

Developing older adults' learner autonomy through one-to-one counselling: Results of an exploratory investigation

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ABSTRACT

Developing autonomous learning to maintain independent learning practice in an effective way is a crucial ability in adult education (Confessore & Park, 2004). Therefore, this study investigates the potential of one-to-one learning counselling to promote older learners' learner autonomy (aged 50 and older). Twenty-five older learners participated in the exploratory study. Reflective learning diaries and qualitatively oriented questionnaires were used as research tools to track participants' autonomous learning behaviour. We applied grounded theory and network analysis to see the complex interrelations of underlying constructs. Results show that comprehension and speaking development are significant incentives for older adults' language learning. Further, self-awareness in learning and metacognitive knowledge were identified as important constructs for self-study practice. Cognitive stimulation, sustained learner motivation and certain self-relating constructs continuously affected older adults' learning behaviour. Application of cognitive- and memory-enhancing learning strategies, as well as technology-supported learning materials, played an important role in independent learning practice. General perceived self-efficacy and self-management were areas developed beyond language learning.

1. Introduction

Ageing societies are characterized by an increasing older population (DESA, 2017). Unsurprisingly, educational gerontology is becoming an important domain of adult learning in contexts where later life engagement through education is considered a powerful tool for meaningful inclusion (Fernández-Ballesteros et al., 2012; Findsen & Formosa, 2012; Ostiguy et al., 1998; Todd et al., 2017). These dynamics have also generated interest in studying key competences needed for lifelong learning. The ability of independent learning and multilingual competence were found to be particularly significant (European Commission, 2018); and facilitating further development of learning in adulthood was identified as a generic competence of adult learning professionals (Bernhardsson & Latke, 2011). Although research on adult learners' learner autonomy enhancement is extensive (e.g. Feldmeier & Markov, 2017; Metzsig & Schuster, 2003; Pätzold, 2004; Siebert, 2000), empirical studies on independent learning development of older adults (aged 50 and older) are hardly available (Schiller & Dorner, 2019; Schiller et al., 2020). This paper thus aims to bridge this gap by investigating how learner autonomy can be promoted through one-to-one learning counselling for older learners who study English as a foreign language (FL) learning experience over time in Hungary. Although the study itself may be specific, findings should be relevant in the broader context of old-age learning experience over timed learner autonomy development and adult learning.

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2. Literature review

2.1. Learner autonomy, motivation, and self-regulated learning in language learning and beyond

Learning constitutes a complex phenomenon, which refers to an unpremeditated behaviour to assist individual demands (Wang & Zhang, 2022). Learning is also considered to be an active behaviour performed by each learner differently by means of combining new knowledge with already existing knowledge affected by one's perception and prior experiences. This implies individual learning processes, which can be understood as a dynamic construction (Yager, 2000).

Learner autonomy is a fundamental notion underlying constructivist approaches to learning (Wolf, 1996) and has been on the research agenda for decades. Its importance is also evidenced by studies that focus on autonomous learning behaviour in adulthood (Confessore & Park, 2004; Ding & Stapleton, 2016) and on understanding its complex nature (Dickinson, 1987; Little, 1995, 2007; Wenden, 1998). The most influential factors of autonomous learning concern desire, resourcefulness, initiative, and persistence, which denote a determined, goal-directed, and volitional learning behaviour (Confessore, 1992; Derrick & Carr, 2003). Other features that describe learner autonomy refer to the capability of conscious planning, maintenance, and reflection on one's own learning process (Chan, 2001; Hardeland, 2013; Little, 1999; Murray, 2014).

Concepts of autonomy and its aspects, in particular, the concept of control, underlie in-depth inquiry in second language acquisition. Distinct, yet interdependent categories of *control*, which may be exercised to maintain autonomous learning behaviour, provide the conceptual basis for Benson's (2001/2011) definition of autonomy. Accordingly, learner autonomy is defined as the ability to take control over "learning management, cognitive processes and learning content" (p. 50). Control over learning management is understood as the ability to consciously organize one's learning program. On the other hand, control over cognitive processes refers to the psychology of autonomous learning, which entails sustained attention, conscious observation, and the building of (metacognitive) knowledge about learning (p. 87). While these two aspects refer to different ways of learning, control over content suggests the ability to define *what* is to be learned. These are particularly relevant for autonomous language learning and can be translated into actual developmental approaches to content, student, and situational levels of autonomy, such as the independent use of paper- and/or computer-based learning resources, evolving effectual learning strategy-use, and independent learning within and beyond the classroom (Benson, 2001/2011). The instructor's role is nevertheless also highlighted in promoting language learner autonomy (Benson, 2011).

Autonomy and self-regulated learning (SRL) are often considered interchangeable notions (Murray, 2014). Whilst self-regulation originates in educational psychology and refers to the controlling of one's own learning behaviour related to the cognitive and affective perspectives of gaining new knowledge (Lewis & Vialleton, 2011), learner autonomy is a more complex construct that encompasses elements of self-regulated and motivated learning behaviour (Kormos & Csizer, 2014). The issue of control is included in both conceptualizations, however, in learner autonomy, the main aspects of autonomous learning identified by Benson (2001/2011) are believed to be excessively categorial to the disposition, and their development is not adequately explained. Contrary to this, in SRL theories, carefully elaborated and interrelated concepts are formed, which contain developmental possibilities as well (Lewis & Vialleton, 2011). For instance, Pintrich (2000) argues that during independent learning, mastery is gained in regulating cognition, motivation, behaviours, and context. These components are outlined on the basis of the major cyclical phases of SRL, including the processes of planning and goal setting, strategy implementation, monitoring of strategic outcomes and self-evaluation (Zimmerman, 1998). In particular, self-regulatory skills in language learning encompass behavioural control over pursuing learning goals, maintaining concentration, and certain distracting emotional states that may arise while conducting self-study practice (Tseng et al., 2006).

Albeit distinct features of autonomous learning and self-regulation, interrelations exist between the two constructs. Cubukcu (2009), for instance, found that adult learners with high self-regulatory habits show a greater degree of learner autonomy and use more cognitive and metacognitive strategies in learning. Further, Sierens et al. (2009) showed that there was a positive correlation between teachers' autonomy-supportive behaviour and learners' development in their capacity to regulate and monitor their own learning actions. Similarly, Dawson et al. (2015) found that promoting effective methods of formulating learning goals can positively affect adult learners' development in learner autonomy.

Learner motivation, that is, the strong persistence and willingness to intensify effort in learning (Jones, 2000; Reeve, 2014), also impacts autonomous learning (Confessore & Park, 2004). As for adult learning, rational as well as community-based motivational dimensions were identified, which can be strengthened by educational, professional developmental or social need-driven engagements (Knowles et al., 2014; Włodkowski & Ginsberg, 2017). In foreign and second language learning, particularly, integrative and instrumental orientation was found crucial (Gardner, 2010) for multiple age groups (cf. Csizér & Kormos, 2012). Integrative orientation is the positive attitude towards the community and culture of the target language, while instrumentality concerns learning pursued with the purpose of practical gain (Gardner, 2010). When discussing the relationship between learner motivation and perceived ability in autonomous learning, intrinsic interest, invested effort, and positive beliefs and attitude towards learning were identified as crucial (c.f. Jianfeng et al., 2018; Lam & Gurland, 2008; Prigmore et al., 2016; Thanasoulas, 2000; Uslu & Durak, 2022).

2.2. Self-regulatory strategies and their relevance for autonomous language learning in adulthood

Numerous researchers in FL learning and second language acquisition (SLA) argue that there is a need to reconceptualize the notion of strategic learning (Dörnyei, 2005; Oxford, 2011; Tseng et al., 2006) within self-regulation, that is, they propose a transition from discussing learning strategies to self-regulatory strategic models. In line with this notion, we reflect on Oxford's (1990) framework for SRL strategies in more detail by also acknowledging its compatibility with O'Malley and Chamot's (1990) model.

Self-regulatory strategies in research on adult independent learning are conceptualized as encompassing the capability of behavioural control of motivational and cognitive elements (Cubukcu, 2009; Stefanou et al., 2013). However, in SLA research, taxonomies of strategies are used. For instance, O'Malley and Chamot (1990) refer to metacognitive, cognitive and social/affective strategies; these latter ones correspond to Oxford's (1990, 2011) social, affective and communication categories. In Oxford's (1990) framework, SRL strategies are conceptualized as intentional attempts to sustain the effort to learn a target language. These strategies are also considered teachable actions selected by the learners themselves to achieve their previously set learning goals and can depict several spheres of one's self-led learning journey, which can refer to direct (i.e., cognitive, memory, compensation) and indirect (i.e., social, metacognitive, and affective) domains of one's self-study practice (Oxford, 1990, 2017). Direct learning strategies deal with the target language through specific tasks or learning-related situations, whereas indirect learning strategies refer to different aspects of general management of independent studying.

Cognitive strategies, in particular, assist in the processes of manipulation and transformation of the learning content, for instance, practicing or structuring the target language (Oxford, 1990). Strategies of practice include *repetition* that refers to written or verbal repetition and is applied many times when acquiring new vocabulary. *Grouping* is a memory strategy (Oxford, 1990) that refers to classifying new vocabulary based on its meaning, form, or attributes (Ellis & Sinclair, 1989; Tinkham, 1997). As Kuhlmann and Tournon (2016) pointed out, this particular strategy is applied to reduce age-related encoding strategy deficiencies, the efficiency of which was empirically proven. *Compensation strategies*, according to Oxford (1990), are, inter alia, directed to help learners overcome difficulties in producing the language or analysing its input that may play a key role for this particular age group (Grein, 2013). For instance, *inductive inferencing (guessing intelligently)* and *elaboration* are strategies that are often advised to use in order to promote listening or reading comprehension. While the former is defined as using the contextual information within a given text to find out the meaning of the unknown language items, the latter refers to applying existing knowledge in order to relate it to the information to be acquired (Vandergrift, 2008).

This study focuses on older language learners who experienced the grammar-translation method in their school years (which laid less emphasis on fluency-related activities) (Kaczor, 2011). Therefore, social strategies should also be discussed here. According to Oxford (1990, 2011), sociocultural-interactive learning strategies include asking questions and cooperating with others. Learners can also ask for correction when they are uncertain about the accuracy of their transmission (Oxford, 1990). Strategies of cooperation include practicing the language with peers or with other FL users in order to enhance fluency-related competences.

Strategies that promote emotional regulation are also to be discussed in this research, as self-view and its relation to motivation reoccur in language counselling sessions, the overarching aim of which is to promote adult learners' independent learning (Curry, 2014). According to Oxford (1990), affective strategies can be threefold. First, affective strategies that lower learning anxiety include *relaxation techniques*, such as deep breathing or meditation, which reduce psychological arousal caused by a high level of anxiety. *Rewarding* is another affective strategy, which refers to the act of self-acknowledgement based on one's achievement. Such reinforcements can be material, although they can also be manifest when completing a significant learning activity (Oxford, 1990; Stallard, 2002). Finally, *self-encouragement* includes making positive statements during learning (Oxford, 1990). Uttering or noting positive statements about oneself, as well as self-acceptance, can contribute to a higher self-concept, while excessive use of self-criticism and negative self-reinforcement may lead to a greater level of frustration (Marston & Cohen, 1966).

These strategies are guided by metastrategies, which are metacognitive, meta-affective and meta-sociocultural-interactive, and are a means to manage the language learning process and regulate the learner's needs in diverse situations (Habók & Magyar, 2018). These metastrategies encompass paying attention, planning, obtaining, and using resources, organising, implementing plans, orchestrating strategy use, monitoring and evaluation (Oxford, 2011). Hence, supporting these strategies is also important for older language learners.

2.3. Third age perspective: factors affecting learner autonomy, self-regulation and motivation in late adulthood

To promote a more reflective and self-directed approach to learning, identifying learners' individual needs and study aims have emerged as crucial instructional strategies (Qing, 2013). Hence, when scaffolding learning development in adulthood, specific adult learner characteristics need to be considered (Knowles et al., 2014). As for older learners, with ageing, cognitive changes play a key role in learning development, that is, altered cognitive functioning, for instance, memory, perception, or attention influence older adults' ability to acquire new knowledge (Baddeley et al., 2010; Grein, 2013). Ageing can also impact their self-regulation skills, affecting their ability to maintain attentive performance (O'Halloran et al., 2013).

Apart from biological factors of ageing (O'Halloran et al., 2013; Stemmer, 2010), social constituents of learning also need to be considered (Grein, 2020), such as prior educational experiences and changed learning aims or motivational behaviour (Kim & Merriam, 2004; Klimczak-Pawlak & Kossakowska-Pisarek, 2018) because these may further influence learner autonomy development (Berndt, 2003).

The most common components of motivational behaviour of this particular age group are *communication improvement* and *social stimulation*, which describe older adult learners as aiming to develop their interpersonal communicative skills and relations through participating in continuing education. *Cognitive stimulation or interest* is another component, which refers to older adult participants who enter various adult training for the primary purpose of acquiring new knowledge and sustaining their mental capabilities (Pfenninger & Polz, 2018). These less specific educational aims (Eguz, 2019) may have an effect on their attitudes and on how successfully they take control of their own learning process. One-to-one counselling for autonomous learning is, therefore, a method that is directed to foster processes of autonomy through practices that allow learners to manage their own learning in an effective way (Mynard & Carson, 2012).

2.4. One-to-one counselling to develop learner autonomy

One-to-one counselling is an activity that can be either psychoanalytical or solution-centred (Guterman, 2014). Counselling that is based on psychoanalysis focuses on exploring possible past causes that may influence one's present thoughts and behaviours (Jones, 2000), whereas solution-oriented counselling originates in the humanistic approach to advising and is thus based on the acceptance of positive human potential (Rogers, 1957). It also acknowledges counselees' capability of self-direction and emphasizes the encouragement of their self-development (Clay, 2002).

One-to-one counselling for autonomous learning specifically focuses on the enhancement of effective teacherless learning by identifying individual needs or aims and implementing possible solutions for learning development (Karlsson et al., 2007). In particular, advising or counselling in FL learning is a form of language support. It includes one or more one-to-one meetings between a language learner and an advisor who can be an FL teacher or an adult educator. Counselling provides useful approaches to and strategies for effective language learning (Mozzon-McPherson & Vismans, 2001; Voller et al., 1999), in particular, the promotion of self-directedness and development of self-awareness through the enhancement of self-understanding (Hardeland, 2013; Schiller et al., 2020).

3. The study

3.1. Research design and methodology

This research focuses on developing older EFL learners' learner autonomy through learning counselling. The learning path of the participating old-aged learners was our primary concern; therefore, we monitored learning activities as well as their reflections on those by asking them to keep reflective learning diaries (Landmann & Schmitz, 2007) throughout the counselling program. We also used panel surveys to investigate the long-term effectivity of the intervention on participants' independent learning practice.

We formulated the following research questions:

1. How do older learners conceive of their learning experiences during the counselling program?
2. How do older learners reflect on their independent learning experience over time, three and six months after the counselling program?
3. How do elements of their learning behaviour and their significance change over time, that is, in the 3rd and 6th months?

Research on developing learner autonomy, due to its considerable complexity, uses a variety of design approaches and methodologies to measure and evaluate the degree of autonomous learning behaviour (Mynard, 2006). This study relies on a quasi-experimental research design (Gopalman et al., 2020). Hence, it uses a basic time series pattern by investigating the possible effects of an intervention over a longer period of time (Kontopantelis et al., 2015). The panel study approach enables observation of a particular phenomenon with the same set of subjects over a period of time (Babbie, 1998, p. 102). This research allowed for exploring the possible effect of the counselling-program on the development of participants' autonomous learning.

3.2. Context and participants

The counselling took place between October and December 2019 at a Hungarian language school that offers courses solely to older learners from the age of 50 onwards. There were 25 participants enrolled (23 female and 2 male). Their ages ranged between 60 and 77 years ($M = 66.7$). According to the different stages of adulthood (Commission of the European Communities, 2005), they represented two main categories of the older population. That is, most of them earned a living as older employees, however, some joined the language course after retirement. Participation was voluntary, and pairing advisors and learners (cf. Schiller & Dorner, 2019) was conducted by convenience sampling (Cohen et al., 2002). Participants first filled in a paper-based questionnaire on learner autonomy, motivation, and self-regulated learning (Schiller & Dorner, 2020). They were also asked to use a reflective learning diary, and three and six months after the end of the program they were asked to fill out a questionnaire with open-ended questions. All data were anonymized; pseudonyms were assigned to each participant in order to preserve anonymity (Clark, 2006).

Counselling in FL learning began with a needs analysis which focused on potential learning-related problems (Hardeland, 2013; Langner, 2006). Therefore, participants filled in a questionnaire before their first meeting with the counsellor. Following this initial step, participants and their counsellors identified specific learning goals and created a feasible study plan, which included the estimated time to reach the learning objectives. A learning diary documented this (Langner, 2006; Mozzon-McPherson, 2000) and enabled monitoring progress, indicating the materials used, the time spent on studying, the applied study materials, and the reflective accounts on the effectiveness of learning. Once the plan was constructed, learning strategies to respond to the individual's learning needs were discussed in order to encourage knowledge and self-efficacy-development (Rampillon, 2003; Siebert, 2000). The counsellor thus introduced learning strategies in the sessions and applied a carefully co-constructed dialogue to ensure active student involvement. In so doing, they encouraged learners to talk about their language learning and make further decisions about their own progress (Hardeland, 2013; Mehlhorn, 2006). Participants also had the opportunity to develop their receptive (reading, listening) and productive (writing, speaking) skills in the counselling program. Audio-visual online materials were selected for this purpose, which took into account learners' preferences and knowledge level. In the last counselling session, participants focused on developing self-reflective skills by reflecting on the learning outcomes in the context of the entire counselling process (Chan, 2001; Hardeland,

2013; Little, 1999; Siebert, 2009).

3.3. Research instruments

3.3.1. Reflective learning diary

Participants met their FL counsellors individually three times over the ten-week program. All participants used a reflective learning diary in which they recorded their learning activities on a weekly basis. They were asked to take notes on their language learning-related aims, their individual learning strategies and applied resources (Ellis & Sinclair, 1989). This diary also entailed reflective questions about their learning activities (Winter, 2007). The instrument received ethical clearance (no. of ethical permission regarding the reflective learning diary: 2019/301). The learning diary approach was piloted with 6 participants in Spring 2018. The diary content was analysed by using a hybrid form of the Grounded Theory Approach (Corbin & Strauss, 2008). The results of the pilot and the modifications implemented were peer-reviewed and disseminated internationally (Schiller, 2018, 2019).

3.3.2. Open-ended questionnaire

The open-ended questionnaires consisted of two main parts: the perceived effectivity of language counselling on learners' learning behaviour regarding FL acquisition and on study areas other than language learning. These data were collected online in March and in June 2020, due to the outbreak of the coronavirus pandemic. The instrument received ethical clearance (no. of ethical permission: 2019/391–2). The questionnaire was piloted in November 2018 (six months after the initial iteration of the counselling program), and results were peer-reviewed and disseminated internationally (Schiller, 2019). The intracoder reliability of the revised version resulted in a *f* value of 0.79, which indicates an acceptable reliability level (see below).

3.4. Coding

Data were collected and then analysed by using a hybrid form of Grounded Theory Approach (GTA) (Corbin & Strauss, 2008) which contains a dual code system of pre-defined, theory-based, deductive and subordinated inductive elements. The analysis was conducted by using ATLAS.ti and consisted of open and axial coding (Swain, 2018). The axial coding was designed to interconnect inductive elements and investigate the complex interrelation of those codes. Hence, network analysis (with the assistance of yEd software) was performed to support the process of axial coding (Brailas, 2014; Schiller et al., 2020). We calculated centrality-measures to investigate the categories within the structure of the inductive codes in order to identify the most significant ones. Hence, this study does not

Table 1

Conceptions of learning during the counselling program.

Research Question #1		
How do senior older learners conceive of their learning experiences during the counselling program?		
Conceptions of learning in the counselling program		
Cognitive strategies (Comprehension-related development)	Elaborating unfamiliar information	"My goal was to understand and translate a text of my choice from several audio materials. I first selected two [...] videos that I liked. I listened to the first one and tried to interpret it. I divided it into different parts and outlined the coherent content. I started to look up the meaning of the unknown words in the dictionary. After that, I started experimenting with understanding new passages." (Abigail)
	Inductive inferencing	"I wanted to develop my vocabulary by guessing the meaning from context. I thus read a graded reading book of my interest. It was about animals. It was my first book in English." (Nicole)
	Cognitive stimulation (Memorization, grouping of new words, new words used in an invented context)	"With the help of language learning, I simply want to keep my mind sharp and improve my brain health." (Abigail) "I wrote down the words to be learned on a separate sheet of paper and grouped them: e.g., names of animals, external and internal characteristics etc. I also wrote sample sentences with them." (Polly)
Socio-interactive learning strategies	Clarification / cooperation	"My son living in the Netherlands spent some time at home. We played role games several times: e.g., what to say when buying something in a clothing store, when ordering some drinks in a café [...]." (Matilda) "I want to learn English at a level that allows me to get along abroad without any problems. I want to travel abroad several times a year and I want to understand foreigners." (Betsy)
Affective strategies	Self-esteem	"I use [English] more boldly and it motivates me to continue learning. [...] Practice gives me confidence. I gain more and more knowledge. [...] I have reduced my anxiety, for my self-esteem has improved." (Summer)
Metacognitive strategies (Awareness of learning strategies used)	Significance of active repetition	"In addition to passive learning (e.g., watching movies) more active learning practices should be incorporated into my study [...]. It would be important for me to "activate myself", to "switch to" active learning that entails more active revising and systematization of the material." (Sarah)

contain selective coding, since the research does not aim to form a theory based on the analysis of the emerging data (Strauss & Corbin, 1998).

One of the authors re-coded data with the purpose of further refining the coding labels and assessing the reliability of the analysis. We applied a modified version of Dafinoiu and Lungu's (2003) fidelity coefficient (f), which can be adapted to the peculiarities of GTA (Sántha, 2012; see also Holsti, 1969). The indicator was calculated on the whole set of interviews. The intracoder reliability of the reflective learning diary resulted in an f value of 0.95. This means that the reliability is acceptable according to this measurement approach. The final code structure was based on our second coding phase.

4. Findings

The first research question referred to how older learners conceived of their learning during the counselling program. The learning diaries captured counselees' reflections during the entire process. In the following, we will briefly explain these conceptualisations by also using sample quotes of the coded text. The excerpts were translated from Hungarian to English. In the course of the translation process, we paid careful attention to avoiding any judgement or opinion.

4.1. Conceptions of learning during the counselling program

Counselees' diaries revealed that learners identified the importance of understanding new or unknown content; hence, they reflected on using learning strategies of comprehension development to elaborate on unfamiliar information. In so doing, they used

Table 2

Reflections on the learning experience three and six months after the program.

Research Question #2		How do senior older learners reflect on their independent learning experience over time, three and six months after the counselling program?	
		3 months after the program	6 months after the program
Cognitive strategies	Inductive inferencing	"I don't have to use the dictionary constantly because I try to guess the meaning based on the context." (Rhea)	"I try to think in English when reading and check what I can understand without using a dictionary." (Rose)
	Cognitive stimulation (memory)	"I have realized that improving one's memory is a necessity at this age. Now, I also try to prevent other problems by keeping my mind sharp." (Jake)	"In everyday life, I feel that my memory has been improved. I don't have to take out my shopping list anymore because I can memorize the items more easily." (Khloe)
	Affective strategies	Motivational intensity	"I have noticed that I can understand more and more texts and it increases my motivation in learning. Additionally, I have also experienced that I can better perform at listening activities in the classroom." (Olivia)
	Self-confidence / Self-esteem	"Counselling improved my self-confidence. Positive attitude has boosted my confidence and had a positive effect on my speaking skill." (Hannah)	"My self-esteem has strengthened. Language advising has definitely scaffolded the development of my independent learning practice." (Summer)
	Self-efficacy / Self-management	"Counselling has lived up to my expectations, it has made me more confident: I dare to start things that I used to be afraid of and thought that it would exceed my abilities [...]." (Flora)	"I feel more organised, and I know what I want to do. I have started to section and describe in advance the tasks to be performed. I dare to undertake several things, even if it seems almost impossible at first: [counselling] has given me self-confidence in all areas [...]." (Flora)
Metacognitive strategies (Awareness of learning strategies used)	Distributed practice	"I have started studying English several times a week for a short time."	"I deal with learning English every single day and started studying it more thoroughly. [...] I consider repeated practice during listening essential so that I can enhance my understanding of the given material." (Olivia)
	Memorization		"I use flash cards for learning. When memorizing words, I write down the problematic words and practice them in the next round. I make sentences with them because it's easier to remember them." (Khloe)
Study-materials used	Audio-visual materials Online resources, applications Non-authentic graded readings	"I use the internet for learning, I watch English-speaking films, read books in English [...]. I have also bought a lot of graded readers in English; I have already read several of them and realized that I can understand English much better now." (Madison)	"I read the Oxford publications; I always use an online dictionary, often read articles in English on the internet, and watch programs in English on television. I look for lyrics of Beatles songs and others from Hair on the internet." (Rose) "In addition to using the coursebook, I have begun to use the internet for watching English-speaking videos. I like using Duolingo too." (Summer)

external means or existing knowledge outside the text to translate the entire subject matter or to take notes of the central elements of the audio material in order to foster understanding (Table 1). Still related to comprehension development, inferring the language by relying on contextual information within the text was another learning strategy frequently reflected upon by the learners. For instance, the use of non-authentic graded readers to develop understanding by expanding vocabulary in English was mentioned. Further,

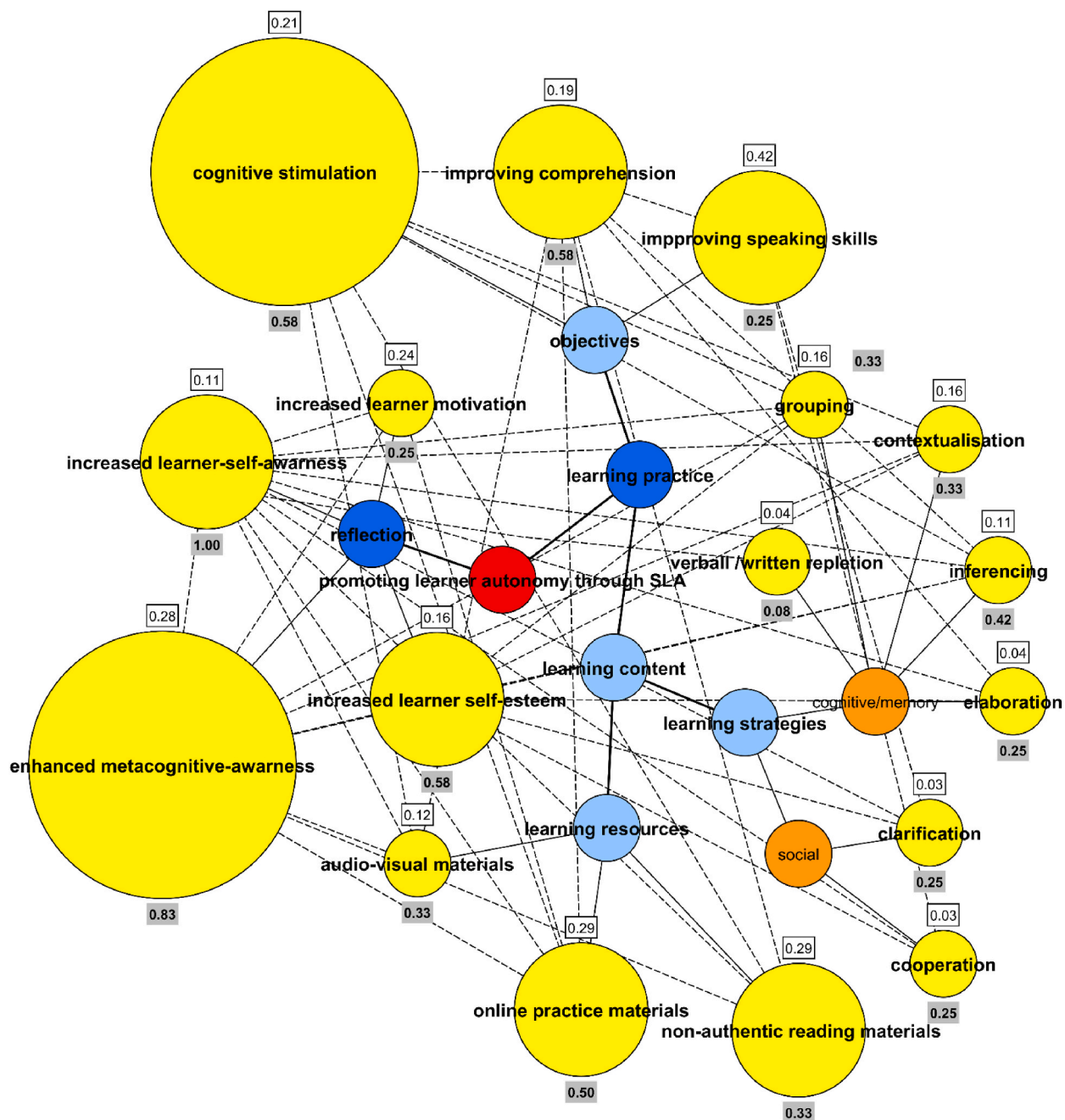


Fig. 1. The organic layout of conceptualisations of learning during the counselling process based on reflective learning diary entries. The red code represents the core category of the analysis, followed by the blue and the orange codes that were further second and third level deductive elements respectively. Yellow codes denoted the inductive elements. Edges of the deductive elements were signalled with increased thickness of arrow line, while edges of deductive and inductive interconnection were signed with thinner outline. Edges of inductive interrelations were marked with dashed line (cf. Schiller et al., 2020). The upper (white) numbers denote the interconnectedness of each inductive element, while the lower (grey) numbers stand for its ratio. Inductive codes with either higher level of interconnectedness or a higher level of ratio obtained greater (medium-sized) nodes. The greatest nodes were the ones that obtained both a higher level of interconnectedness and level of ratio.

counselees conceived of their learning in the counselling program as a means for cognitive stimulation. In particular, some mentioned that their main aim in joining a language course was to boost their memory and to prevent cognitive decline. Participants thus gave an account of applying learning strategies to memorize new vocabulary effectively. These included written and verbal repetition at the initial stage of the counselling program. However, later in the program, learning diaries included references to using and combining various learning strategies to better consolidate words to be learned. For instance, creating meaningful groups of words to study or using new vocabulary in an invented context (see Table 2).

As most counselees referred to the need to be able to communicate independently in the FL, they conceived of the counselling process as an autonomy-seeking opportunity that incorporated informal conversations about clarification or cooperation. Hence, they saw counselling as an opportunity to advance their sociocultural-interactive learning strategies.

As for affective dimensions, counselees reported that the ability to use various strategies generated a positive sense of achievement and a feeling of increased motivation. Some participants also shared that their self-confidence had grown simultaneously with their learning development.

Enhanced metacognitive awareness re-occurred in the reflective learning diaries; almost all participants noted the significance of active repetition during learning. They also recorded how counselling affected their awareness of their own skills and areas that needed further development. Counselling conversations that focused on supporting self-awareness helped participants increase their success in learning.

Complementing the linear representation of results, the visual depiction (Fig. 1) highlights the relationships among theoretical (deductive) and inductive codes, that is, the connectedness of participants' conceptions of the learning experience during the counselling program. In technical terms, the analysis aimed to find out more about the complexity of the interrelation of the inductive elements, by considering their associative relationship and quotation-based co-occurrence. We thus applied centrality measures to present the number of links held by each node to determine the node connectivity of a given inductive element within the network. We also aimed to analyse the re-occurrence by calculating the ratio of the number of documents of the inductive elements to the total number of citations within a given deductive unit. Here the purpose was to find out more about the appearance of an inductive element compared to other coded constructs.

The deductive codes were thus complemented with inductive elements based on the analysis of the diaries. The most central conceptualizations (central based on ratio and degree values of the network analysis) were comprehension development, cognitive stimulation, growth in self-esteem and self-awareness, and enhanced metacognitive awareness. As Fig. 1 shows, inductive codes that obtain more central nodes are as follows: learner self-awareness (1.00), obtaining 28% (12/43) of all the edges, followed by metacognitive awareness (0.83), aims for comprehension development (0.58), cognitive stimulation (0.58), and learner self-esteem (0.58). Based on the network dataset, concerning participants' reflective practice and study aims, inductive elements show a great level of interrelatedness with one another and the other inductive elements of older adults' independent learning.

Compared to the results of centrality measurement, inductive elements that obtained higher ratio were speaking improvement (42% of all the documents within the inherent deductive unit), non-authentic reading materials (29%), online practice materials (29%), metacognition (28%), and cognitive stimulation (21%). These refer to the frequent occurrence of inductive elements concerning learning purposes and applied study resources within the reflective learning diaries of older participants.

Inductive elements that obtained both a larger number of interconnections and reoccurrence were *metacognitive awareness* and *cognitive stimulation*. These central elements were thus found particularly important to contribute to learner autonomy development during the counselling program. This suggests that learning-orientation and effective learning management played a key role in older participants' independent learning while undergoing one-to-one counselling.

4.2. Conceptions of learning three and six months after the counselling program

4.2.1. Reflections on the independent learning experience three months and six months after the counselling program

The second research question focused on how older learners reflect on their independent learning experience over time, that is, three and six months after the counselling program. These reflections were collected by using an online questionnaire that older learners filled in three and six months after the counselling program had ended. The questionnaires thus aimed to inquire whether the counselling program had a longer-term effect on autonomous learning behaviour, taking self-regulated learning strategies and language learning motivation into consideration. Counselees highlighted a continuing predisposition towards cognitive stimulation in the period after the counselling had ended. They also reported improvement in applying inductive inferencing to foster comprehension skills of language learning three as well as six months after the counselling program.

They also described affective aspects of their learning when reflecting on their independent study period after the counselling experience had been over. Almost all participants reported an increase in motivational intensity, which they associated with a high level of effort and persistence. They also mentioned an increase in perceived general self-esteem and self-confidence. Interestingly, counselees did not refer to sociocultural-interactive strategies in this period.

Counselees, however, reported improved metacognitive awareness three and six months into the independent study period. In particular, they referred to beginning to plan their learning practices more consciously by distributing time devoted to learning in short sessions and incorporating repeated practice. They also described improved memory strategy use in vocabulary learning by structuring sentences or word groups with the words needed to be learned.

The study resources that older learners still used three and six months after the program were authentic audio-visual and online learning materials, applications, as well as non-authentic graded readings. They thought these learning materials contributed to their comprehension development.

4.2.2. Connections among counselees' conceptualizations three and six months after the counselling program

To have a more thorough understanding of the changes in learning behaviour over time, as also implied by the third research question, we explored connections among the conceptualizations identified three and six months after the program ended.

Fig. 2 shows the connections depicted after three months. We found three inductive codes obtained most of the edges: cognitive stimulation (1.00), learner motivation (1.00) as well as online (1.00), and audio-visual learning materials (0.89). All these elements obtained approximately 70% (23/33) of all the edges. Hence, there is a significant interrelatedness between the affective aspects of learning and the use of technology-supported resources with other aspects of participants' individual learning three months after the counselling program.

As for the appearance of the inductive elements, coded constructs that attained the highest ratio within the inductive elements were general self-efficacy (23%), learner motivation (22%), cognitive stimulation (18%), and the use of audio-visual materials (17%). This

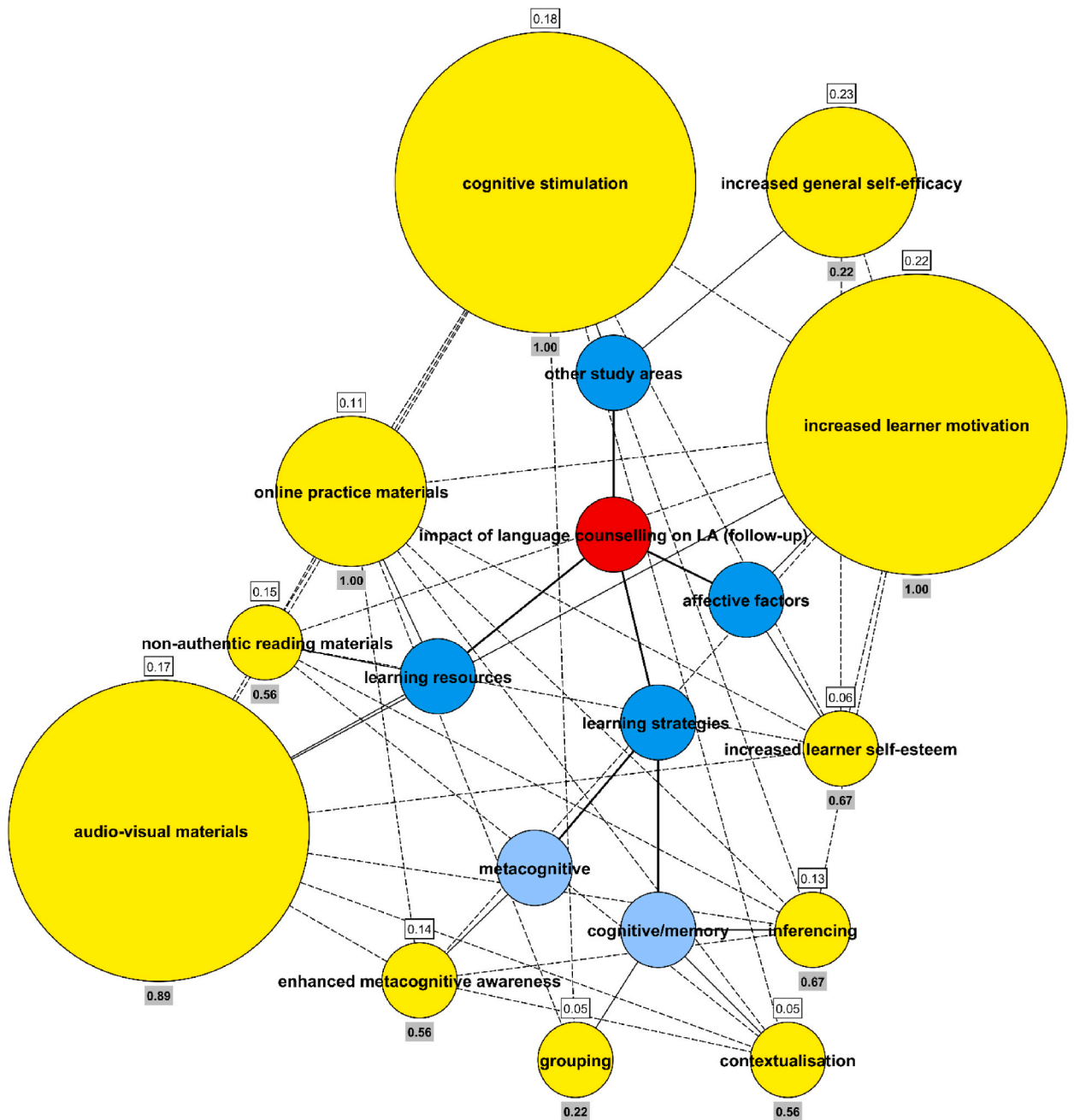


Fig. 2. Organic layout of the connections among the conceptualisations three months after the counselling program. The description of the colouring and the code-structure is the same as in the case of Fig. 1.

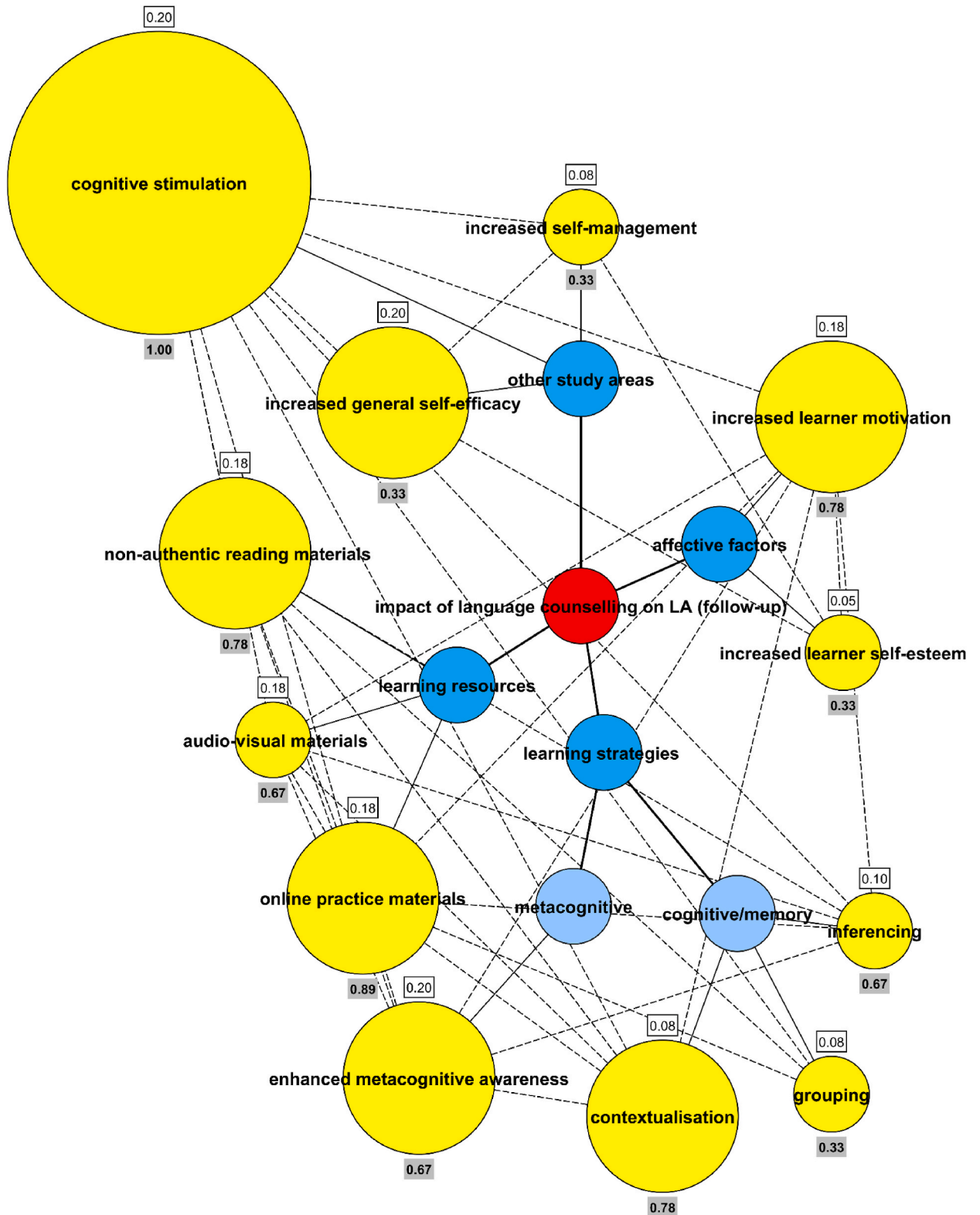


Fig. 3. Organic layout of the connections among the conceptualisations six months after the counselling program. The description of the colouring and the code structure is the same as in the case of Fig. 1.

implies that apart from global self-relating constructs and affective aspects of learning, technology-supported study resources were frequently mentioned by the participants.

Coded constructs that obtained both a greater level of interconnectedness and a higher ratio were learner motivation, cognitive stimulation, and audio-visual materials. This suggests that apart from the desire to learn and use cognitive capabilities, sustained motivational learning behaviour and the use of non-book materials played an essential role in participants' independent learning practices three months after the counselling program.

Six months after, as Fig. 3 depicts, two inductive codes obtained most of the edges, which are cognitive stimulation (1.00) – 26% (9/34) and online practice materials (0.89). Other inductive codes that obtained higher number of edges concerned learner motivation (0.78), the use of meaningful context during learning (0.78), and non-authentic reading materials (0.78). Hence, there is substantial interrelatedness among perceived cognitive stimulation, the use of non-book materials, certain cognitive learning strategies, as well as self-concept and -confidence, and other presented elements of participants' independent learning, which still appeared six months after the counselling program.

Inductive codes with the highest ratio concerned cognitive stimulation (20%), metacognition (20%), general self-efficacy (20%), learner motivation (18%), and the use of online learning materials (18%). This implies that the repeatedly appearing inductive elements were affective and metacognitive domains of learning as well as technology-supported learning materials.

Coded constructs that attained both high ratio and interconnectedness were in relation to cognitive stimulation, learner motivation, and online practice materials, which suggests that besides the importance of cognitive development, maintained learner motivation and the application of non-book tools for learning played a key role in participants' self-study practice six months after the counselling program.

4.3. Changes in learning behaviour based on counselees' reflections

As for the changes in learning behaviour, Table 1 shows that codes that obtained a higher number of edges in both phases of the follow-up investigation were cognitive stimulation (1.00 → 1.00) and online practice materials (1.00 → 0.89). This implies that there is a sustained interrelatedness of elements concerning the importance of stimulation in cognition and technology-supported learning materials and the other constructs (i.e. inductive inferencing, contextualisation, non-authentic reading materials, audio-visual materials).

Nevertheless, there were also substantial changes in learning behaviour. Applying meaningful context and non-authentic reading materials (0.56 → 0.78) showed a considerable increase in the six-month follow-up investigation in contrast to the earlier results. This may indicate that contextualisation and graded readers became more connected to participants' autonomous learning behaviour. As opposed to that, learner motivation (1.00 → 0.78), audio-visual materials (0.89 → 0.67), or self-esteem (0.67 → 0.33) obtained a lower level of interconnectedness. This suggests that certain affective factors of learning and the use of audio-visual media during participants' self-study practice were less connected to each other and to other inductive elements, that is, the use of these learning materials

Table 3

List of the inductive codes of the reflective learner diary and the follow-up questionnaires and their degree of significance based on the centrality measurement.

Inductive codes of the reflective learning diary	Degree	Ratio	3-month follow up	Degree	Ratio	6- month follow up	Degree	Ratio
comprehension improvement	0.58	0.19	partly incorporated ^a	–	–	partly incorporated ^a	–	–
speaking skill-improvement	0.25	0.42	N/A	–	–	N/A	–	–
cognitive stimulation	0.58	0.21	incorporated	1.00	0.18	incorporated	1.00	0.20
elaboration	0.25	0.04	N/A	–	–	N/A	–	–
inferencing	0.42	0.11	incorporated	0.67	0.13	incorporated	0.67	0.10
contextualisation	0.33	0.16	incorporated	0.56	0.05	incorporated	0.78	0.08
grouping	0.33	0.16	incorporated	0.22	0.05	incorporated	0.33	0.08
verbal/written repetition	0.08	0.04	N/A	–	–	N/A	–	–
clarification	0.25	0.03	N/A	–	–	N/A	–	–
cooperation	0.25	0.03	N/A	–	–	N/A	–	–
audio-visual materials	0.33	0.12	incorporated	0.89	0.17	incorporated	0.67	0.18
non-authentic reading materials	0.33	0.29	incorporated	0.56	0.15	incorporated	0.78	0.18
online practice materials	0.50	0.29	incorporated	1.00	0.11	incorporated	0.89	0.18
increased learner motivation	0.25	0.24	incorporated	1.00	0.22	incorporated	0.78	0.18
enhanced metacognitive awareness	0.83	0.28	incorporated	0.56	0.14	incorporated	0.67	0.20
increased learner self-awareness	1.00	0.11	partly incorporated ^a	–	–	partly incorporated ^a	–	–
increased learner self-esteem	0.58	0.16	increased learner self-esteem	0.67	0.06	increased learner self-esteem	0.33	0.05
N/A	–	–	general self-efficacy	0.22	0.23	general self-efficacy	0.33	0.20
N/A	–	–	N/A	–	–	increased self-management	0.33	0.08

Degree: degree centrality (in comparison to the most central node).

Ratio: Number of related documents (in comparison to the theoretical maximum/1.00/).

^a Certain inductive codes of the follow-up investigation point in this direction, however, there was no single inductive element in the follow-up study that could have gone by the name of the same inductive code.

and affective factors of learning were not necessarily perceived as supporting dimensions during participants' independent learning process.

Regarding the ratio of the inductive elements, the re-occurrence of which did not obtain significant changes were cognitive stimulation (18% → 20%) and learner self-esteem (6% → 5%). This may indicate that the importance of cognitive development and learners' self-concept obtained nearly equal percentages in appearance in both phases. In contrast, learner motivation (22% → 18%) was found to have a slight decrease in the six-month follow-up investigation as compared to the preceding measurement. Values for the application of online practice materials (11% → 18%) and metacognitive awareness (14% → 20%) showed an increase in the six-month follow-up investigation. This suggests that despite the decrease in learners' motivational behaviour, metacognitive knowledge and the use of non-book learning materials seemed to occur more frequently in participants' independent learning practice in the six-month follow-up investigation as compared to the preceding measurement.

Cognitive stimulation obtained both high ratio and interconnectedness in both phases of the follow-up investigation. This suggests that the significance of cognitive enhancement played a key role in participating learners' self-study practice in the third and sixth months past the program.

5. Discussion

The discussion is based on a comparative analysis of the inductive codes of each data-collection endpoint. It can be seen that the presence of certain coded constructs (Table 3) obtains alteration in each process of data gathering. This part of the paper, therefore, focuses on an elaborate systematization based on the level of re-occurrence and interconnectedness of the most significant coded elements. In terms of structure, our findings and their interpretations are organized so as to point to implications for the practice of developing older learners' independent learning practice.

We explored how participants conceived of their learning experience during the counselling program (RQ1) and found that cognitive stimulation and sustained motivational behaviour play an essential role for older participants in counselling for autonomous language learning. This is in line with previous findings that also highlight the significance of promoting learner motivation and cognition with the help of individualized third-age learning support (Pfenninger & Polz, 2018; Schiller et al., 2020). Further, reflective learning diaries revealed that comprehension and speaking development appear as primary motivators for older participants. However, when studying how participants reflected on their learning in the longer run and how elements of their learning behaviour had changed in the period of independent study (3 and 6 months after the counselling program) (RQ2 and RQ3), we found that older participants focused on their receptive skills by showing a greater interest in interacting with non-authentic reading materials or audio-visual resources rather than on developing their productive competences by applying social or compensation learning strategies. This concern for receptive skills development may be an inevitable shift that comes with the lack of a learning community following the end of the counselling program. We should nevertheless also take into account the challenges language learners encountered when developing their speaking skills during the pandemic (Ying et al., 2021).

Further, the application of cognitive learning strategies, also elaborated in our study, underscores the importance of cognitive training at the third age. These have a positive impact on older adults' learning performance (cf. Ball et al., 2002; Cadavid et al., 2011; Finn & McDonald, 2011). Importantly, however, the awareness of using these strategies is an essential value added by the counselling process, as these metacognitive strategies provide a means to manage one's own learning, including the processes of planning, maintaining, and evaluation (Oxford, 1990). Hence, our study also reinforces the notion that metacognitive awareness plays an essential role in successful language learning (Vandergrift, 2008); however, it further refines it by claiming that it does so for older language learners as well. Therefore, drawing their attention to its significance goes beyond the simple provision of techniques (Karpicke et al., 2009; Karsten, 2016) and should aim to elevate their use to habits of mind in the longer run (Altan et al., 2019; Costa & Kallick, 2000).

Self-view and its relation to motivation are reoccurring concepts of language counselling sessions with adult learners (Curry, 2014). These can be related to lowering anxiety, increasing self-acknowledgement, or fostering self-encouragement (Oxford, 1990). In our study, too learner self-view played an important role, that is, it is identified as an important self-relating construct which supports emotional regulation in older participants' independent learning practice – during and, importantly, also after the counselling. Increasing age can significantly impact one's feeling of self-worth (Orth et al., 2010; Ravary et al., 2020). Therefore, supporting the development of self-view in life-course transitions has robust significance, as it can have a positive impact on effective learning (Curry, 2014; Li et al., 2022; Sun & Wang, 2020).

Furthermore, perceived self-efficacy and self-management were found crucial after the one-to-one counselling had been over and had implications for activities beyond language learning. This meant, for instance, that older counsees transferred techniques learned to maintain their independence as individuals, that is, used those when managing their everyday activities (e.g. training their memory to better organize their duties). In particular, older adults' participation in continuing training may affect their beliefs about the abilities of executing other courses of action (Barrantes, 2010; McAuley et al., 2003). Self-esteem is thus an important facet of affective constructs in learning (Cotterall, 1995) and refers to one's positive or negative attitude toward the self (Neiss et al., 2006). Previous research claimed that enhancement of self-esteem can greatly impact one's motivational behaviour concerning language learning, especially when one's positive self-concept is dependent on learning achievement, which our study, to a certain degree, also highlights.

Hence, in teaching older FL learners, educators are advised to promote their learners' self-view by encouraging them to articulate positive statements about themselves on a regular basis when reflecting on a completed learning activity. These discussions may contribute to learners' higher level of self-esteem (Marston & Cohen, 1966). Teaching and learning, therefore, needs to raise awareness of the effect of negative thoughts on one's feelings and should support behaviour by holding explicit classroom discussions about the

possible effects of negative beliefs on learners' achievement (Curry, 2014).

Self-efficacy, another construct, refers to the extent of presumability of being able to represent a considerable achievement (Bandura, 1991) and can have an impact on effective studying (Li et al., 2022; Sun & Wang, 2020; Tan et al., 2020). In many cases, a lack of self-efficacy is related to the learning environment suggesting a less supportive classroom atmosphere, which can negatively influence successful learning (Hardeland, 2013). Thus, discussions that raise consciousness about learners' existing internal and external assets can contribute to a higher self-view (Marston & Cohen, 1966). Activities that are based on one's introspection can be fostered by reflective learning diaries that include reflective questions directed to one's emotional reaction to the given learning endeavour and inquire about the cognitive aspects of one's learning process (Winter, 2007). In our study too diaries provided opportunities to evaluate one's own learning behaviours. In so doing also created paths to the development of self-view and self-encouragement of older adults. Nevertheless, further research that investigates development of older adults' FL learning autonomy is much needed. In particular, more objective (i.e., beyond self-perceived development) approaches and tools are needed that aim to measure the impact of using, for instance, cognitive learning strategies. A similarly relevant approach could be to study the transfer of strategies for FL learner autonomy development in other contexts in more explicit ways, that is, other than self-perceived transfer. Piloting the use of online FL learning applications specifically designed for and with older learners could be an important direction in this endeavor. This obviously requires complex methodological solutions which could integrate, for instance, multimodal learning analytics.

Unlike previous studies which claim that older learners are short of digital literacy (as opposed to younger generations) (Friemel, 2016; Smith, 2014), a relatively high level of ratio and interconnectedness was found concerning the application of technology-supported learning materials during and after the counselling program. Hence, enhanced independent interaction with a diverse set of study materials can also promote learner autonomy development. As Benson (2001/2011) outlines, facilitating learners' out-of-class study experiences with the help of suggesting learning resources can positively affect learner autonomy enhancement, for one becomes able to choose their own path of learning by taking responsibility for learning materials (also in Chalkowa, 2018). With digitalisation, FL learners, too, are offered vast possibilities to develop their language learning skills through alternative ways, such as online language learning applications (Chun, 2011). Numerous web-based programs-and mobile applications are available that promote language learning skills specifically. These types of tools are designed to enhance competences of FL learning by offering a choice of materials, practices, and testing formats to promote specific areas of language acquisition (Rossel-Aguilar, 2017). Such tools can assist, for instance, in vocabulary development (Pamintuan et al., 2018) by entailing several vocabulary-drilling exercises (e.g., Quizlet) or in promoting receptive skills by offering graded reading (e.g., Oxford Reading Club; Clifford Interactive Storybooks) (Lin, 2014) or audio-visual materials (e.g., BraiPop Featured Movie, VoiceTube) for language learners to enhance their reading or listening competencies (Chen, 2016). There are many web-based resources that offer spelling or phonetic practice or even interaction opportunities to FL learners (e.g., Tandem). Apart from online tools aimed at promoting specific areas of language learning, there are others that provide learners with a more comprehensive language learning experience (e.g., Duolingo, Drops). These applications offer extensive instructional materials and also incorporate the practicing of different skills. Using them may lead to the development of several competencies including vocabulary enhancement, phonological awareness, or listening comprehension skills (Chen, 2016). Nevertheless, adult learners are often thought to face technical problems when applying online materials or platforms independently (Ochel, 2002). Hence, supporting older people to become digitally connected and to use online resources more effectively should be on the agenda of third-age programs (Cebrenros-Valenzuela et al., 2020; Guban-Caisido, 2020; Moore & Hancock, 2022; Richardson, 2018).

6. Conclusion

Developing learner autonomy is undoubtedly needed (Chan, 2001; Ellis & Sinclair, 1989; Hardeland, 2013; Mynard & Carson, 2012; Yang, 1998), and one-to-one counselling, although originally applied with young learners, may become a key strategy that extends forms of assistance to older learners when learning independently (Schiller, 2018; Schiller & Dorner, 2019). Raising consciousness can help older counsees to become aware of their existing assets and possible strategies for learning. Further, practicing and reflecting on new directions of learning can enable older adults to gain a better understanding of knowledge development and to transfer successful study behaviours to new learning contexts, which may contribute to healthy and active ageing.

In particular, our analyses revealed that evolving digital competence is crucial when focusing on older adults' learner autonomy development. Thus, support schemes that target this particular population should pay special attention to the effective use and integration of online learning materials (Ochel, 2002). Furthermore, promoting individuals' positive self-view should also be used as an overarching counselling strategy when scaffolding older adults' autonomous learning development (Schiller et al., 2020). It is further recommended to focus on offering guidance on effective learning strategies that also enhance the performance of long-term memory as it plays a key role in countering cognitive decline (Baddeley et al., 2010).

Nevertheless, our findings have limitations. In particular, it is the exploratory nature of our investigation, as our study entails a relatively small sample and a homogenous research site. Hence, findings may not be entirely generalized to learner autonomy development of older adults irrespective of the context and counselling interventions. Because of the features of the sample, the notion of creating a conceptual framework was remitted (cf. Strauss & Corbin, 1998). Nevertheless, formulating a theory did not underlie our investigation. On the contrary, the study took the exploratory steps to inquire about an understudied field and provided a methodological approach to conducting the research itself, which we hope is relevant in other contexts as well.

Authorship contributions

Emese Schiller: Conceptualization, Data curation, Writing- Original draft, Writing- Reviewing and Editing, Visualization, Investigation

Helga Dorner: Conceptualization, Supervision, Writing- Reviewing and Editing

Zoltán András Szabó: Conceptualization, Methodology, Software, Visualization, Writing- Reviewing and Editing

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