In search of the 'active ingredients' of the learning process: specificities of adult learners and learning

If there are some basic features characterising all learning processes, adult people's learning differs substantially from children's. We start this section by exploring these specificities and then mapping the features that tend to make adult learning experiences successful. The first product of the LALI project ("Methodological and theoretical background" has already explored aspects specifically related to language teaching. To maintain a complementarity, in this section we'll focus on other factors more related to the process rather than the pedagogical content.

3.1. Andragogy and a first conceptualisation of the "adult learner"

The term "andragogy" gains a new popularity in the 1960' thanks to Malcolm Knowles who uses it to denote the distinguishing features of adult learning compared to the way children learn. Knowles identified 5 assumptions that he believed have a deep impact on how adults will position towards learning opportunities. We'll also add a 6th one from James (1983) which may be just as relevant.

1. Self-Concept
As a person matures his/her self concept moves from one of being a dependent personality toward one of being a self-directed human being.

2. Adult Learner Experience
As a person matures he/she accumulates a growing reservoir of experience that becomes an increasing resource for learning.

3. Readiness to Learn
As a person matures his/her readiness to learn becomes oriented increasingly to the developmental tasks of his/her social roles.

4. Orientation to Learning
As a person matures his/her time perspective changes from one of postponed application of knowledge to immediacy of application. As a result his/her orientation toward learning shifts from one of subject-centeredness to one of problem centeredness.

5. Motivation to Learn
As a person matures the motivation to learn is internal
(Knowles 1984:12)

6. Capacity to learn
Adults maintain the ability to learn but experience a gradual decline in physical/sensory capabilities
(James 1983 cited in Brookflield 1986:38)

We have collected some in the table bellow, but don't hesitate to think about further consequences.

Assumptions about adults	Implications for adult learning experiences
Independent self-concept, autonomy	Adults must choose and actively participate in the learning process. "Adults need to be involved in the planning and evaluation of their instruction" Knowles 1984
Internal motivation	Life experience must be integrated in the learning process as a resource
Accumulated life experience	The climate should make "adults feel accepted, respected, supported" there should be a "spirit of mutuality between teachers and students as joint inquirers" (Knowles 1980)
Readiness to learn connected to real life context	Learning must answer real life challenges and tasks. Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life. (Knowles 1984)
Problem-centred learning orientation	
Possible decline in physical/sensory capabilities	Methods must be in line with a cognitive economy

Table 2. – Assumptions about adult learners and the resulting implications for the process

The approach of Andragogy as proposed by Knowles received much criticism from different perspectives: for not being scientifically thorough, for its non-reflected ethnocentrism and individualism. Despite all the critique practitioners still find it useful as a framework and guide to teaching adults (Merriam et al 2007:87). However, let's take a step further, inviting this time a more scientific approach, overviewing some findings and recommendations from the recently developing educational neuroscience.

3.2. Contributions from educational neuroscience, understanding the specific needs of adults in difficult situations

The assumptions above refer to a general adult population that disregards the social context of adult learners. What's more, since the conceptualisation of andragogy there have been some changes in the social economic context of our societies and in particular on the needs towards adult learning. One of these changes is the high prevalence of "low-skilled" adults. Most trainers working in second language trainings for adults will be likely to meet learners from this category.

In their publication "Getting Skills Right Engaging low-skilled adults in learning », the OECD (2019) gives the following criteria for the label of low-skilled adults:

- Adults with low educational levels, namely those whose highest qualification is at lowersecondary level (ISCED 0-2), which means they have not completed high-school or equivalent, or
- Adults with low cognitive skill levels, namely those who score at proficiency level 1 or below in the literacy (in the local language) and/or numeracy dimension of the OECD survey of Adult Skills (PIAAC). These are adults who can at most complete very simple reading tasks, such as read brief texts on familiar topics, and mathematical tasks, such as one-step or simple processes involving counting, sorting, basic arithmetic operations and understanding simple percentages.
(OECD 2019)

Following this definition, the OECD (2019) estimates that one fifth of the populations of the member countries (which includes Europe) are in this category. And while the authors stress that this label does not at all mean that these adults with low literacy and numeracy levels do not possess a wide range of other skills, it is still important consider the impacts. Chung (2019) gives a summary of the implications: for learners coming from disadvantaged backgrounds it is more likely that as children they have heard more discouragement than encouragement, their questions were more probably met with anger or impatience from the caregivers often under the stress of multiple jobs. As a result, the chronically high stress levels mobilize the body's survival mechanism, and these children may grow up as adults with poor stress responses and inhibited cognitive development. Furthermore, situations of forced migration often imply experiences of loss and grief, that can also lead to higher stress levels and anxiety states (Chung 2019).

Accordingly, to the specificities identified by Knowles, we can add some further features connected to adults with low education level, possibly with an experience of forced migration. These may not apply to all your learners, but could be relevant for some in the learning contexts of second language training such as the LALI project. To follow the list of the assumptions proposed by Knowles we can add these further items:

7. Adults with low education level or cognitive skill levels
having " Adverse childhood learning experiences associated with shame can then result in a sense of fear and anxiety in an educational setting" (Chung 2019)

8. Adults in situation of migration / asylum seekers
Facing stressful situations (lack of housing, lack of work, loneliness), which can generate a deficit in cognitive functions, such as attention and memory.

9. Adults may lack the experience of Western-style education system
Approaches and institutions of education vary substantially between countries and cultures, Western-style schooling should not be considered universal across cultures.

10. Lack of positive representation of schooling and learning
Members of minorty groups may have had experiences of rejection, discrimination contributing to a quite negative representation of schooling, often equated with "learning"

What are the implications / exigencies for adult learning experiences from these assumptions? To identify these, we follow Chung, who offers some recommendations from the approach of educational neuroscience (see table 3 next page). The first group of recommendations focuses on creating a safe space, a positive emotional learning environment. This is particularly relevant for learners who accumulated negative associations about learning in their youth, and their capacity to engage in learning is dependent on the extent the facilitator will be able to create such a positive learning environment. The second branch of recommendations is meant to facilitate the connection of the new material to previous experiences and current life situations. The stronger this connection, the better the integration of the newly acquired information or skills. Finally, a third group of recommendations answers the lack of familiarity with the cultural practice of Western-style schooling. Indeed, Western-style school system is not universal, nor is it culturally neutral. If we may perceive it as such, it is only the result of our own ethnocentrism: most of us has gone through such an educational system, this is how we learn "learning". However, this may not be the experience of many of the adults we meet during the language classes.

Assumptions about adults	Implications/expactiations for adult learning experiences
Negative associations, emotional scars about learning, higher stress levels	**Creating a safe space for learning** • "Holding environments" characterized by a balance of support and challenge, where the trainer ensures safety, helps build knowledge and confidence, offers learners accessible challenges and autonomy. • Creating "trusting relationships" between learner and trainer but also amongst learners. • Creating common ground Level 1 - Sharing information regarding specific subject matter or resources Level 2 - Sharing personal stories, experiences, feelings, and preferences. Level 3 - Sharing deeply personal information, gut-level values, and beliefs.
Less-than-optimal neural pathways for the learning	**Designing Meaningful Learning Experiences** • Drawing Out Prior Experience: reaching out to existing experience to create the connections necessary to anchor the new knowledge. • "Extending consciousness" bringing new concepts to connect to learners' prior experiences and make generalisations or extrapolation to new situations. • "Enriching consciousness": injecting novelty by connecting to emotion-triggering real-life events.
Lack of "expertise" in western-style learning methods	**Learning through articulation: storytelling, journals, autobiography** Exploiting the tradition of oral storytelling present in virtually all cultures. "storytelling has a deep evolutionary history that has been woven into the fabric of our brains, minds, and relationships" and stories function to create social unity, regulate emotions, and aid memory. (Cozolino cited by Chung 2019)

Table 3. – Implications of contextual elements on adult learning processes