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Patterns of parenting in the life histories of highly self-regulated learners

Master Thesis

Educational Science and Technology

Evangelia Tiniakou <u>e.tiniakou@student.utwente.nl</u>

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1st supervisor:

Dr. Maaike Endedijk m.d.endedijk@utwente.nl

2nd supervisor:

Rike Bron

r.bron@utwente.nl

UNIVERSITEIT TWENTE.

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Summary

The technological and societal evolvement has caused the need for the continuous development of professionals through different types of workplace learning. It has been argued that self-regulated learning enhances the performance of workers and students. Self-regulated learners are able to plan, monitor and evaluate their learning. Previous studies revealed school factors which can affect students' ability to self-regulate their learning. However, more research is needed in order to identify out-of-school factors which can lead someone to becoming a highly self-regulated learner as an adult. The purpose of this study was to investigate patterns of parenting recurring within the lives of highly self-regulated professionals, focusing on their childhood and their adolescence, which might be impactful on the development of their self-regulatory skills. In order to identify such factors, the life histories of these highly self-regulated learners were investigated through in-depth retrospective semi-structured biographical interviews. The interviews were coded based on the theory as well as on data driven emergent coding and the data were analysed by four investigators.

Based on the results, there are certain parental styles in the early childhood and adolescence which can affect the ability of someone to successfully self-regulate their learning. Parental involvement and especially maternal involvement, parental positive attitudes towards learning and autonomy support and freedom were found to be recurring as common experiences in the majority of life histories of the participants. The findings allowed the formulation of hypotheses for future research about unrevealed factors contributing to self-regulated learning. In particular, the study suggests the investigation of support of personal interests, family activities and structured routines, encouragement of education and early literacy development as well as independency and freedom of choice in relation with self-regulated learning skills.

Introduction

Nowadays, in numerous organisations the need for innovativeness and adaption to the new technologies and demands has arisen. Professionals of academia, business, government and international organisations are expected to have a more active and responsible role regarding their development. To achieve this goal, they need to be able to direct and regulate their learning. Self-regulated learning is considered as a core capability of professional experts (Margaryan, Milligan, Littlejohn, Hendrix, & Graeb-Koenneker, 2009). Thus, selfregulated learning is perceived as an important concept which contributes to and facilitates the process of gaining new knowledge. Loyens, Magda, & Rikers (2008) stated that selfregulated learners can be defined as learners who "have control over their own learning and that they can direct cognition and motivation to achieve a specific learning goal" (p.416). These learners are "proactive in their efforts to learn because they are aware of their strengths and limitations and because they are guided by personally set goals and task-related strategies" (Zimmerman, 2002, p.65). An improved understanding of the conditions that lead knowledge workers to having self-regulation skills could benefit today's organisations and educational institutions. The examination of these factors can also contribute to future research. The findings of such a research allows the formulation of hypotheses about environmental and interpersonal aspects which can influence the process of developing some necessary skills and characteristics in order to become a highly self-regulated learner.

As mentioned above, previous research has shown the effectiveness of self-regulated learning for knowledge workers. However, more research is needed regarding the factors which influence these skills. Such factors can be external environmental factors and can be found in their life histories and specifically during their childhood. Zimmerman (2002) showed that there are some school factors which can affect young children's skills which are related to the self-regulated learning. Additionally, previous research has shown that there are

some teaching strategies, such as strengthening self-management skills and aiming to the development of autonomous and self-reliant students, which can enhance their self-regulated learning skills (Boekaerts & Corno, 2005). On the other hand, out-of-school factors influencing self-regulated learning have not been well studied. Although children and adolescents are exposed in many environments which affect their development such as school, the parental influence remains highly important. As a result, parents need guidelines on how to contribute to their children's well-being as they grow up (Steinberg, 2001). Therefore, it is important to study and reveal these factors.

Grolnick & Ryan (1989) found that certain parental styles affect the ability of children to self-regulate their learning. A possible explanation of the findings given by this study is that children who grow up in an autonomous environment are more able to succeed in a school that promotes and supports the necessity for independency. The present study study is focused on the environment outside of school and particularly in learners' families in order to add new knowledge to what has been studied until now. In particular, looking at their childhood and their past common experiences, the behaviour and the attitudes of their parents could have influenced their learning behaviour.

This research aims to investigate out-of-school factors which can lead someone to becoming a highly self-regulated learner. The study analyses factors in life histories and especially during the childhood and adolescence of knowledge workers. In specific, parental influence in the families of these highly self-regulated professionals are studied. The type of life history method is selected in order to look back to the experiences of the participants because although a longitudinal research would be applicable for the purpose of the study, it is a costly method with high possibility of concluding in inaccurate results (Hagemaster, 1992). In that way, it is possible to investigate childhood experiences in respect of how the adult learners perceive them.

Theoretical Conceptual Framework

Self-Regulated Learning

The term self-regulated learner is used in order to describe people who are responsible for their learning outcomes, capable of setting goals and reflecting on their learning process. They are conscious about their knowledge; they evaluate themselves and organize their learning in order to acquire desirable skills (Zimmerman, 1990). According to Zimmerman (1990), self-regulation can be described as a combination of the formulation of goals and the reflection upon them aiming to a successful performance. Zimmerman (2002) defined self-regulation as a process divided in three phases: "the forethought phase refers to processes and beliefs that occur before efforts to learn; the performance phase refers to processes that occur during behavioural implementation, and self-reflection refers to processes that occur after each learning effort" (p. 67). Self-directed learning is another term that is used to describe a process in which someone takes the initiative to plan his/her learning and reflect on that (Ellinger, 2004). Previous studies have shown that learners who are highly self-directed tend to have better learning outcomes related to their work (Gijbels, Raemdonck, & Vervecken, 2010).

Previous studies have shown that self-regulated learning skills can be acquired in school and teachers can facilitate this process by teaching strategies on how to be a self-regulated learner (Pintrich, 1999). Teachers can enhance students' motivation and self-efficacy (Zimmerman, 2002). In particular, they can enable students to learn how to plan, monitor and evaluate their own learning by first guiding and then actively assist this process (Jossberger, Brand-Gruwel, Boshuizen, & van de Wiel, 2010). Additionally, teachers can support students on establishing achievable goals and choosing appropriate learning strategies. In line with these findings, Wolters, Yu, & Pintrich (1996) indicated that goal orientation of students has a positive effect in their self-regulation skills and their self-

efficacy. Self-efficacy refers to students' belief that they are competent and able to learn and achieve their goals and is considered as a significant predictor or self-regulated learning (Pintrich, 1999). Moreover, Bouffard-Bouchard, Parent & Larivee (1991) supported that self-efficacy is related to self-regulation skills, such as to what extent students stay focused on and organise their tasks by themselves. Another factor which leads in higher self-regulatory learning processes of students is the identification of the learning task as important and appealing by the learner (Pintrich, 1999). Moreover, by setting reasonable goals for the students which trigger their interest, young learners become more motivated and confident (Schunk, 1990). According to Garrison (1997), teachers should offer opportunities to the students to collaborate and regulate their own learning. Thus, it can be concluded that there are school factors which are predictors of self-regulatory skills.

However, more research is needed in order to examine out-of-school experiences which can contribute to or impede the development of self-regulated learners during their childhood. Berliner (2009) stated that there are several out-of-school factors which are significantly related to young students' performance and attitudes. Such factors which can affect children's ability to self-regulate their learning can be detected in the family environment and particularly in their parents' behaviour and are described below.

Parenting influence

Parenting is a fundamental factor regarding the development of children and especially the way children acquire new knowledge and attitudes while they grow up. Parents create children's learning environment and they provide them with their first learning stimulus (Bornstein, 2001). Spera (2005) explored parenting by distinguishing parental styles and parental practices. This study gives some examples of parental styles and parental practices such as parental monitoring, parental involvement as well as love-oriented and object oriented (Spera, 2005). Parental style can be considered as a context where parental

practices appear (Darling & Steinberg, 1993). Parental style can also be defined as "a constellation of attitudes towards the child that, taken together, create an emotional climate in which the parent's behaviours are expressed" (Darling & Steinberg, 1993, p. 488). However, not all parenting styles have been related to learning and self-regulation. The parenting elements which are discussed in this section because they are related to children's learning are: parental attitudes, autonomy, parental involvement and authoritative parenting.

Parental attitudes towards learning. This study investigates, among several parental styles, also parents' attitudes towards learning and whether they can affect children's ability to self-regulate their learning. An attitude represents the constellation of internalized perceptions and assessments that someone has about an object, a person, a group or an idea (Bohner & Dickel, 2011). There are no previous studies which suggest the relationship of self-regulated learning with parental attitudes towards learning. However, since it is considered as an important factor for the learning behaviour of the young student, it is considered worthwhile to be explored. According to previous research, parents' beliefs about literacy can encourage or discourage children's ability to learn how to write and read as well as their literacy development (Lynch, Anderson, Anderson, & Shapiro, 2006). Furthermore, Steinbach & Stoeger (2015) found that parents' attitudes specifically towards self-regulated learning influence the autonomy they provide to their children on the way they learn.

Autonomy. Existing literature shows the relationship of some parenting styles with children's characteristics and behaviours. First of all, parents who support autonomy enhance their children's academic performance (Cooper, Lindsay, & Nye, 2000). Additionally, the study of Grolnick & Ryan (1989) found that parents who provide autonomy to their children enable them to achieve higher self-regulation skills. Littlewood (1996) defined a person who is autonomous as "one who has an independent capacity to make and carry out the choices which govern his or her actions" (p.429). Grolnick (2009) defined autonomy support as

"taking children's perspectives and viewpoints, allowing children choices, and supporting their initiatives and problem solving attempts" (p. 166). Previous research has shown that children who grow up in an autonomous environment are more likely to be ready to succeed in an educational system which promotes independency and adjustment (Grolnick & Ryan, 1989). A possible explanation given for this finding is that children who do not grow up in an autonomous environment are used to work under other people's control.

Parental involvement. Parental involvement refers to the extent that parents are involved in the progress and the experiences of their children in school as well as at home (Sui-Chu & Willms, 1996). Previous research has shown that children who grew up with parents who were involved, since their early childhood, were more able to solve problems on their own and were more likely to develop self-regulatory skills (W. S. Grolnick, 2009). In line with this, Grolnick & Ryan (1989) found that there is a positive relationship between parental involvement and children's control on their school outcomes. Children who perceive more parental involvement are more likely to become self-regulated because in this case parents offer opportunities to their children to develop self-determination and adopt their own attitudes towards learning (Wong, 2008). Moreover, children who are raised in an environment where routines and structured schedules are promoted by their parents are more able to self-regulate their academic tasks and also their lives in general (Effeney, Carroll, & Bahr, 2013a). Particularly, children of parents who are involved in their school life and use to form routines are more likely to adjust to increasing study load and self-regulate their homework.

Authoritative vs. Authoritarian. Glasgow et al. (1997) found that authoritative parenting is the most effective parental style in order to foster individuals' sense of responsibility while they remain autonomous. Although it is strongly related to autonomy the main characteristic of the authoritative parenting is that parents support their expectations

towards their children with rational arguments and encourage them to set achievable goals and manage to reach these goals on their own (Heaven & Ciarrochi, 2008). As a result, children who grow up in such environments tend to develop more skills and be more independent. On the other hand, authoritarian style can cause children's low self-esteem when parents have non-realistic expectations from their children and they punish them if they do not meet them (Heaven & Ciarrochi, 2008). The negative influence of authoritarian parental style on children's self-esteem was also confirmed by the study of Milevsky, Schlechter & Netter (2007). Self-esteem is considered as a predictor of self-regulation skills (Lambird, 2006). Therefore, in case children are not able to accomplish the expected performance and their behaviour is considered unacceptable, they are less likely to be optimistic and focus on their achievements. Additionally, young teenagers who grow up in authoritative home environments develop higher self-confidence and more positive selfconceptions than those who grow up in authoritarian environments (Steinberg & Darling, 1994). The study of Winsler (2017) showed that maternal authoritative behaviour can enhance children's academic achievements and have positive influence in their development. Moreover, mothers are more likely to affect children's feelings and discuss with them about their expectations using arguments and logical reasoning (Conrade & Ho, 1991). Regarding the paternal parenting, children who are not given enough freedom from their fathers tend to score lower self-criticism (Cheng & Furnham, 2004). Maternal care is perceived as a parental style that influences positively children's behaviour. Specifically, children who are treated by their mothers with warmth tend to have higher self-esteem (Cheng & Furnham, 2004). Finally, according to Day & Padilla-Walker (2014) both mothers' and fathers' parental styles and involvement are significant. However, research suggests that the results of their influence differ, with paternal parenting having as an outcome internalizing behaviours and maternal parenting being related to hope.

Socioeconomic characteristics. The research of Walker et al. (2011) highlights the existence of biological and psychological risk factors which can influence negatively the cognitive ability and the general development of young children. Low income and low maternal education are considered to be two important risk factors during early childhood (Halle, Forry, Hair, Perper, & Wandner, 2009). According to (Davis-kean & Davis-kean, 2016) parental education is a socioeconomic characteristic which may also influence children's development and academic progress. Moreover, marital status can also influence children's development. In particular, children of divorced parents are less likely to develop high self-esteem than children of non-divorced parents (Cenhal, Special, & Coop, 1992). In line with this research, Amato (2014) found that marital conflict is negatively associated with children's self-esteem. However, it is possible that children of divorced parents may also develop self-regulation skills as an emotional response in order to prevent or overcome stressful situations (Lengua, Sandler, & West, 1999).

Concluding, four important out-of-school factors that may influence positively SRL were found in the literature: autonomy support, parental involvement, authoritative parenting and parental attitudes towards learning. There are very few studies done which have supported that an out-of-school factor such as parental style is strongly related with self-regulated learning such as Grolnick & Ryan (1989) and Grolnick (2009). A better understanding of how parents' behaviour during the childhood and the adolescence of their kids can affect their ability to self-regulate their learning is needed. However, it can be concluded that different aspects of parenting such as autonomy, parental involvement, authoritative parenting and parental attitudes, alone or in combination with each other, can cause different children's characteristics and skills which can be associated with their ability to become self-regulated learners in the future.

Research Questions

In order to identify factors which can lead someone to becoming a highly self-regulated learner the following questions should be investigated. Taking into consideration the influence of parents' behaviour during the childhood and the adolescence on an individual's characteristics, a question is raised regarding whether there are certain patterns of parental styles which affect someone's ability to self-regulate their learning. The word pattern can be defined as an abstraction which recurs over and over again in the same or similar way and indicates how something is done under certain conditions (Alexander, 1979).

- 1. Which patterns of parenting are recurring within the life histories of highly self-regulated professionals?
 - In addition, the following sub-questions are formulated:
- 2. What are the common experiences mentioned by the participants regarding autonomy support?
- 3. What are the common experiences mentioned by the participants regarding parental involvement?
- 4. What are the common experiences mentioned by the participants regarding authoritative and authoritarian parental behaviour?
- 5. What are the common experiences mentioned by the participants regarding parents' attitudes towards learning?

Research Design and Methods

Research Design

This study is a part of a larger project and the data were collected by another researcher. The study can be classified as a qualitative study and particularly as a biographical study. In a biographical study the researcher collects and presents parts of life histories of the respondents. Moreover, a biographical study is considered as a type of

narrative study (Leech & Onwuegbuzie, 2007). Creswell (2007) defined narrative studies as a method used for investigating and understanding "experiences as expressed in lived and told stories of individuals". Semi-structured life history studies are considered as a strong method used in order to reveal information of an individual's biography (Dicicco-bloom & Crabtree, 2006). This method is appropriate because the goal of this study is to identify factors in the life histories of people which might have led them to becoming highly self-regulated learners.

Respondents

The initial number of participants of this study was 160 knowledge workers from several private and public organisations. The final sample selected consists of 39 respondents. The selection of the respondents was based on their score on the SRL@WORK questionnaire (Fontana, Milligan, Littlejohn, & Margaryan, 2015) in order to make sure that in spite of the different tasks of their jobs the respondents were homogeneous as well as high scoring regarding self-regulated learning. Due to the fact that the interviews were in-depth biographical interviews, it was preferred to conduct them face-to-face instead of by distance. For that reason, priority was given to the individuals who are located close to the researchers' work locations which were the Netherlands and Scotland.

Procedure

The sampling took place in three phases. First, the respondents were contacted informally and asked to participate in this study. Specifically, individuals were approached by email and asked to answer the SRL@WORK questionnaire online. Subsequently, an invitation letter describing the research was sent to them together with a link to the online SRL@WORK questionnaire. SRL@WORK questionnaire included questions about personal details and work tasks of the respondents and measured the extent of their ability to self-regulate their learning. Second, those individuals who scored higher than the others in the questionnaire and therefore were considered as highly self-regulated learners were invited to

participate in an in-depth biographical interview. Thus, a second invitation letter was sent to the highly self-regulated learners outlining the retrospective interviews in more detail and making arrangements for the interview. The semi-structured retrospective interviews were conducted, taped and transcribed. A copy of the transcript was sent to the respondents to get their approval and, if necessary, to ask for clarifications or additional information. A letter was sent to the respondents thanking them for their time and highlighting their contribution. In the letter the respondents were asked to introduce other potential participants to be added to the sample. Finally, participants were given a copy of their results, their interview transcript and the audio-recording.

Instrumentation

The data collection method of this study was qualitative, using a retrospective semi-structured biographical interview. Semi-structured in-depth interviews were used because they are appropriate for investigating the individual perspectives and the past experiences of each respondent (Kelchtermans & Ballet, 2002). The interviews consisted of open ended, behavioural questions and questions aiming to verify respondents' experiences (e.g. "How about, just thinking about what you just mentioned, how about parenting style of your parents, so how they were with the children? What sort of activities they would do, the interaction, were they encouraging to do certain things?"). In addition, they were conducted in a physical meeting of the researcher and each respondent since the in-depth, personal-biographical nature of the interviews requires that they are carried out face-to-face rather than by telephone or Skype. In these interviews the participants were asked questions about their childhood, their school experiences, their environment and their current workplace.

Moreover, available biographical materials of the respondents' summary profiles such as demographic details, personal website, CV or blog were reviewed and summarized prior to the interview.

Data Analysis

The interviews were recorded and transcribed and the transcription was coded based on the theory by the use of Atlas.ti software. The final dataset consists of 39 interviews coded equally by the three investigators. The interviews were distributed among three coders in order to make sure that each interview is coded by more than one individual.

The coding scheme was revised several times and its final version is provided in the appendix. Apart from the initial labels, which are autonomy support and freedom, parental involvement, parental non-involvement, authoritative, authoritarian, positive attitudes towards learning and negative attitudes towards learning it was decided to examine also some demographic characteristics such as parents' education and family structure. Moreover, based on the discussions among the coders it was decided to create some sub-codes in order to be able to capture possible differences between the maternal and the paternal parenting, since in some cases they were not aligned.

The validity was ensured by building the coding scheme based on literature which captures multiple perspectives of the related theory and all the different categories and labels were discussed. The appropriateness of the codes and the literature were discussed within a group of four investigators. In order to ensure reliability, a Cohen's kappa was used. Cohen's kappa is a statistic used in order to measure the reliability based on agreements among the raters (Guggenmoos-Holzmann, 1996). Pope, Ziebland, & Mays (2000) found that the reliability can be increased when more than one individual analyse the data. Moreover, according to McHugh (2012), it is highly important to ensure that the results of several people who collect the data are in agreement and the level of this agreement is known as "inter-rater reliability". In this study, three investigators coded in pairs five random interviews of the data set and calculated the Cohen's kappa of the segmentation and the codes in a manual Excel spreadsheet in order to make sure that the instrument is reliable. Therefore,

20% of the interviews were tested in order to ensure inter-coder reliability. The average Cohen's kappa for this reliability check was calculated as 0.75 which indicates that the coding in this phase is sufficiently reliable.

The coding process took place in three phases. In the first phase the three investigators coded the interviews by first doing the segmentation, then using the labels of the coding scheme and afterwards testing them for reliability as mentioned in the Instrumentation paragraph. For instance, the following quotation was coded as parental involvement:

"We weren't a family who had hours of in depth discussion, but I also felt that my parents were there if we wanted to talk about things. They always took an interest in our lives and what we were doing, you know they came to sports day, they came to plays, they participated and encouraged us to do outdoor activities and sporting things"

In the second coding phase more specific data-driven, open sub-labels for some codes were created in order to facilitate the data analysis process which were also tested for reliability and revised when it was needed. For instance, the sub-labels books, led by example, highlight the importance and homework assistance were created for the main label positive attitudes towards learning. In this step, the above quotation, coded as parental involvement, was given the sub-labels activities and interests since the parents were encouraging for family activities and supporting towards their children's interests.

The reliability of the sub-labels was also tested by two independent coders on the calculated required number of quotations per label using the following equation:

$$2 \times (n \times n)$$

(1)

The average Cohen's kappa for this test was equal to 0.76. In the final person level part of the analysis the coded files were summarized per case. Afterwards, the frequency of the codes in the dataset was counted and the findings were summarized for each research

question. Due to data loss, one interview was not used for analysis and therefore is not taken into account. The results of the analysis are presented in the next section.

Results

This study investigated patterns of parental styles which are recurring within the life histories of highly self-regulated professionals. Particularly, common experiences of the respondents regarding autonomy support and freedom provided by the parents, parental involvement, authoritative and authoritarian parental style and parents' attitudes towards learning were explored through semi-structured biographical interviews. The results are presented and described in this section, supported by tables which show a quantitative overview of the number of responses for each pattern. Table 1 provides an overview of the number of the respondents who mentioned only one, two, three or all of the four investigated parental styles. Based on the analysis, the most recurring types of parenting were the combination of autonomy support and parental involvement, the combination of parental involvement and positive attitudes towards learning and the combination of all four expected parenting styles which was mentioned by six respondents.

Table 1
Summary of responses

Parental style	Number of respondents
Autonomy	2
Parental Involvement	2
Authoritative	1
Positive attitudes towards learning	0
Autonomy & Parental Involvement	7
Autonomy & Authoritative	1
Autonomy & Positive attitudes towards learning	3
Parental Involvement & Authoritative	2
Parental Involvement & Positive attitudes towards learning	5
Authoritative & Positive attitudes towards learning	1
Autonomy & Parental Involvement & Authoritative	0
Autonomy & Parental Involvement & Positive attitudes towards	3
learning	

Parental Involvement & Authoritative & Positive attitudes	3
towards learning	
Autonomy & Authoritative & Positive attitudes towards learning	2
Autonomy & Authoritative & Parental Involvement	0
All 4	6
Total	38

Autonomy Support and Freedom

Table 2

Number of respondents for autonomy support and freedom

Autonomy support	No autonomy support	Not mentioned	Total	
24	4	10	38	

Table 3

Number of respondents for the sub-labels of autonomy support and freedom

Autonomy support and freedom	Trust	No strict rules	Freedom of choice	Independence	
Number of respondents	4	4	15	10	

As seen in Table 2, half of the respondents (N = 24) mentioned that their parents supported autonomy and provided freedom to them. During their youth, they were given the opportunity to make decisions, their opinions were taken into consideration and they did not perceive pressure from their parents to follow a specific guidelines. Freedom of choice was found to be the most recurring behaviour concerning this category. Moreover, most of the respondents were encouraged to be independent (Table 3). For instance, one of the respondents mentioned:

"They didn't put pressure on us, so if you look at school or something it was more helping and trying to see what we needed to make that we can do what we needed to do. So it was supportive, I think that's the way, very supportive in all that we did. That's one, on the other hand, I think they left us quite free in what we did. So in choosing what we wanted to do we were free, but on the other hand if we choose something we needed to do it well."

Four of the respondents related autonomy with the trust showed by their parents and other four had no strict rules in their family environment. For example, one of them said:

"My Mum is a very trusting parent and created a lot of space for us and incredibly supportive."

Only four respondents indicated examples which show that their parents did not provide autonomy to them and the rest 10 did not mention autonomy at all (Table 3). No noticeable difference was found between autonomy support given by mothers and autonomy support provided by fathers. In summary, autonomy support and particularly freedom of choice and independence were found to have an impact on participants since they allowed them to plan their own tasks and responsibilities and determine their own needs. Therefore they can be considered as possible factors leading to highly self-regulation skills.

Authoritative and Authoritarian Parenting

Table 4

Number for responses for authoritative and authoritarian parenting

Authoritative	Authoritarian	Both	Not	Total
			mentioned	
11	10	5	12	38

Table 5

Number of respondents for the sub-labels of authoritative parenting

Authoritative parents	Goals setting	Reasoning	
Responses	6	13	

Table 6

Number of respondents for the sub-labels authoritarian parenting

Authoritarian parents	Rules	Decision making	
Responses	7	11	

Within this category, 11 participants' parents may be classified as authoritative whereas 10 as authoritarian based on the experiences they shared in the interviews (Table 4). Additionally, five respondents mentioned both authoritative and authoritarian parenting and 12 did not mention this category. Regarding authoritative parental style, most of the answers were describing parents who express their expectations through reasoning and rational arguments and less answers were referring to parents who were encouraging their children to set achievable goals (Table 5). One participant mentioned the following about authoritative parental style:

"...my Mum she reasoned with me about it, she would always sit down and reason with me and tell me and what I like about her approach and probably also I did get her at some point, she would always go and show me 'This is the future, do you want to do what I'm doing? Or do you want to be able to choose?"

On the other hand, there were two categories of the participants who had authoritarian parents which were almost equally distributed. Table 6 shows that these participants can be distinguished to those who grew up in an environment with strict family rules which they had to follow and those who had parents who directed and controlled their decisions against their will.

"From a parenting style they were an Irish Catholic family, highly religious and in some ways very dominating type of parenting style. You did what you were told to do basically or you were punished for that, but at the same time my Mother would spend all summer long she would make sure that we would go to the library once a week to get books to read."

In conclusion, based on the results of this study the distinction of the authoritative and authoritarian parenting was not clearly identified. However, the responses of the participants showed that even though in many cases the parents were controlling and did not give them enough space for decision making they were still highly involved and positive towards learning

and education. In addition, no relevant patterns regarding maternal and paternal parental style were identified in this category.

Parental Involvement and Parental non-Involvement

Table 7

Number of respondents for parental involvement

Parental involvement	Parental non-involvement	Not mentioned	Total
28	10	0	38

Table 8

Number of respondents for the sub-labels of parental involvement

Parental involvement	Family activities	Support of interest	Homework assistance	
Responses	22	13	7	

Table 9

Number of respondents for maternal and paternal involvement

	Mother	Father	Not	Total
			mentioned	
Parental involvement	7	1	30	38
Parental non-	0	5	33	38
involvement				

As regards parental involvement, 28 out of the 38 (74.7%) participants said that their parents were involved in their childhood and adolescent life in and out of school as expected (Table 7). The majority of these participants grew up in such environments where family activities and structured routines were considered important (Table 8). In that way, they provided them a lot of input and stimulus in order to self-reflect and follow their own preferences.

"Well my parents, I think they tried to show us the area and have us travel a lot. [...]
So I remember my Mum and Dad would take us to the park and do picnics. All things that were affordable as well. So sometimes go, well to different playgrounds to play with the zip lines,

with see-saws, the usual in play grounds. They would try and take us to the swimming pool, the local swimming pool. They would try and take us when they could afford it, to take us to see pieces of history of the area."

Apart from family activities, 13 participants said that their parents were involved particularly in actively supporting their interests.

"So when I mostly had interests and I'd do a little reading and there was lots of opportunity to do that and there was a lot of encouragement. So we went to the library very often and I would pick my books, but it was not so much that my parents gave me, they also gave me things like that, they gave me some binoculars when I was 10 for instance to encourage me in my bird watching and those kinds of things."

Finally, less participants (N = 7) also mentioned homework assistance by their parents as a type of parental involvement.

"Something I often think about with parents is if I had a maths problem and I wanted the answer for my homework I would go to my Father because he would give me the answer, but he would also give me a lecture that was way above my head on the topic. [...] If I really wanted to understand something though and that did happen sometimes, I would go to my Mother and she wouldn't give me the answer, but she would help me find it myself, she would really teach me."

On the other hand, the rest 10 out of the 39 (26.3%) participants reported that their parents were not involved in their childhood or adolescent life. Although these participants were the minority, the fact that they had to be self-reliant, due to the non-involvement of the parents, might give some insight in why they became highly self-regulated learners.

"Yes but nobody's helping me with school because before if I had some question with maths my mum always told me you can ask your father, he is good at that and very early I understood that he's not that good and he is not able to help me with everything or he's just

absent or he's just drinking and she was also, [...] and so I realised ok nobody's helping me with school or with anything. So I have to do stuff on my own."

Table 9 shows that regarding the parental involvement variable, there was a difference between maternal and paternal involvement. In specific, no one of the respondents indicated non – involvement by their mother but five of them said that their father was not involved. Moreover, seven of them mentioned parental involvement only in respect to their mother. In conclusion, parental involvement was found to be the most recurring pattern in the lives of the highly self-regulated learners who were interviewed.

Attitudes towards Learning

Table 10

Number of respondents for attitudes towards learning

Positive attitudes towards	Negative attitudes towards	Not mentioned	Total
learning	learning		
24	0	14	38

Table 11

Number of respondents for the sub-labels of positive attitudes towards learning

Positive attitudes towards learning	Led by example	Reading books	Financial support	Highlighting importance
Responses	6	10	3	14

Half of the respondents (N = 24) stated that the attitudes of their parents towards learning were positive (Table 10). No one mentioned any negative attitudes towards learning by their parents and 14 did not refer at their parents' attitudes towards learning at all. In particular, as seen in Table 11, the majority of them based this statement on the fact that their parents were highlighting the importance of education in multiple ways and encouraged them to learn.

"The value was always learning and studying a lot, they would always point it out, even though they didn't have the backgrounds"

Additionally, 10 of them were raised by parents who enjoyed reading, were regularly visiting the library with them and gave them the opportunity to always have books available to read.

"My parents read a lot of books, not something like high level classicals or literature, but they read a lot of books and my parents appreciated books and reading and that was the same in all families. [...] and that means that also in my family we had a lot of books and my parents read books to us and they bought books for us..."

Due to these parental attitudes the participants were supported, since their childhood years, to value positively learning and invest time in their education. The rest of the respondents who discussed about their parents' attitudes towards learning said that they were inspired by their parents' stories which worked as an example for them in order to appreciate learning as well as that they were always financially supporting their education. Summarized, the results showed that positive attitudes towards learning of the parents were one of the main common experiences in the life of the interviewees.

Finally, some demographic characteristics were investigated regarding parents' educational background and family structure. In specific, there were eight respondents who grew up with divorced parents and some who were partly raised by other members of the family apart from the parents. However, the majority grew up in a typical structured family. Additionally, the education of the parents was almost equally distributed among high, average and low level. Therefore, based on the results, there were no impactful patterns identified regarding these characteristics.

Conclusion and Discussion

The purpose of the present study was to identify factors which can lead someone to becoming a highly self-regulated learner. Thus, the aim was to articulate similarities and common experiences of highly self-regulated professionals and explore common experiences related to parental styles recurring within their life histories. The above were investigated through semi-structured biographical interviews and the results are discussed in this section. The results of the data analysis showed that there are some types of parenting which can be considered as impactful patterns regarding the development of self-regulated learners. These types of parents raise their children combining either autonomy support and parental involvement, parental involvement and positive attitudes towards learning or all four expected parenting styles: autonomy support, parental involvement, authoritative parenting and positive attitudes towards learning.

In order to identify these patterns some research questions were formulated. The first sub-question was: "What are the common experiences mentioned by the participants regarding autonomy support?" According to the results, as it was expected, most of the participants experienced autonomy within their family environment. The most common types of autonomy support were freedom of choice and independence. Grolnick (2009) found that children who perceive autonomy in their problem solving attempts are more likely to be ready to solve their academic tasks on their own, set their own performance goals and therefore acquire strong self-regulation skills. Moreover, Wong (2008) associated parental autonomy support with the development of independent learners who have the freedom to interpret the importance of learning in their own way. In line with these findings, this study showed that children who were more independent during their childhood were more capable in self-regulating their learning in the future. Therefore, autonomy support and freedom

provided by the parents can be considered as impactful factors for the development of highly self-regulated learners.

The second sub-question was: "What are the common experiences mentioned by the participants regarding parental involvement?" The results of this study revealed that parental involvement is the most dominant pattern in the lives of highly self-regulated knowledge workers since it was the most recurring type of parenting. Moreover, parental involvement or non-involvement was the only parenting style which was mentioned by all the participants whereas there were some missing answers regarding the other types of parenting. A possible explanation of this strong relationship of parental involvement with self-regulated learning is that the majority of the parents need to be involved in the life of their children since their very early years whereas other parental behaviours and attitudes occur in their later childhood (Purdie, Carroll, & Roche, 2004). As a result, it is easier to identify this relationship than the relationship of any children's skill with other parental styles. In particular, the majority of the respondents claimed that their parents used to organize regular family activities, created for them an environment with structured routines and they were highly involved and supportive regarding their interests. Previous research has shown that the development of personal, selfdriven interests are predictors of high self-determination (Soenens & Vansteenkiste, 2005). Additionally, this finding can be explained by the research of Effeney, Carroll, & Bahr (2013) which found that well-established studying routines formulated early at home by the parents allow children to adopt a self-regulated strategy of learning that they can direct and plan independently.

Furthermore, parental involvement was associated with the parental gender. Grolnick & Ryan (1989), suggest that maternal involvement is more likely to play a more important role than paternal involvement in respect of the self-regulatory skills of children. Moreover, according to Cheng & Furnham (2004), self-esteem, which is an important characteristic of

self-regulated learners, is related strongly with maternal care. Although this study cannot draw conclusions regarding the contribution of each parental gender to self-regulated learning it can state that one of the two parents was more present in children's life and in this case, due to the chronological period, the most involved parent was mother and in most of the families the father was the one who had heavier workload or other tasks which kept him away from home.

The next sub-question was: "What are the common experiences mentioned by the participants regarding authoritative and authoritarian parental behaviour?" Some of the respondents mentioned that their parents expressed their expectations towards them through rational arguments as well as encouraged them to set achievable goals for themselves. On the other hand, some participants mentioned that their parents used to control and direct their decisions, mostly regarding their education, and set strict family rules for their children. However, even though these parents were using authority in such way that they did not allow their children to feel free to make their own decisions and planning, they were still involved and actively encouraged them to learn continuously. Based on the results, almost half of the participants, who described parental behaviours related to expectations, received parenting which was more on the authoritarian side of the spectrum and the other half more on the authoritative. This outcome could be different if more dimensions of parental authoritativeness than the one related to expectations had been investigated (Gray & Steinberg, 1999). The findings of this study cannot support the expected outcome that authoritative parental style is an impactful pattern which should be explored when investigating factors which lead someone to becoming a self-regulated learner.

The last sub-question of this research was: "What are the common experiences mentioned by the participants regarding parents' attitudes towards learning?" Parental attitudes towards learning were included in the study as a possible pattern after starting the

first coding phase since they seemed to be of a high importance in the lives of the participants. Based on the results of this study, parental attitudes towards learning can be considered as a factor which can drive someone to becoming a highly self-regulated learner. The most recurring common experience mentioned, in particular by more than half of the respondents in this category, regarding attitudes towards learning, were parents who were actively highlighting the importance of education as well as facilitating the early literacy development of their children. This finding is in line with the research of Perry & VandeKamp (2000) which showed that children who are given opportunities to develop their literacy skills and select their own reading strategies are more likely to become capable of directing their own way of reading and their own literacy preferences. Thus, children who are exposed to books in a young age and challenged to set their own reading performance goals have more chances of adopting a self-regulated reading tactic and therefore developing higher self-regulated learning skills (Paris & Paris, 2001). Although there is no existing literature that relates children's self-regulation skills with parental attitudes towards learning, this study can support that parents who encourage their children to continuously learn and introduce them early to books and reading can affect their ability to self-regulate their learning in the future.

In conclusion, the present study showed that there are some patterns of parenting which are co-recurring within the life histories of highly self-regulated professionals. These aspects of parenting are autonomy support and freedom, parental involvement as well as positive attitudes towards learning. The study can support, based on its findings, that there is a type of family environment which should be further explored in respect of children's self-regulated learning skills. This environment consists of parents who provide independency and freedom of choice, are highly involved and supportive in their children's academic and non-

academic interests, formulate early routines and promote the importance of education and the literacy development.

Limitations

This study contributed to the existing literature. However, there are some limitations which should be taken into consideration regarding the interpretation of the findings. First, this study examined the life histories of professionals in order to identify common experiences which contributed to their high levels of self-regulation. However, there was no control group in order to compare the results. In specific, in order to validate better that the independent patterns found in the study were the main influential factors or even real causes for the high self-regulatory skills, a control group should be used (Campbell & Stanley, 1967). Additionally, all the selected participants were knowledge workers in academia, business and government. Thus, in order to be able to further generalize the results a future study should involve respondents from different sectors and educational backgrounds. Finally, a limitation which should be taken into account is that not all the participants mentioned all the parenting styles which were explored, since they might not have explicit memory of their childhood and the questions about each parenting were not asked directly. As a result, it was hard to draw conclusions even though it was possible to identify patterns.

Implications for Future Research

The goal of this study was, based on the identified patterns, to formulate research hypotheses as well as provide the base for future studies to explore correlational similarities. Thus, more insight will be add in the present findings by answering casual relationships of certain types of parenting and the ability of someone to self-regulate his/her learning.

First, it is suggested that further studies could be conducted using different research methods, appropriate for identifying the above casual relationships. A possible method to be used is a longitudinal study where the present study could be considered as the first

chronological steps of the research. Such a study could examine the association between these parental styles in the early childhood and adolescence with the development of self-regulated adult learners and move beyond participants' perceptions.

This study provided evidence on the impact of parental involvement on the self-regulation skills related to learning. It can be hypothesised that parents who are involved in their children's lives and support their personal interests can influence the extent to which the children are able to self-regulate their learning in the future. Moreover, a future research hypothesis might be that children who grow up in an environment with structured routines and regular family activities will become more self-regulated and develop their own learning strategies.

Second, following studies can hypothesise that there is a correlation between parental attitudes towards learning and children's self-regulatory learning skills. In particular, the perceptions that parents have about the importance of education, the extent to which they promote learning and early literacy development in relation to the ability of their children to plan and monitor their own learning and adopt their own learning strategies might be explored.

Additionally, following studies might investigate the relationship of autonomy support as a parental style with the development of highly self-regulated learners. Based on the present study, it is hypothesised that who children who perceive autonomy and freedom by their parents and grow up in an environment where they can be independent are more likely to become self-regulated learners, as discussed in the previous sections.

Finally, as regards the authoritative parenting, it was not found to form a pattern in the present study and based on its results it does not need further investigation. However, in case it is included in a future study, more of its dimensions than parental expectations, such as

strictness should be explored and a clear connection with autonomy and involvement should be made.

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Appendix

Coding Scheme

Categories	Theory driven	Dataset based	Definitions	Example
	labels	sub-labels		
Upbringing	Autonomy support	Trust	Children's	"I was never
approaches	and freedom		perspectives are	disallowed
			taken into	anything
			account and they	because she
			perceive trust by	would think
			their parents.	it's scary."
		Rules	Parents do not	"it was very
			use strict rules in	much about
			order to exert	independence,

		control on the	there wasn't a
	F 1 C	children.	lot of
	Freedom of	Children are	guidance and
	choice	given the	I cannot every
		freedom to make	really recall
		and carry out	sitting and
		choices which	doing
		govern their	homework
		actions on their	with me, for
		own.	example. Like
	Independence	Children are	I don't ever
		space the	remember her
		freedom to take	reading
		initiatives and	[4:28]
		solve their own	with me or
		problems.	doing
			homework"
Parental	Activities and	Parents	"He would
involvement	routines	formulate	help with the
		structured	homework as
		routines and are	far as he
		involved in	would manage
		regular family	and would be
		activities.	able to
	Interests	Parents support	because I
		and encourage	studied at a
		children's	special
		interests.	physics and
	Homework	Parents are	mathematics
		involved in the	school" "So
		progress and the	they were, you
		experiences of	know it was
		their children	kind of about
		regarding school	being creative
		such as assist	and going to
		them with their	the library, we
		homework.	used to have a
		· · · · · · · · · · · · · · · · · ·	routine of
			going to the
			library once a
			week and I
			didn't want to
			get a book,
			you know I'd
			get books with
			pictures in
			them, so I
			remember that
			as a weekly
<u> </u>	<u>l</u>	<u> </u>	as a receip

				thing going to the library."
	Parental non - involvement	-	Parents do not participate and are not interested in the school but also in the out-of-school life and activities of their children.	"So there was not a lot of relationship between my parents and me and the relationship was more between the kids amongst each other. *** mother was also a manic depressive, so my father had a lot to deal with, with that."
Parental expectations	Authoritative	Goal setting	Parents encourage their children to set achievable goals and foster their sense of responsibility while they remain autonomous.	"So my parents had actually visited a few of these schools before I did or even along with me and they had sort of made
		Reasoning	Parents support their expectations towards their children with rational arguments.	up their mind which school they wanted for me and I wanted another school because that's where my friends were going. So I think that's a moment where although I didn't agree with them they tried to explain to me why they

			control their children and direct children's	allowed to have a boyfriend and
			personal wills and decisions.	only later that got a bit
				loosened up, but it's also
				other little things."
Attitudes towards	Positive attitudes towards learning	Led by example	Parents' beliefs and opinions let	"So there was this idea of
learning	towards rearring	example	their children	importance of
			have a positive orientation	learning I think and from
			towards learning.	my Mum also, very late in
		Books	Parents actively encourage their	life, went back to university."
			children to read	"But they, for
			books and foster their literacy	whatever reasons, saw
		Financial	development. Parents are	the importance of
		support	willing to cover	education and chose to put
			financially any educational need	themselves
		Highlight the	of their children. Parents	through it after school."
		importance	proactively support the value	"So both my parents have
			of education and learning.	always encouraged
			icarming.	me to, you
				know you have an
				opportunity to learn, we can
				afford for you to go to school
				and if you
				have the ability to
				learn you need to use
				it." "The
				value was always
				learning and studying a lot,
				they would

			always point it out, even though they didn't have the backgrounds.
Negative attitudes towards learning	-	Parents evaluate learning as not that important and do not highlight the good qualities of	-
		it.	