by lifelong learning, and the idea that investments in education were necessary.

In the next years the vision of lifelong learning stayed, though extra dimensions were added to it. Policies were made for pre-school education (VVE), innovation and creativity skills for employees, more autonomy for educational institutes, ICT skills, basic qualifications and excellence. By 2013, a number of policies were added to the lifelong learning approach, and more goals were formulated. The lines of these changes are also embedded in the changes from European policies. Around 2000 until 2010, there was a strong parallel relation with the Lisbon Agenda. While around 2010, goals were adjusted to the Europe 2020 strategy.

4.3 Knowledge economy: a definition

After the analysis of the policy documents, it became clear that the Dutch government did not provide any definition of the new situation: the knowledge economy (or knowledge society), even though the concepts ‘knowledge economy’ (*kenniseconomie*) and ‘knowledge society’ (*kennissamenleving*) were used 136 times in the documents. However, in one document from the OCW titled ‘the knowledge agenda’ (PD87), a description of the development of the knowledge society was provided. According to the OCW, the development of the future knowledge society is the result of interdependent processes (Figure 1).



Figure 1: Knowledge society (kennissamenleving) = knowledge democracy (kennisdemocratie) → innovation → knowledge economy (kenniseconomie) → labour market → Onderwijs (education) → citizenship → knowledge democracy.

The expansion of education led to an increase of the supply of higher educated people. Further, a cognitive, social and communicative skilled labour force is a stimulating factor for the development of a knowledge economy. Science and technological developments lead to knowledge-intensive and excellent products and services. Furthermore, the productivity in the new economy increases due to the use of new technology, research & development (R&D) and a better use of scientific knowledge. Finally, technological and scientific developments and globalisation leads to a different kind of economy, in which the production of goods and services demands a high level of cognitive and social skills from workers (PD87).

The summative approach towards content analysis provided a tool to analyse the context and the underlying meaning of the concepts knowledge economy and knowledge society, when used in the other documents. Even though the OCW made a distinction between the two concepts in their 'knowledge agenda', in other documents the distinction between the two is not very visible, or not even there. Both EZ and OCW use the concept knowledge economy more often than the term knowledge society (EZ 17:2 & OWC 72:45), and both ministries recognise the role of education in the knowledge economy and knowledge society. This is visible in the next citation:

PD89, OCW: Onderwijs vormt tevens de kurk van onze welvaart en is een sleutelfactor in de huidige kennissamenleving. (education is a key factor in the present knowledge society)

PD20, EZ: Naast onderzoek en innovatie heeft (hoger) onderwijs hier een belangrijke rol. Binnen het onderwijs worden immers cruciale vaardigheden opgedaan die van belang zijn voor een innovatieve kennissamenleving. (Education has an important role, next to research and innovation. Crucial skills are learned with education, which are important for an innovative knowledge society)

Other factors that are often mentioned in relation to the knowledge economy and knowledge society are innovation, science and research. Sometimes the ministries speak of the 'upcoming knowledge society', while in some documents they speak of the 'existing knowledge economy'. One would expect these differences to be explained by time, but this expectation could not be confirmed.

In sum, no explicit definition was given, but there were several factors often mentioned next to the knowledge economy or knowledge society namely education, research, and innovation. From these factors, education was stressed the most. A possible reason for this

is the emphasis that the EU put on education and training in relation to the knowledge economy (Commission of the European Communities 2002).

In the next section, the new demands of the knowledge economy will be discussed, in particular the codification of knowledge, ICT skills, keeping your knowledge up to date, higher education and soft skills.

4.4 New Demands

The ministries of EZ and OCW both notice a shift in types of work, namely from manual labour, to provision of services in the knowledge economy (PD53). In addition, knowledge and information are identified as the key drivers of the economy and society – 'we are heading towards a knowledge economy'. The ministry of OCW considers several processes to be the drivers of the coming of the knowledge economy. One is, for instance, the coming of ICT, and the digitalisation of society – the 'information society'.

Codification & ICT

Information is now quickly available, accessible to a wide public, and technological changes come about quickly. The Dutch government observes that knowledge is now widely available through the internet, and it stimulates the process of codification of knowledge. This becomes clear in the following citation: PD78, OCW: 'ICT maakt ook het codificeren van tacit knowledge mogelijk' (ICT makes codification of tacit knowledge possible). This digitalisation of knowledge and information results in a large amount of knowledge that is directly available, which increases the speed of knowledge development. These results run parallel to the theoretical description about the codification of knowledge in the knowledge economy (Nonaka 2000; Houghton & Sheehan 2000; Hoogenboom et al. 2008).

The Internet and other (new) technologies can be used as a tool for Dutch citizens to be better informed and stay up to date, partially due to the easy access of information. The ministries therefore stress the importance for the entire population to acquire ICT skills, in order to keep or get a job, or to maintain social contacts:

PD14 'Kennis en vaardigheden om met ICT om te gaan vormen steeds meer een voorwaarde voor bijvoorbeeld het verkrijgen en behouden van werk en een succesvolle carrière en voor het onderhouden van sociale contacten: ze zijn belangrijk voor het optimaal benutten van en deelnemen aan de informatiemaatschappij. Nederland heeft dus eVaardige mensen nodig, in alle facetten van hun bestaan: op het werk, in de leeromgeving en privé. (having ICT knowledge and skills are now a precondition in order to get or keep a job, as well as to maintain to have social contacts. In other words, they are important to benefit from and participate in the information society. The Netherlands therefore need 'eSkilled' people in all parts of their life: work, private and educational environment.)

In other words, ITC skills are considered important for individuals in their private, working and learning environment. However, both ministries stress that demands for ICT skills can also lead to disadvantages for people who find it hard to keep track of all these new technologies. This will be explained in the 'New Social Risks & New Social Risk Groups' section.

Knowledge out of date

A consequence of the technological developments and the growing importance of knowledge as the driver of the economy is that knowledge is now rapidly outdated, which makes the labour market dynamic. The ministries explain that employees must keep their knowledge up-to-date, and adapt to the newest insights in their field of operations, in order to stay competitive in the labour market:

PD21 : 'Een andere eis waaraan toekomstige werknemers zullen moeten voldoen is [...] hun kennis- en vaardighedeniveau steeds op peil te houden en dus aan te passen aan de nieuwste inzichten op hun werkterrein'. (Another demand that new employees/workers needs to fulfil is to keep their knowledge and skills level up to date, and adapt to the newest insights on their field of operations).

Because:

PD01, EZ: 'Participatie in de dynamische kenniseconomie vereist dat mensen hun kennis en vaardigheden op peil houden. Technologische, sociale en organisatorische innovaties zorgen immers voor meer veranderingen binnen functies en beroepen'. (Participation in the dynamic knowledge economy demands that people keep their knowledge and skills up to the mark. Technological, social and organisational innovations have as a consequence that there are more changes within functions and professions).

In other words, due to this dynamic knowledge economy, people do not have a 'job-for-life'. This requires them to make sure they keep track of the changes and new knowledge, in order to hold a strong position on the labour market. In order to do so, the ministries argue, people need to learn throughout their entire life, formal education from your youth is not enough any more. The government describes this new requirement of the knowledge economy as 'lifelong learning', which means that even when people have a job, and no matter how old they are, they still need to learn:

PD89 'Leren is voor alle leeftijden. De kennis die leerlingen en studenten opdoen in het onderwijs is niet meer voldoende om een leven lang op de arbeidsmarkt en in de maatschappij terecht te kunnen. Werknemers moeten zich voortdurend bijscholen om de maatschappelijke en technologische ontwikkelingen te blijven volgen. Werkzoekenden moeten in staat zijn door het volgen van opleidingen aan hun eigen inzetbaarheid te werken. Het op peil houden van kennis en vaardigheden is niet alleen van belang voor de betreffende individuen zelf, maar is ook van grote maatschappelijke betekenis. (learning is for all ages. The knowledge that students learn in education is not enough anymore to be able to be competitive on the labour market their entire life. Employees must therefore keep on updating their skills, and people who are looking for a job must follow education to work on their own availability'. Keeping your knowledge and skills up to date is important for individuals, but also for society).

In short, it can be argued that the government is aware of the new demand in the knowledge economy to keep your knowledge up to date, in order to stay competitive on the labour market. In this way, there seems to be a parallel with the theoretical chapter. However, there is a crucial difference in the argumentation. For instance, David & Foray (2001) argue that keeping your knowledge up to date goes beyond constant updating of technical knowledge, workers must also pertain to the capacity to understand and anticipate change. In addition, Seltzer & Bentley (1999) argue that it is also about generic learning abilities: learning to learn, and knowing what we do not know, besides just updating your skills.

Next to the demand to keep your knowledge and skills up-to-date, it is also necessary to achieve a certain level of knowledge: higher education is necessary.

(More) Higher educated people

Besides the foregoing demands of the knowledge economy which are recognised by the ministry of OCW and EZ, another demand that is stressed in most of the documents is the educational level of people, and the necessity for a bigger group of higher educated people, especially now that low-skilled vocations are disappearing to low-wage countries: PD86: 'En ondertussen verdwijnt ongeschoold werk naar lage lonenlanden'. (Meanwhile, low-skilled work disappears to low-wage countries). Especially vocations which require routine jobs will disappear. Therefore, higher educated people are necessary in a service and knowledge economy, where knowledge is the driver of productivity:

PD21 'Her arbeidszwaartepunt verschuift steeds meer van landbouw en industrie naar dienstverlening. Daarvoor zijn meer hoger opgeleiden nodig (er is minder behoefte aan laaggeschoolde arbeid) en meer specialisten in communicatie en technologie'. (there is a shift from agriculture and industry towards a service economy. Therefore, (more) higher educated people are necessary, and more specialists in communication and technology).

In sum, the government realise that people nowadays need higher education more than ever. In addition, the ministries emphasise that there is a need for specialists in communication and technology, but can be considered as being related to macro economic goals to stay competitive in the international economy by being innovative, rather than what an individual worker or learner needs in the knowledge economy.

Soft skills

Not only the level of education must be higher, the knowledge economy asks for other forms of knowledge and skills, which the ministry of OCW describes as 'advanced skills':

PD87 'De kennis- en diensteneconomie vraagt om andere vaardigheden. Basisvaardigheden en vakspecifieke vaardigheden blijven, vooral in de toegang tot de arbeidsmarkt, voor grote groepen van jongeren belangrijk. Maar daarnaast neemt het belang van zogenaamde advanced skills toe, en zijn bijvoorbeeld sociale en communicatieve vaardigheden, klantgerichtheid, samenwerken en doorzettingsvermogen, voor veel functies in de diensten economie van essentieel belang geworden. (the knowledge and service economy asks for different skills. Basic skills and skills specific for a certain profession will maintain important, but the importance of advanced skills increases. For instance social, communicative and team skills are now of vital importance in a lot of professions in the service economy).

These skills are described in more detail in the following citation:

PD21 'De kenniseconomie vraagt om specifieke kennis en vaardigheden (competenties): zelfstandigheid, creativiteit, mondigheid, probleemoplossend vermogen, flexibiliteit, communicatieve vaardigheden (kennis van ICT), kunnen samenwerken, innovatief vermogen, en bovenal: leercompetenties (leren te leren: metacognitieve competenties en motivationele zelfregulatie) om alles bij te houden (Leven Lang Leren). (The knowledge economy asks for specific knowledge and skills (competences): independence, adulthood, problem solving,

flexibility, communicative skills (knowledge from ICT), being able to work together, to be innovative and especially: learning competences (learning to learn) to keep up to date (LifeLong Learning).

In other words, the government noticed the 'soft skills' that are necessary in the knowledge economy, which the ministry of OCW calls 'advanced skills' which are skills related to communication, teamwork, learn competences and lifelong learning. It is stressed that basic skills maintain to being important, but that these advanced skills become more important nowadays. In this way, the argumentation from the Dutch government runs parallel to the arguments of Seltzer & Bentley (1999), Cope & Kalantzis (2000) and Kalantzis, Cope & Harvey (2003).

In sum, several new demands of the knowledge economy were noticed namely the need for ICT skills, the need to keep your knowledge up-to-date, to have higher education and to learn soft skills. In the next section the new risks and new social risk groups are discussed, because what happens if certain groups cannot live up to these new demands?

4.5 New social risks & New social risk groups

The Dutch government identifies emerging risks due the new knowledge and skills that are necessary in the knowledge economy. If people lack the essential knowledge and skills, they will be unable to find a job, and in a society where a part of the population is unemployed, a bipartite division can arise, where negative social and economical factors reinforce each other. In other words, individuals or groups can face the risk of social exclusion if they are not rightly equipped for the knowledge society. In the following section, these risks will be discussed in more detail in line of the policy documents.

ICT skills

The government perceives having eSkills (eVaardigheden) as an important criterion in the knowledge economy. These skills are important to participate in the information society, and to contribute to the knowledge economy. People who fall behind in obtaining these skills miss access to unique information and/or communication possibilities. This backlog is intensified because others, such as the government herself and businesses, assume that everybody in the meantime possess basic eSkills. In other words, if people do not have these skills, or have low ICT skills, it can put them in a marginal position.

At the moment, more than one of the three Europeans does not fully participate in the information society, they experience digital exclusion. When these groups can profit fully from the advantages and benefits from ICT, this can contribute to economical and social improvement (P4, PD07; P6, PD14). The Dutch acknowledges this as well, and suggest that several groups in the society have trouble with keeping up with the digitalisation of the society. It involves people who are temporary or long-term non-active on the labour market, low educated people, migrants (allochtonen) and people with an age above 50. Despite the differences between these groups, they all experience the same problem – they cannot fully benefit from the possibilities that the information society offers since they lack the basal eSkills (eVaardigheden). Subsequently, they miss opportunities, both as a consumer as a (potential) employee (P6, PD14).

Most of these groups are especially vulnerable because they are hard to reach via the work environment. In addition, they are often less capable, and often less prepared, to upgrade their eSkills to a higher level. Subsequently, people who are able to upgrade their eSkills to a

basal level, possible realise an increase in (labour) productivity and they obtain benefits as a consumer, which they otherwise could not have.

In academic literature, a lot of attention was given to the necessity of technology and ICT for innovation and the knowledge economy in general. However, although the ministries of OCW and EZ recognise this new need, in the academic literature this new need is not emphasised as much as was done in the policy documents.

Knowledge up to date / Life Long Learning

According to the ministries, not only should people keep their ICT knowledge up-to-date, but also the knowledge in their field of operations, in order to stay competitive in the labour market, and to stay integrated in society. In other words, those who do not keep their skills up-to-date run the risk of losing their job, or to stay unemployed.

The ministries argue that some groups in society are less able to keep their knowledge up to date, and to participate in lifelong learning than others. According to the OCW, a division should be made here between employed people and employers, people with a disadvantage and people who are searching for a job. There are several factors that the government identifies that affect the education participation rates in the working professional population namely:

PD106 'The main factors are age, education level, employment relation and labour market position. Participation in schooling declines as people get older, with regard to both enrolment in formal education and other training activities (non-formal education). The education level tends to be decisive: the higher de education level, the more people enrol in courses. The labour market position also plays a key role: in the age groups up to 55, course participation was lowest among self-employed people. The measure to which older people participate in courses is less dependent on their labour market position. Whether people are in full-time or part-time employment does not affect their schooling activities. With regard to the aggregate processional population, participation in schooling is highest among those with flexible contracts'.

In other words, older people, lower educated people, self-employed are considered less likely to participate in education which results in a vulnerable position when it comes to keeping the knowledge up to date, and maintaining a strong labour market position. In other words, the

ministries recognise that these groups have less 'capabilities' to in order achieve a proper position on the labour market.

The unemployed are already at risk in a knowledge society. The Dutch government explains that work can help to integrate into society. When people are active on the labour market, they are less likely to become marginalised. Unemployed people on the other hand, are more likely to become marginalised, and are more at risk of poverty. To become employed, however, it is necessary to have proper education. In addition, the ministry of OCW and EZ argue that education not only has a qualifying function, to make it possible for people to find a job, but also a socialising function, because people with (higher) education are often more positive about their lives than lower educated people, and higher educated people score higher on social capital. Further, they also are more involved in the society through political participation and voluntary work. In this way, education contributes to social cohesion (PD62). Related to Sen's capability approach, the government argues that education is an important, and perhaps vital, capability, since it is a means to several ends namely work, a positive life, and participation in society. For that reason, it is the government's opinion that *all* people should participate in Life Long Learning.

(More) Higher educated people

A new demand described above is the demand of higher education. Low-skilled jobs are disappearing to low-wage countries, as a consequence that there are less low-skill vocations in the Netherlands, and more risk of unemployment for people with low education. The government translates this new demand into the idea that most people must have a basic qualification. Subsequently, the Dutch government argues that early school leaving can therefore be considered a risk, because leaving school without having a basic qualification will put you in a risk of unemployment, and subsequently poverty and marginalisation:

PD62 'Het volgen van onderwijs is de investering waard, voor zowel de overheid als het individu. Dit geldt ook voor opleidingen op startkwalificatieniveau. Met een startkwalificatie heb je meer kans op werk. (following education is worth the investment, both for the government as for individuals. This is also the case for diploma's on the 'basic qualification' level, because achieving a basic qualification results in a better chance to find a job).

In other words, in the knowledge economy it is necessary to have basic qualifications in the

form of knowledge and skills, but there are certain groups in particular that have high numbers of early school leavers, such as *allochtonen* (migrants) and *autochtonen* (natives) with a low social economical background. A person is considered *autochtoon* if both parents are known to be born in the Netherlands, or if one of the parents is born in the Netherlands, and the land of birth of the other parent is unknown. When it is known that at least one of the parents is born outside the Netherlands, the student is considered *allochtoon*. When both parents were born outside the Netherlands, the country of birth from the mother was adopted as the allochtone origin. The Dutch government also makes a distinction between western and non-western *allochtones* (PD 84).

Both in participation rates, as well as success rates there is segregation between allochtones and autochtones. Non-western allochtone students are less likely to participate on a havo/vwo level than autochtones. Early school leaving is the highest in vmbo, and most allochtones participate in this level. In addition, allochtones often fall behind in language competences and so do autochtones with parents from a low social economic background. In other words, allochtones already have a disadvantage due to their backlog in language competences. It is often mentioned that the cause of the low participation and performance rate from non-western allochtones in higher education is the socio-economic background from the students. The education level of the parents with a migrant background is often lower than those students with parents who have their roots in the Netherlands. Further, children who have a non-western (non-Dutch) background often grow up in weaker social-economic positions, compared to western or Dutch children.

There are students who, without extra care, are not able to participate in (regular) education. For instance children who have difficulties with learning, have arrears in learning, or who have physical handicaps which form an obstacle in following regular education. Another group of people that is at risk in this economy are the illiterates, people who experience difficulties with reading and writing.

In sum, in the policy documents, several groups are repeatedly perceived as groups vulnerable to the risks mentioned above namely: older employees, youngsters, people who do not participate in the (active) labour market (any more), lower educated people, employees without a basic qualification and flex-workers (people with a flexible contract). Especially migrants seem to struggle, due to their backlog in language competences, and possibly also due to their social-economic background. All together creates an environment with not much

possibilities (capabilities) to escape from this spiral. This relates to the theory that for people who start with a relatively bad position in the knowledge economy, it is harder to keep up or climb up the ladder. It is therefore necessary for the government to address these risks and risk groups.

Soft skills

The government recognises the new demand for soft skills. In addition, the ministry for OCW realises that this is especially a (difficult) task for vmbo and mbo education, because these forms of education are directed towards learning job specific skills, instead of general soft skills that are now necessary in the knowledge economy. Although there was not explicit explanation in the policy documents, the ministry of OCW seemed to be aware of the greater risk that vmbo and mbo students have, especially compared to students in higher education. This will become more clear in the policy section.

Overall, the ministries seem to recognise a number of new social risks and new social risk groups, even though not all were explicitly mentioned, or described in detail. In the next section, the policies that are used to address the new needs, risks and risk groups will be discussed.

4.6 Policies: the goals and instruments

In the policy documents, several goals and policies related to the knowledge economy and its new demands and risks for workers and learners were found. These will be discussed in this section.

ICT Skills

First of all, in order to increase the ICT skills from vulnerable groups, the government launched the eInclusion programme. The goal is to motivate people in all groups that are behind in the field of eSkills, often older people, migrants, unemployed or inactive people and lower educated people, and to tempt them to acquire and use eSkills. The instrument that the government is going to use are information and counselling, and awareness actions through the programme 'Digibewust', Seniorweb, CWI and small-scale pilots on local level, to increase the level of transparency of the course supply in the neighbourhood:

PD14 [De doelgroep:] alle mensen zonder basale eVaardigheden, in het bijzonder zij die moeilijk bereikt kunnen worden via de werkomgeving: ouderen, inactieven, allochtonen, laagopgeleiden. [Het doel is] mensen in alle achterblijvende groepen motiveren en verleiden tot meer verwerven en inzetten van eVaardigheden. [De instrumenten hiervoor zijn] voorlichtings- en bewustwordingsacties via programma Digibeweust (middels publiek-private samenwerking), Seniorweb, CWI en kleinschalige pilots op lokaal niveau, vergroten transparantie cursusaanbod in de buurt en bevorderen online scholingsmogelijkheden. (Target group: all people without basic eSkills, in particular groups who are hard to reach. Goal: motivate people who stay behind in possessing eSkills. Instruments: education and awareness programmes via Digibewust)

Knowledge up to date

The government argues that in the knowledge society, it is not possible to solely rest on your formal education your entire life. You must keep your knowledge up to date, and you do not have a 'job for life' any more. Therefore, people must invest in their education, and follow education there whole life, not matter what age or education level. In other words, life long learning can be seen as a goal, but also as a means to an end namely to stay up to date and therefore to improve your position on the labour market. Lifelong learning therefore contains measures ranging from pre-school education, to flexibility of educational institutes, and create

awareness of the urgency of lifelong learning for the entire the population. In sum, a number of measures were taken that involve lifelong learning namely pre-school education (VVE), education for adults (VBE), recognising achieved competences (EVC) and flexibility in education. Especially VBE is of great importance, since it contains priorities in the form of connecting the different levels of education, to increase and ease the student flows to higher education, to connect mbo to the labour market, education focused on competences (CGO), more uniformity and quality in education and finally the stimulate entrepreneurship:

PD21 'Voor het BVE-beleid van OCW zijn in de strategische agenda de volgende prioriteiten genoemd: (1) de aansluiting van het vmbo op het mbo, en die van het mbo op het hbo (oftewel de doorstroom en het voorkomen van uitval en verspilling van talent daarbij, (2) de aansluiting van het mbo op de arbeidsmarkt (in samenwerking met het MKB, per regio), (3) competentiegericht onderwijs (CGO), (4) meer eenheid in kwaliteit (door controle op examens en op het aantal contacturen, maar ook door professionalisering van documenten en (5) het bevorderen van ondernemerschap'. (For the be policy from the OCW, there are the following priorities: (1) to connect vmbo to mbo, and mbo to hbo (to increase the student flow and to prevent early school leaving and the waste of talent when that happens), (2) to connect mbo to the labour market (in collaboration with MKB companies), (3) competence-based education (CGO), (4) more unity in quality (by controlling exams and amount of 'contact hours', as well as professionalising teachers), and finally (5) to stimulate entrepreneurship.

Since lifelong learning is also an end, these measures and policies will be discussed in the following sections.

(More) Higher educated people

One of the most mentioned new demands of the knowledge economy, as noticed by the government, is the need for more and higher educated people. Nowadays, low-skilled people are at risk of poverty and marginalisation, because they cannot find a job any more. In order to prepare the population for the knowledge economy, everybody must have a proper basic knowledge and skills. Their reasoning is that all policies regarding education and the labour market are also aimed at reducing poverty and exclusion. The Dutch government has several policies in order to achieve that goal. The cabinet uses participation on the labour market as an important instrument to achieve social inclusion. It must be prevented that people are

permanent unemployed, and therefore on the other side of the road. All measures in order to increase labour participation are therefore relevant for social inclusion and poverty policy (P8, PD20). In addition, as is described above, education is also an important mean to increase social inclusion. Therefore, the Dutch government will focus mostly on these two factors.

The aim of the Dutch education policy is to equip as many young people as possible for a modern knowledge society. The award of basic qualifications is the main priority. First of all, the government wants to achieve that the biggest share of all people have a so called 'basic qualification' (*startkwalificatie*). This means achieving a finished education on at least higher secondary level. In the Netherlands, this means a diploma on at least havo, vwo or mbo-2 level (PD84). A basic qualification is internationally perceived as a necessary condition to be able to properly participate to the modern knowledge society. In order to achieve the goal mentioned above, the government has a strategy to prevent early school leaving in order to make sure more pupils finish their education and require a basic qualification. This strategy/perspectievennota is called 'Aanval op schooluitval' (Attack on early school leaving). This strategy contains several policies and actions, which took off in 2006.

First of all, there was the introduction of the 'Leerplichtwet'. In this law was a proposition about the introduction of a qualification duty until the age of 18 in the Leerplichtwet. The qualification duty was accepted per August 1 of 2008. In addition, the government wants to achieve a reduction of the early school leaving to 56 000 pupils in the academic year 2005-2006 (PD79). Therefore, policies were made for preventing the development of backlogs in the pre-school period, and to reduce the amount of early school leavers, both part of the Lifelong Learning programme:

PD86 Zij [jongeren] zullen geen deel hebben aan de kennissamenleving van morgen [als er geen beleid wordt gemaakt] en daarmee maatschappelijke buitenstaanders worden, met alle gevolgen van dien. Maatregelen ter bestrijding van voortijdig schoolverlaten vragen daarom om een aanpak via twee sporen, één spoor gericht op het tegengaan van het ontstaan van achterstanden in de voorschoolse periode, en een tweede spoor gericht op het terugdringen van het voortijdig schoolverlaten. Deze maatregelen vormen een onmisbaar onderdeel van een systeem van 'een leven lang leren'. (If there are no policies, youngsters will not become part of the knowledge society, and will become outsiders. Therefore, measurements to fight early school leaving are twofold: to fight against backlogs in the preschool period, and to decrease the number of early schoolleavers. These policies are part of the system of 'lifelong learning').

The prevention of backlogs in the pre-school period is called early childhood education (VVE). Preschool education focuses on target group children aged 2,5 to 4 that are at the end of childcare or preschool playgroups. By offering VVE, language and/or educational disadvantages among children are addressed early (PD106).

Another way to create a 'smart society' with higher educated people is to make sure more people (can) participate in higher education, and to maintain or upgrade the quality of education. Several measures were taken in order to achieve these goals. First of all, the quality of the teachers must be good, in order to make the quality of education properly. Secondly, the education institutes were given more autonomy (PD107). In other words, the education institutes are responsible for the achieving the goals, and they can decide for themselves how they want to achieve the goals. The goals, however, are set by the government (PD21).

The minister of OCW is also responsible for the access of education (PD85). Access to education depends heavily on the financial factors, as well as socio-economic status (PD62). 'Access' is defined by the Dutch government as 'equal opportunities with the influx, the participation and the flow through to further (higher) education (PD62). In other words, the educational career of a random individual is independent from factors such as social economic, ethnic or cultural background. Talent and achieved results must be the determining factors in the educational career of an individual. The government makes education accessible in providing financial means to parents who are otherwise not able to pay for the costs of their child in education. Basal education in the Netherlands is therefore free, tuition fees are dispensed and school books are free now. In addition, there is a 'Wet tegemoetkoming onderwijsbijdrage en schoolkosten' (WTOS), and for higher education (hbo & wo) there is 'studiefinanciering':

PD88: 'De Wet tegemoetkoming onderwijsbijdrage en schoolkosten (WTOS) is vanaf 1 augustus 2001 van kracht. De WTOS bevat bepalingen voor de tegemoetkoming in studiekosten voor [een aantal groepen]'. (The law 'tegemoetkoming onderwijsbijdrage en schoolkosten' is launched on the first of August 2001. This law contains measures to help certain groups financially with their study costs.

Another way to increase the accessibility of education, in particular higher education, is so called 'stapelen'. In the Netherlands, it is possible to follow a path from a relatively low
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education to higher education. For instance to start in vmbo, and follow tertiary education in mbo and after that you also have the qualification to follow higher education in the form of hbo. This 'stapelen' in combination with flexibility of the educational system in the Netherlands increases the accessibility (PD62). This makes (higher) education accessible to several groups, and as a consequence the level of higher educated people in the Netherlands will increase.

Soft skills

As is described above, there is a need for different skills in the knowledge economy, advanced skills. However, the Dutch government notice that it is not entirely clear how to address and teach these advanced skills:

PD87 Uit veel onderzoek blijkt dat werkgevers veel waarde hechten aan deze advanced skills. Hoewel het dus duidelijk is dat de arbeidsmarkt deze vaardigheden vraagt, is het nog niet duidelijk hoe je deze vaardigheden het beste kunt aanleren. [...] Het beperkte onderzoek bevestigt de effectiviteit van werkplekleren voor persoonlijke ontwikkeling, motivatie, beroepsvaardigheden en sociale en communicatievaardigheden. Aan academische vaardigheden en vermogen om problemen te analyseren draagt werkplekleren minder bij. Ook lijkt werkplekleren niet bij te dragen aan een houding die vereist is voor leven lang leren (Nelen, et al. 2010, in PD87). (Research suggests that employers and the labour market ask for these demands. However, it is not yet clear how to teach these skills. The small amount of research that has been done on this topic, however, confirms the effectiveness of learning in the workspot (werkplekleren) for personal development, motivation, skills for a certain profession and social and communicative skills. However, academic skills and the ability to analyse problems are not entirely met in learning on the workspot. It also does not contribute to the attitude that is required for lifelong learning.)

Although the Dutch government admits that it is still not entirely clear on how to address and teach these advanced skills, *werkplekleren* (learning in the workplace) is considered as a good option to teach at least a share of the skills. Werkplekleren is incorporated in 'competentiegericht leren' in the MBO and in 'practicums' courses in school, which can be described as follows:

PD21 'Competentiegericht onderwijs. Een belangrijke bijdrage [...] vormt de invoering van de nieuwe kwalificatiedossiers in het mbo. In deze dossiers is vastgelegd welke competencies, vaardigheden en vakkennis studenten moeten beheersen, willen zij hun diploma halen. Deze ontwikkeling is van onderop ontstaan vanuit de vraag van het onderwijs én het bedrijfsleven'. 'Comptence-guided education. An importance contribution is the new *kwalificatiedossiers* in the mbo (secondary vocational education). In these files is recorded which competencies, skills and knowledge students must have in order to achieve their diploma. This development came into existence following the 'bottom-up principle' – the demand came from education institutes, as well as from businesses.)

In addition, the government has the goal to increase craftsmanship and pride of professions, by increasing the connection between education via cooperation between education and the workplace. In order to achieve these goals, there a subsidy for vocational education in a company, to make *praktijkleren* (learning by working) possible in the MBO education.

4.7 Policies: classifications

Overall, it can be concluded that a range of different policies were used in order to meet the new demands of the knowledge economy, and to prevent and help groups that are at risk due to these new demands of the knowledge economy. According to Knijn & Smit (2009), three policy paradigms are used in the post-industrial society. All these three different types of policies were encountered in this study.

Only one policy could be described as the individual life course perspective, namely the 'spaarloonregeling':

PD 86: In lijn met het Belastingplan voor de 21ste eeuw wordt voorgesteld voor werknemers en de bestaande spaarloonregeling onder andere toe te spiten op scholing. In dit plan wordt overwogen scholingskosten en verlof expliciet op te nemen als één van de spaardoelen. (In line with the tax plans for the 21st century, it has been proposed for employees to direct their existing *spaarloonregeling* towards schooling. In this plan it is considered to take schooling costs and leave explicitly as one of the saving goals.

In other words, people are (individually) responsible for their own education, to make sure they can stay competitive on the labour market and keep their job. This individualising of social risks can be shared under the ILC perspective.

It can be argued that most policies related to the knowledge economy are social investment policies because they all ask for 'investments', especially in education policy: the government not only wants to tackle youth unemployment, but also prevent it by providing a high standard of education that meets the needs of the labour market. However, when taken a closer look, active labour market policies are visible as well, especially the most recent documents contain policies or ideas that can be shared under the active labour market model. This is visible in the following quote, where emphasis is put to get people active on the labour market again as soon as possible:

PD45: The goal is to help people who are threatened with redundancy to find another job and so avoid being unemployed. It is important that anyone who nevertheless does have to claim unemployment benefit finds new work as quickly as possible. Employers and employees are primarily responsible for preventing unemployment and are committed to doing so in order to

preserve the current level and duration of unemployment benefit. The government will reduce the maximum period for which unemployment benefit is paid from public funds to 24 months.

Sometimes, it is a combination of the two paradigms:

PD45: More importantly, both employers and employees will prevent unemployment as far as possible by investing in training and job mobility throughout an employee's career.

In other words, often the government and social partners are jointly seeking ways of increasing labour participation, which is considered as a characteristic of ALM policy (Knijn & Smit 2009) but is there still an emphasis on prevention by investment, which can be considered as a characteristic of the SI approach (Knijn & Smit 2009).

4.8 New & Noteworthy

Taken into account the above results, it can be suggested that the government recognises a lot, if not all, new demands. There are also new demands noticed by the ministries, that were not illustrated in the theoretical chapter. For instance, what was already mentioned briefly, the strong emphasis that is put on ICT skills for both citizens as employers, as well as for the economy at large.

Another new demand that the government describes is the need for a different attitude and a different culture in education. The ministry of OCW wants to change the 'zesjescultuur' (average culture) in education to an ambitious study culture - people must strive for excellence:

PD85 'Het kabinetsbeleid is gericht op het creëren van een ambitieuze studiecultuur in het hoger onderwijs. Hiervoor moet de basiskwaliteit van het hoger onderwijs worden verbeterd en excellentie gestimuleerd. (The policy from the Cabinet is focused on the creation of an ambitious study culture in higher education. In order to do this, the basic quality of higher education must be increased and excellence must be stimulated).

The ministries recognise this as a new demand because excellence is necessary to stay competitive as an international knowledge economy. It can be argued that this is related to

macro structures, rather than new demands for citizens on a micro level. However, on the long run people will eventually notice this change, and for that reason 'a change in attitude and culture' is considered a new demand for citizens as well in this study.

Related to this new requirement is the new demand for 'beta and technical staff'. Since innovation in technology is one of the drivers of the knowledge economy, high educated experts in technology are necessary in order to stay innovative. For this reason, the government wants to stimulate this by providing education technology and science already in primary education. This makes it relevant for learners. It is relevant for workers too, because there is a demand for technicians now on the labour market already, and probably even more in the future.

5. Conclusions

In this research, qualitative research was carried out in order to find out if and how the new demands of the knowledge economy, as well as new social risks and new social risk groups were addressed in the Netherlands. In this chapter, the conclusions of this research are presented.

5.1 Sub-questions

The first sub-question was formulated as follows: how does the government define the knowledge economy? To start with, both ministries provided no clear definition of the concept knowledge economy or knowledge society. Also, no clear distinction was found between knowledge economy & knowledge society. But drawing from the context, several elements were considered important in relation to these concepts namely: education, innovation, science and research. In short, although there was no clear definition or distinction made between the concepts, the knowledge economy and knowledge society were considered to be strongly connected to innovation, research, science and in particular to education.

Further, the government recognised several changes in the economy, such as the change from manufacturing and industrial economy towards the service and knowledge based economy. Moreover, not just these changes were noticed, the government already recognised a number of new demands before the year 2000. However, it can be argued that not all new demands were recognised. So, the question: to what extent does the government define the new demands of the knowledge economy' can be answered as follows. On the one hand, they recognise and put emphasis on ICT skills, (more) higher educated people, keep your knowledge up to date and soft skills. On the other hand, they do not recognise as much the need for collaboration, and consequently interdisciplinary knowledge and multi-skilled people. Although these latter skills, as well as soft skills in general, were mentioned as a new demand for workers and learners to a certain extent, the ministries did not really expand on their explanation. Furthermore, besides mentioning the new skills, there was a lack of explanation why these new skills (or new demands in general) were there. Subsequently, this has consequences for how the government identified new risks and new risk groups.

The third sub-question, to what extent defines the government new social risks and new social risk groups related to these new demands, will be answered in this section.

Although the government recognises a lot of social risk groups, the actual risk in relation to the risk group was not always as accurately defined. The ministries describe that there are some groups who experience a greater risk of being marginalised or to experience poverty or social exclusion, and that these problems are strongly related to education, social economic background and relation to the labour market. Moreover, some risks and risk groups were connected to a new demand properly, such as elderly people who often fall behind when it comes to achieving ICT skills, and therefore are excluded in some ways to participation in society. Furthermore, migrants were often mentioned as a new risk group, because most migrant children already have a backlog before they start with their primary education, possible due to insufficient language competences and a low social-economic status from their parents.

In sum, although a lot of risk groups were described, there was a lack of proper explanation of why they are at risk, and what the actual risk was. Only a view new demands were explicitly connected to new social risks, and new social risk groups such as the demand for ICT skills.

What are the policy goals and/or ambitions that the Dutch government want to achieve, related to the new demands and risks of the knowledge economy, and what are the policies related these goals and ambitions? It can be argued that, in general, the government had one goal: to prepare people for the knowledge economy in education. In order to achieve this goal, people must be stimulated to finish school, and to participate in higher education, since higher education is described as a new demand. LifeLongLearning is the main policy that runs through the policy documents as a common thread. Several policies are related to lifelong learning such as VVE. Other policies were targeted at the educational system to make it possible to actually 'do' lifelong learning. Education systems must be made flexible, but also accessible by 'stapelen', but also accessible in a financial way by providing financial support for those who lack the means to study higher education.

A very interesting result of this study is the emphasis on soft skills in the knowledge economy literature. However, although the government recognises that there is a demand for these new skills, it also realises that it is still not clear how we can teach these skills. In other words, although some policies address soft skills, such as 'werkplekleren', these policies are not able to address all the new soft skills that are necessary in a knowledge economy.

In sum, there were quite a lot of policies that were aimed at targeting these new demands. In addition, there were also policies specially designed to target new social risk groups, such as the policies to stimulate ICT skills: eSkills & Digibewust for elderly people, and unemployed people.

The final sub-question (how can these policies be described?) can be answered fairly short: all three policies were present in the policy documents, though not all had the same share. Most policies seemed to be social investment policies. However, in the last years, the role of the government seemed to have changed, and so did the policies. More emphasis was put on activating labour market policies, but mixtures of the two were also present.

5.2 Central research question

In this research, the central research question was formulated as follows:

To what extent does the Dutch government define new social risks that occur as a consequence of the new competences necessary in the new knowledge economy, and how does she try to address these new social risks?

In general, it can be argued that the government recognises the new demands from the knowledge economy, as well as the risks and risk groups who join this new economy. Noteworthy is the line of argument of the ministry of EZ and OCW: although the new demands are recognised, the risks and risk groups are not always properly linked to the new demands. In other words, it is not always explicitly explained why certain groups are considered to be risk groups. Reason for this lack of explanation can probably be found in the argument that education is linked to labour market participation, and both education and labour market participation are linked to participation in society. Due to these connections, the government considers policies targeted at increasing labour participation and education also to be part of the prevention and targeting of poverty and social exclusion.

The main approach to address these demands, risks and the risk groups is LifeLongLearning. Policies that can be shared under lifelong learning especially address people who already finished their formal education and are now working, or people who are unemployed. However, part of the lifelong learning approach is also the pre-school education. Another main policy is the prevention of early school leaving, which is related to the goal and need of higher educated people. In order for people to at least have a basic qualification

(startkwalificatie), the government prevents students from dropping out of school before they have achieved this basic qualification.

Most of the risks and risk groups are addressed with social investment policies and active labour market policies. Interesting is that the government spends a lot of attention to the new ICT skills that people need, and to make students and workers aware of the necessity of a new attitude and philosophy in the work and learning environment: the lifelong learning philosophy, and with it, a culture of schooling where it is considered normal to follow courses on a regular basis, and to strive for excellence.

5.3 Discussion

As is mentioned in the answers in one of the sub-questions above, in the academic theory most attention is given to the so called 'new soft skills' that are needed in the knowledge society. However, next to stating that these skills are required, no information is provided on how to teach or learn these skills. Therefore, further research should focus on this point - how can soft skills be taught? Moreover, this should also be a further point of concern for the Dutch government, if it is not a further point on the agenda already.

In addition, although it was not recognised in the theory, the Dutch government noticed that people did not only need other knowledge and skills, but also another attitude towards learning, and a general switch in the culture present in schools nowadays. In addition, it was argued that the attitude of people must change in two ways namely towards learning your entire life, and another attitude towards striving for excellence. This is necessary because people must strive for the best in order to be innovative in the knowledge economy, and consequently to be and stay competitive. This new demand was not present at all in the academic literature, therefore, research must be carried out to find answers on how this culture can be changed, and if this situation is relevant just in the Netherlands, or is also present in other countries either.

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Appendix A: List of Policy Documents

EZ = Ministry of Economic Affairs (Economische Zaken)

OCW = Ministry of Education, Culture and Science (Onderwijs, Cultuur en Wetenschap)

- PD01 EZ (2008) Nationaal Hervormingsprogramma Nederland 2008-2010
- PD02 EZ (2010) Strategische Kennis-en Innovatie agenda van de kenniskamers
- PD03 EZ (2010) Werken aan de innovaties van de toekomst >> als het gaat om innovatie
- PD07 EZ (2009) Jaarverslag 2008
- PD14 EZ ICT Agenda 2008-2011. De gebruiker centraal in de digitale dienstenmaatschappij
- PD19 EZ (2008) Naar een agenda voor duurzame productiviteitsgroei. Nederland Ondernemend Innovatieland.
- PD20 EZ (2010) Concept nationaal Hervormingsprogramma 2010 Nederland.
- PD21 OCW (2009) Nederland Ondernemend Innovatieland. Maatschappelijke Innovatie Agenda Onderwijs
- PD32 EZ (2010) The Future of Cohesion Policy. Joint position paper of the Dutch central, regional and local government.
- PD34 EZ & OCW (2009) Creative Value. Culture and Economy Policy paper, 2009
- PD45 EZ National Reform Programme 2013 the Netherlands.
- PD47 EZ & OCW (2005) Culture & Economy. Our Creative Potential.
- PD53 EZ (2010) Societal Innovation Agenda for Education. Nederland Ondernemend Innovatieland.
- PD62 OCW (2012) Trends in Beeld 2012. Zicht op Onderwijs, Cultuur en Wetenschap.
- PD64 OCW(2007) Het Hoogste Goed. Strategische agenda voor het hoger onderwijs, onderzoek -en wetenschapsbeleid.
- PD68 OCW Werken aan vakmanschap 2008-2011.
- PD70 OCW (2007) Samenvatting van Education at a Glance 2007.
- PD72 OCW(2010) Beleidsdoorlichting Kennisfunctie Hoger Beroepsonderwijs 2001-

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- PD74 OCW (1999) Beleidsagenda HOOP 2000.
- PD78 OCW (1999) Wie oogsten wil, moet zaaien. Wetenschapsbudget 2000.
- PD79 OCW (2007) Jaarverslag en slotwet Ministerie van Onderwijs, Cultuur en Wetenschap 2006. Tweede Kamer der Staten-Generaal.
- PD84 OCW (2012) Kerncijfers 2007-2011.
- PD85 OCW (2009) Jaarverslag en slotwet Ministerie van Onderwijs, Cultuur en Wetenschap 2008. Tweede Kamer der Staten Generaal.
- PD86 OCW (1998) Nationaal actieprogramma Een leven lang leren. Notitie van de minister van OCW.
- PD87 OWC (2010) Kennisagenda OWC.
- PD88 OWC (2013) Kerncijfers 2008-2012 OWC.
- PD89 OCW (één jaar na 'Sterke instellingen, verantwoordelijke overheid') Kracht en creativiteit voor de kennissamenleving. Onderwijs in stelling.
- PD102 OCW & EZ (2005) Our Creative Potential. Paper on Culture and Economy.
- PD106 OCW (2011) Key Figures 2006-2010. Education, culture and science.
- PD107 OCW Secondary Education in the Netherlands: Agenda for 2010 'The pupil Captivated, the School Unfettered'.
- PD108 OCW (2008) MBO, fundament onder de arbeidsmarkt. Gemeenschappelijke agenda 2008-2011. MBO Raad – AOC Raad – Colo – Ministeries van OCW en LNV

Appendix B: Coding tree

- New Demands of the Knowledge Economy
 - Knowledge
 - Up-to-date
 - Higher education
 - Skills
 - Soft skills
 - ICT skills
- New Social Risks
 - Unemployment/poverty
 - Social Exclusion
- New Social Risk Groups
 - Lower skilled
 - Older people
 - Migrants
- Policy goal or policy instrument
 - Social investment approach
 - Active Labour Market model
 - Individual Life-Course perspective
- New: culture/attitude
- New: macro perspective for the economy
- New: entrepreneurship