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An overview of the theory and empirics of lifelong learning categorization¹

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Abstract

Empirical research on learning sources and outcomes requires that a comprehensive definition of lifelong learning categories is produced to enable an easy operationalization of learning variables. By combining existing definitions used in theoretical debates and empirical surveys, an attempt is made to introduce a comprehensive set of criteria to describe the three learning categories (formal, non-formal, and informal). These criteria are then used to juxtapose a variety of surveys' approaches to measuring an individual's level of participation in lifelong learning.

Key words: lifelong learning, formal education, non-formal learning, informal learning, learning variables

An overview of the theory and empirics of lifelong learning categorization

This study aims to furnish a clear definition of lifelong learning categories that can be used to measure how people participate in learning activities throughout their lives. The first section provides an overview of definitions that key institutions use for learning instances. The second section discusses how major surveys that are relevant to education and human capital generally operationalize lifelong learning. Finally, the third section presents new definitions for lifelong learning categories and explains how these were formulated.

Key definitions derived from the policymaking literature

The existing literature generally agrees on the definition of lifelong learning but disagreement remains with regard to learning categorization. There are currently three common research approaches provided by CEDEFOP, the EU, and the OECD. The most conventional approach is provided by the European Centre for the Development of Vocational Training, CEDEFOP (CEDEFOP, 2000). It distinguishes between three types of learning – formal, non-formal, and informal. The classification is derived by applying two main criteria: (1) the degree to which learning is intentional and (2) the structure in which learning takes place. The intention to learn focuses on the learner in the learning process and the structure refers to the context in which learning is embedded (Colardyn & Bjornavold, 2004). Accordingly, *formal learning* is defined as learning that occurs within an organized and structured context (secondary and tertiary education, initial vocational training). It may lead to a formal recognition (diploma, certificate) and is usually intentional from the learner's perspective. *Non-formal*

learning represents learning embedded in planned activities that are not explicitly designed as learning, but which contain an important learning element (Hippach-Schneider et al., 2007). Like formal education, non-formal learning is intentional from the learner's point of view, but it does not lead to a certification (Hippach-Schneider et al., 2007). *Informal learning* is defined as learning that results from daily life activities associated with work, family, or leisure. It is often understood as experimental or accidental learning. It is not structured in terms of learning objectives, learning time, and/or learning support and rarely leads to a certification.

The European Union has largely adopted the CEDEFOP's typology of lifelong learning categories although it uses different criteria to formulate definitions. The conventional principles of intention and organization² are not used here for differentiating among learning types but rather to distinguish between learning and non-learning activities (European Commission, 2006). The main criteria of learning features considered here are (1) whether or not learning is institutionalized and (2) whether or not learning leads to a qualification that is recognized by the National Framework of Qualification (European Commission, 2006). As such, *formal learning* is believed to be primarily institutionalized learning in the form of courses with examinations. Upon successful completion, it leads to a learning achievement that can be positioned within the National Framework of Qualification (European Commission, 2006). *Non-formal learning* is learning that is not institutionalized but still involves courses, albeit without examinations, and which does not lead to any recognized qualification. Finally, *informal learning* is defined as non-institutionalized learning that does not involve any courses or examinations (European Commission, 2001).

² Intention is viewed here as a deliberate search for knowledge, skills, and competences, while the principle of organization is defined as planned in a pattern or sequence with explicit or implicit aims.

The Organization for Economic Cooperation and Development (OECD, 1998) provides a slightly different definition of lifelong learning categories by expanding them to four groups and by teasing out learning at the workplace as an independent learning instance. Their typology is based on the type of educational institution in which learning occurs and the stage of life at which an individual engages in the learning. Accordingly, *formal education* is perceived as the learning that happens at different levels, such as early childhood, school-based compulsory education, tertiary education, adult education, etc. *Non-formal learning* is mainly corporate-based training and public labor market training. *Experience acquired in one's working life* in different organizations and through specific activities, such as R&D, is considered to be a separate learning category. *Informal learning* includes learning that takes place in more informal environments, for instance, hobby networks, families, and communities. Even though the OECD typology contains four groups, it does not contradict the CEDEFOP classification scheme. They overlap in the sense that the OECD defines learning at one's workplace as occupational life experience that can be considered as a form of informal learning. However, this definition is incomplete since non-formal learning is limited to corporate-based training and does not include either participating in any kind of training outside of the workplace or training that an individual initiates by him/herself.

There is no precise agreement among leading organizations on the number of categories lifelong learning consists of or their exact meanings. The latter shortcoming can be explained by the fact that many definitions reported have not been developed according to international definitions per se but for a variety of purposes mostly related

to monitoring education and training systems (European Commission, 2001). They are therefore very difficult to quantify, especially for survey questionnaires.

An overview of lifelong learning definitions used in surveys

Surveys rarely provide a definition or typology of learning. But they do clearly outline different types of learning activities that individuals undertake in the course of their lives, without linking these to specific learning categories. The main disadvantage here is that most surveys use different approaches when considering which learning instance represents formal, non-formal, or informal learning. A brief overview of questions used by the main surveys related to education, income, or human capital are provided below and summarized in Attachment 1.

The International Adult Literacy and Life Skill Survey (IALSS, 2003; ALL, 2003) distinguishes between formal and informal education. According to their glossary, formal education refers to a person's number of completed years in formal studies at the primary, secondary, or a further education level. They regard any form of learning as informal when it falls into one of the following broad categories: visiting fairs, professional conferences or congresses, short lecture, seminars, workshops or special talks that were not part of a course; reading manuals, reference books, journals or other written materials that were not part of a course; going on guided tours such as museums, art galleries, or other locations; using computers or the internet, video, television, tapes to learn but not as part of a course; learning by watching, getting help or advice from others but not from course instructors; learning by oneself by trying things out, doing things for practice, trying different approaches to doing things; learning by being sent around an organization to understand different aspects of that

organization. If a respondent answered yes to at least one of these questions, the response is categorized as having participated in informal learning.

The Labour Force Survey - LFS- (Eurostat, 2011) uses a different approach in distinguishing between categories of learning. It specifies two major categories - regular education and taught learning - without linking them to the conventional typology of learning activities. Accordingly, regular education refers to learning that results in any kind of education leading to a degree, diploma, or certificate. Taught learning encompasses learning activities that are outside of the regular education system and may include: courses, seminars, conferences, private lessons, or instruction (Eurostat, 2011).

The Program for the International Assessment for Adult Competencies - PIAAC - (PIAAC, 2010) uses a similar approach and distinguishes between formal and organized learning. The survey asks whether a respondent is currently studying for any kind of formal qualifications, which suggests that the term “formal qualifications” refers to formal education. Another group of questions asks whether a respondent participated in organized learning, which includes courses conducted through open or distance education, organized sessions for on-the-job training or training by supervisors or co-workers, seminars or workshops, courses or private lessons, not already reported. The PIAAC goes further than the LFS by incorporating on-the-job training as an organized learning form.

The Adult Education Survey -AES- (Eurostat, 2007) further broadens the LFS and the PIAAC definitions by clearly distinguishing among learning forms in a way that is similar to the three types of learning forms used by the CEDEFOP. There is a formal education category, which is regarded as education undertaken in formal education institutions. These include education institutions at any ISCED level that offer an

education leading to a qualification recognized by the National Framework of Qualification. The glossary does recognize that it is possible for this type of institution to provide non-formal education. The survey then isolates a number of learning activities into a separate group that bears resemblance to those of the PIAAC organized learning, including private lessons or courses (classroom instruction, lecture or a theoretical and practical course), courses conducted through open and distance education, seminars or workshops, as well as guided on-the-job training. The AES further isolates informal learning into a separate category and explicitly refers to it as informal learning. This category encompasses the following learning activities: learning from a family member, friend, or colleague, using printed material (books, professional magazines, etc.), using computers (online or offline), guided tours of museums, historical/natural/industrial sites, and visiting learning centers (including libraries). The survey glossary also specifies that learning from a friend, colleague, or family member can take place by instruction, observation, or doing the activity with others.

A new framework for lifelong learning categorization

Combining the aforementioned typologies may allow one to select a set of criteria to provide a clear definition for the three learning categories: formal, non-formal, and informal. As such, I introduce the four following criteria: structure, intention, control, and coverage.

- 1) *Structure* refers to the extent to which learning is structured and describes whether or not the context of learning is officially organized, planned, and prepared;

- 2) *Intention* refers to the extent to which learning is intentional and measures the centrality of the learner in the learning process;
- 3) *Control* refers to the extent of control the learning provider has and includes a range of control mechanisms used by an educator to enforce the learning process or to assess attendee performance or the quality of knowledge that attendees obtain as a result of the learning activity; and
- 4) *Coverage* refers to the extent of topic coverage and indicates how broad the range of subjects/topics is that the learning activity covers.

Applying the four criteria to the three lifelong learning categories may contribute to clarifying features of each type of learning: *Formal learning* is hence learning which is structured, controlled, intentional, and has a broad coverage of topics. This suggests that formal learning activities usually occur in a structured and organized context, with the participant being at the center of the learning process. In addition, it presupposes that clear mechanisms exist to control or measure the quality of an individual's learning performance, which acts as a basis for issuing a degree, diploma, or certificate. Finally, formal learning usually has a broad coverage and hence includes not only one course but a sequence of related courses that cover different aspects of the main field of study, leading to the formation of an encompassing and complete view of the field. Studying at a university or participating in an initial vocational training program are good examples of formal learning.

Non-formal learning is learning that happens in structured contexts and where the participant is central, but it lacks the control mechanism on the part of the learning provider and has a narrow coverage. This suggests that non-formal learning is well organized, planned, and focused on the participant, but it lacks measures of participant

performance and rarely results in a certification. In addition, the level of coverage is limited since non-formal learning usually focuses on in-depth coverage of a relatively narrow topic or a short introduction into a broad topic, neither of which can provide sufficient knowledge for a certified qualification or degree. Examples of non-formal education include learning a foreign language in a language school, job-related courses undertaken during or outside of work time either in the workplace or outside of the workplace, or participating in a conference (European Commission, 2006; Eurostat, 2007).

Informal learning is learning that is usually not structured or intentional, with no control mechanisms, and a very narrow coverage spectrum. Informal learning is often perceived as learning that takes place in everyday life, on the job, within the family circle or during leisure time and it occurs by instruction, observation or doing the activity with others (European Commission, 2006; Eurostat, 2007). Examples of informal learning can, for instance, include: watching a documentary on TV, listening to a foreign language audio tape in the car, or face-to-face instruction from a colleague on how to use a new tool at work (European Commission, 2006; Eurostat, 2007).

Visually, this classification can be presented as follows:

Table 1: A juxtaposition of three categories of lifelong learning

	Formal	Non-formal	Informal
<i>Structure</i>	Structured	Structured	Not structured
<i>Intention</i>	Intentional	Intentional	Not intentional
<i>Control</i>	Controlled	Not controlled	Not controlled
<i>Coverage</i>	Broad coverage	Narrow coverage	Narrow coverage

If this logic is applied to the existing surveys, one can say that formal learning is regular or formal education. Similarly, non-formal learning is learning which happens outside of regular or formal education but still retains features of organized learning and can take place in an educational, non- educational institution, or at a workplace. Finally, informal learning is learning that takes place in everyday life or at work by instruction, observation, or doing the activity with others.

Conclusion

This paper introduces a comprehensive framework derived from four criteria to provide clear definitions for the commonly used categories of lifelong learning: formal, non-formal, and informal. Juxtaposing the three categories of learning with the set of questions on learning as formulated by the major surveys may help create a clear distinction between sets of operationalizations for each of the learning variables. Overall, the paper suggests that the AES questions and response categories explicitly cover all of the types or forms of learning and hence are able to trace a respondent's learning history in the most encompassing way.

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Table 2: Examples of questions used in surveys to measure the respondent's participation in lifelong learning

	IALS	(IALS) ALL	LFS	PIAAC	AES
Formal	<p>Which of the qualifications on this card is the highest you have obtained?</p> <p>During your lifetime, how many years of formal education have you completed beginning with grade one and not counting repeated years at the same level?</p>	<p>Did you take any education or training in last 12 months?</p> <p>Did you take any courses as part of a program towards a certificate, diploma, or degree?</p>	<p>Student or apprentice in regular education during the last 4 weeks?</p>	<p>Which of the qualifications on this card is the highest you have obtained?</p> <p>Are you currently studying for any kind of formal qualification?</p>	<p>During the last 12 months, that is since <<month, year>> have you been a student or apprentice in formal education (full time/part time) ?</p> <p>In how many formal education activities you participated in during the last 12 months?</p>
Non-formal			<p>Did you attend any courses, seminars, conferences or received private lessons or instructions outside the regular education system (hereafter mentioned as taught learning activities) within the last 4 weeks?</p> <p>Number of hours spent on all taught learning activities within the last 4</p>	<p>We would now like to turn to other organised learning activities you may have participated in during the last 12 months, including both work and non-work related activities. We will distinguish between courses mentioned on this show card.</p> <p>A. Courses conducted through open or distance</p>	<p>During the last 12 months have you participated in any of the following activities with the intention to improve your knowledge or skills in any area (including hobbies)?</p> <p>A. Private lessons or courses (classroom instruction, lecture or a theoretical and practical course)</p> <p>B. Courses conducted</p>

		weeks?	education? B. Organized sessions for on-the-job training or training by supervisors or co-workers? C. Seminars or workshops? D. Courses or private lessons, not already reported?	through open and distance education C. Seminars or workshops D. Guided on the job training?
Informal	In < month and year > did you do any of the following learning activities? A. Visit trade fairs, professional conferences or congresses? B. Attend short lectures, seminars, workshops or special talks that were NOT part of a course? C. Read manuals, reference books, journals or other written materials but not as part of a course? D. Go on guided tours such as museums, art galleries, or other locations? E. Use computers or the Internet to learn but NOT as part of a course?	Participation in informal types of learning undertaken in last 12 months: A: Visit trade fairs, professional conferences or congresses? B: Attend short lectures, seminars, workshops or special talks that were not part of a course? C: Read manuals, reference books, journals or other written materials that were not part of a course? D: Go on guided tours such as museums, art galleries, or other locations? E: Use computers or the internet to learn but not as part of a course? F: Use video, television,		Other than the activities discussed earlier, have you deliberately tried since <<the beginning of the reference period of past 12 months>> to teach yourself anything at work or during your free time: A. by learning from a family member, friend or colleague? B. using printed material (books, professional magazines, etc.)? C. using computers (online or offline)? D. by guided tours of museums, historical/natural/industrial sites? E. by visiting learning centres (including libraries)?

F. Use video, television, tapes to learn but NOT as part of a course?

G. Learn by watching, getting help from or advice from others but NOT from course instructors?

H. Learn by yourself by trying things out, doing things for practice, trying different approaches to doing things?

I. Learn by being sent around an organization?

tapes to learn but not as part of a course?

G: Learn by watching, getting help from or advice from others but not from course instructors?

H: Learn by yourself by trying things out, doing things for practice, trying different approaches to doing things?

I: Learn by being sent around an organization?

Please list the 3 most important subjects you taught yourself using those informal learning methods?