Learning outcomes between learner centredness and institutionalisation of qualification frameworks

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Abstract

This article investigates what is claimed to be a shift towards national and European education systems based on Learning Outcomes (LO). We propose to delineate LO into three instruments (pedagogical, policy and organisational). When LO are related to a pedagogical debate, they can easily be positioned to constructivist learning theories in which the centredness of the learner is brought to the fore. This perspective is often emphasised by EU institutions and agencies when outlining implications for education and training practices. At the same time, LO are inscribed in a package of policies playing out at a national and cross-national level whose success lies in their political and organisational ramification. Of particular importance is how these policies change rules and procedures of educational institutions, notably curricula and the awarding of qualifications.

Within this picture of learner centredness and institutionalisation, LO in the existing literature are analysed as pedagogical and policy instruments. This article proposes to add a third perspective, that of considering LO as an organisational instrument. This implies studying the work organisation of educational institutions, as well as the bodies and agencies ('quangos') of importance for bringing about LO. Another aspect which the notion organisational instrument can shed light on is the continuing efforts to improve the performance of education systems by means of quality control and auditing procedures. The article concludes that policy-making for education and training will benefit from studies able to accurately determine the nature of the instruments deployed in the ongoing discourse on LO. Against this background, some implications for future studies and analyses in the field of education and training are drawn.

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Keywords

Introduction

Background

Our analysis of Learning Outcomes (LO) as a three-fold instrument concentrates on the definition of an educational agenda for imparting LO and qualification frameworks at a national and – notably – at a European level. Our emphasis on the European level leads us to concentrate the analysis on material from EU institutions and agencies.

As for other major reforms or campaigns to change the direction of educational systems, an understanding of their real novelty could lie in how they reformulate or adapt previously introduced ideas and practices. For example, UNESCO's humanistically inspired maxim of lifelong education from the 1970s was rediscovered 30 years later in EU policy-making for employability – but under the slightly revised maxim of lifelong learning (cf. Boshier, 1998; Field, 2006). In a similar line of thought, Lorenz Lassnigg (2012) pinpoints that the topic of LO is not as new as the ongoing European debate suggests. Hence, previous waves of debate in the USA, starting by the end of the 1960s, encountered issues similar to those now discussed in Europe. He i.a.supports this retrospective view by reporting a 'Pennsylvanian battle for student learning outcomes', from which Pliska and McQuaide (1994) has given an account of 'how a proposed shift towards learning outcomes was finally turned down in the political realm despite it having been thoroughly prepared and developed at the technical level' (Lassnigg, 2012: 303).

The official EU stance is that LO change the understanding of qualifications and degrees by linking them to the descriptors Knowledge–Skills–Competence. These descriptors are used for the eight levels on which the European Qualification Framework rests (EU's Official Journal, 2010). LO are meant to capture specific combinations of qualifications, including theoretical knowledge as well as practical and technical skills alongside social competences (cf. Dunkel and Le Mouillour, 2013). LO are also written in order to propose standards for qualifications, assessment standards and curricula (cf. Cedefop, 2013). As pointed out by Garcia Molina (2011), the European Union has started to deploy a 'package of community instruments' aiming at transparency in higher education (ECTS), in vocational and educational training (ECVET), through the European Common Principles for validation of non-formal and informal learning, the mobility instrument EUROPASS and ESCO (the European classification of Skills, Competences and Occupations).

The literature on LO has i.a. looked into the change and continuity that the so-called shift to LO (cf. Cedefop, 2009a) really represents. This is, for example, discussed in studies that investigate the pedagogical foundation of LO, notably by positioning them in relation to learning objectives or goals, or – generally speaking – the output from teaching and learning. This first strand of literature provides valuable insight into how LO intervene in teaching and learning practices. It informs our discussion below of how LO can be determined as a pedagogical instrument.

A second strand of literature looks at how the introduction of LO forms part of a political agenda, such as it is formulated at a national and cross-national level. This literature is accounted for below, notably the contributions from Arrowsmith et al. (2004), Borrás and Jacobsson (2004), Papadopoulos (2010) as well as Lægreid et al. (2011). A third strand of literature offers empirical investigations of how LO are introduced in the sectors of education and at various educational levels; see, for example, Caspersen et al. (2014), Dunkel (2012), Prøitz (2010) and Sweetman et al. (2014). Moreover, this literature often provides theoretical discussions of how LO function in each sector or at each level of education. The second and third strands of the literature, rich on institutional perspectives on educational systems, shed light on how LO can be understood as political and organisational instruments. We will use all three strands to inform the analysis below of LO seen as a three-fold instrument.

Methodological and empirical foundation

The article investigates the transformative role of LO and, thereby, how they appear as instruments in a discourse, which increasingly concentrates on what comes out of all resources and efforts put into education systems. This reflects ambitious political and pedagogical changes that may lead to significant transformations of educational institutions and organisations.

Some of the novelty of the ongoing discourse on LO is the simultaneous attempts by EU institutions and agencies to introduce LO at all educational levels, alongside their integration in qualification frameworks meant to underpin national and European education policy. Many of the mechanisms behind these attempts have been triggered by OECD's work on LO (cf. Nusche, 2008), the EU policy-making particularly scrutinised in this article, as well as by efforts of national governments to introduce LO in national curricula. Rather than finding out whether these processes were ignited at a certain point of time, it appears more fruitful to see if they mutually strengthen each other or, alternatively, point in opposite directions.

Seen together, all these processes suggest that LO as a three-fold instrument are inscribed in efforts to change or reform education and training systems. Yet, amidst these social structures, it seems important to remind oneself that LO are meant to intervene in learning practices. In spite of the multifaceted background of LO, their (potentially) transformative role lies in the fact that LO are intertwined in the art of teaching. However, the exercise of separating LO into three instruments is done for analytical purposes without the ambition to demonstrate how the three-fold instrument becomes manifest in concrete learning practices.

Empirically, the instruments for imparting LO will be scrutinised in documents and studies contracted and issued by the EU agency Cedefop (European Centre for the Development of Vocational Training), which basically assists EU institutions with analyses and policy advancement in the field of vocational and educational training. This documentation is presented in the list of references at the end of the article. In addition, we make use of material from Cedefop that can be found on the agency's website. This material is sometimes less elaborated than the referenced official publications but, still, very informative for our purpose.

Instruments to convey Learning Outcomes

In a demarcation of output from input regulations, Cedefop (2010) cites Stöbe-Blossey's *Handbuch zur Verwaltungsreform* (2001) in which she suggested that an input regulation

occurs primarily through regulative norms and the allocation of resources, while output regulation is primarily result-oriented and rests on assessments of achieved performances and products. Moreover, the EU agency refers to a trend towards 'output-based steering' in education and training systems in many European countries. This is said to be achieved by defining 'educational or occupational standards and curricula' based on LO, and by introducing 'performance-based funding mechanisms' (Cedefop, 2009b: 18). The term 'output-based steering' points at mechanisms to move education and training in a certain direction. Such mechanisms or instruments will be analysed below, while taking account of the two-fold definition of LO, i.a. proposed by Lassnigg (2012: 302). He regards LO as a combined pedagogical and policy instrument. Lassnigg links them to qualification frameworks and states that LO are meant to be feasible reform instruments that might change the relationships between actors, the system architecture and pedagogical practice (Lassnigg, 2012).

Lassnigg enlarges that 'at the aggregate level of policy and governance, [....] the main instrument is the use of learning or competence standards, which can be applied in different ways to guide teachers and institutions in directing their students towards specified outcomes' (2012: 313). LO regulate educational practices and serve as a policy instrument in the sense that both national and international regulations contain requirements intended to modify what Lassnigg calls an 'educational regime of input regulations'.

Albeit recognising the two-fold definition of LO i.a. proposed by Lassnigg, we suggest adding a third instrument with the aim to seize the variety of LO and the contexts in which they are introduced. The main research question that guides this article is whether the addition of a third instrument opens a theoretical space that can amplify our understanding of how LO influence education and training systems, as well as their implications for learning practices.

Pedagogical instrument

Souto-Otero (2012: 249) writes that much of the research on LO over the last 50 years has been on questions of pedagogy, while only a small proportion of the literature has tackled issues of policy and governance. In the capacity of pedagogical instrument within the discourse on LO, this instrument particularly touches on pedagogy and didactics.

When positioning LO, Cedefop (2010) goes through three pedagogical paradigms. The conclusion is that both behaviourist and cognitivist theories are governed by an objectivist view of knowledge, in the sense that learning objects exist independently of the learner's mind and of his or her individual constructions. The third paradigm, constructivism, promotes open-ended learning experiences where the methods and results of learning are not easily measured and may vary between learners. Constructivist learning activities and environments therefore need to be structured in a way allowing learners to create and control their own learning. With a view to match constructivist learning theories, the outcomes should follow a holistic, generalising concept of competence. The perspective remains that of the individual and his or her personality and capabilities. Hence, the outcomes of a learning process cannot be prescribed because they are constructed in the learner's mind according to his or her individuality. The discussion of pedagogical paradigms in the Cedefop report therefore concludes that the suitability of constructivist learning theories for the planning of learning processes is limited (Cedefop, 2010: 42).

A frequently cited contributor to the pedagogical grounding of LO is John Biggs. He i.a. proposes a model of 'constructive alignment', which implies that both planning and

implementation of teaching is understood as construction and mindful participation in learning activities. Biggs searches for 'a working version of constructivism' by integrating it with instructional design at three crucial points (Biggs, 1996: 361). In a more recent work, Biggs (2012: 43) emphasises that LO are determined by a whole complex of factors related to the students and curricula as well as teaching and assessment methods. He holds that all these factors affect each other, thus forming an interactive system or an eco-system where the components do not act separately or additively (ibid.) At this analytical level, the complexity of LO and the need to consider them as a whole is widely shared. Also the Cedefop report announcing a shift to LO recognises that broadly defined and holistic LO are pivotal when crafting a new approach to teaching and learning (Cedefop, 2009a: 39).

A proclaimed need to capture the unpredictable and unstable dimensions of LO appears more contested. The cited Cedefop report tends to prescribe this instability to learners' ability to tackle such a condition in the aftermath of a learning process, while teachers' freedom to adjust and adapt learning practices tends to be emphasised in the pedagogical literature. This instability is a central point in attempts to discern LO (cf. Hussey and Smith, 2008: 108). As we will enlarge on below, the unstable dimensions of LO could refer to Dewey's theorisation of educational aims; notably how to revise an original aim in order to cater for changes during the learning process (cf. Dewey, 1916/1985: 111ff.).

In the same vein, Vidar Gynnild (2011) i.a. cites Jane Davidsson (2000) who opinions that unintended outcomes are just as important to track down as goal-related outcomes. The argument is that a programme model generated from programme goals inevitably focuses on intended outcomes, leading to a considerable danger of failing to include important potential side effects as variables in the model. Gynnild qualifies that an input/output model with a clear-cut division between learning objectives and LO appears simplistic. He argues that if the term 'learning objective' is interchanged with 'intended learning results/outcomes', only the 'intended learning outcomes' of curriculum design is featured. Instead, learning objectives could be used as an everyday notion of 'expected learning results (outcomes)' (ibid.).

Moreover, the literature on the pedagogical foundation of LO tends to discern the very notion on several types of education. Consequently, James and Brown (2005: 10f.) identify seven categories of LO, ranging from mastery of specific rules associated with particular tasks to higher-order learning, including metacognition. Furthermore, an overview provided by Hussey and Smith (2008: 114) refers to a frequent classification of LO according to the various constituencies of interest. Examples are students, teachers, managers and the community. This leads to the statement that – 'for good educational reasons' – LO should be flexible and provisional so that various emergent outcomes might be tolerated or encouraged in their stead (ibid.).

To further understand this statement, it is adequate to look at how Hussey and Smith (2003) choose to characterise LO, namely according to the 'unit of activity' that can vary from a stand-alone seminar to a whole degree programme. Against this background, their conclusion reads:

> Learning outcomes used in individual teaching events (1) are the most useful kind if employed flexibly, but they cannot be specified exactly or used for auditing performance, and their relationship with assessment is complex. Learning outcomes specified for modules or short courses (2) state little more than a list of contents; they cannot be stated precisely and have limitations in

guiding assessment. Learning outcomes specified for whole degree programmes (3) is a misuse of the term 'learning outcome' (Hussey and Smith, 2008: 107).

As pointed out by Biggs (2012: 43), LO are aligned with methods of teaching and assessment. Cedefop (2012a) follows up this point and holds that the shift to a LO approach has major implications on assessment. Although the EU agency observes new and innovative approaches to assessment in some EU countries, the alignment of assessment practices with intended LO is said to remain a significant challenge in most countries.

Biggs also proposes to link LO to curriculum development. The importance of both entrance points is underlined in the Cedefop documents under scrutiny in the present article and the EU agency is eager to link the EU policy for LO to teaching practices. When considering LO as a pedagogical instrument, the burning question has therefore more to do with how this alignment in done. This brings us to empirical investigations of the introduction of LO in various scientific disciplines and sectors of education. For example an investigation concentrating on their introduction in higher education, allows Prøitz (2010) to conclude that LO cannot be reduced to full-ended, stable and pre-specified measurements of student performance. Moreover, Sweetman et al. (2014), who like Hussey and Smith (2003) mainly observed LO in higher education, propose to pay more attention to the 'potential influence of disciplinary and national features' when LO are used to compare generic competencies. They claim that the advanced skills which graduates are expected to possess may be complex, unstable and culturally determined. These attributes reduce the likelihood that LO 'can be flexible and neutral enough to allow [for] a wide-ranging and robust comparison of higher education outputs' (Sweetman et al., 2014: 190).

Not only practitioners in the field of pedagogy issue warnings that narrow descriptions of LO could pave the way for an entrenched understanding of knowledge and how it develops. Several papers and reports from Cedefop follow up observations of the multifaceted nature of LO. There is concern that LO used as a pedagogical instrument either can open up and enlarge learning, or in the worst case, narrow the learning experiences (Cedefop, 2010: 42). Overall, the EU policy for imparting LO does not disregard their pedagogical and didactical foundation but tries to build on it, with the aim to introduce a strong cross-national dimension through the underlying European Qualification Framework, composed of the descriptors Knowledge–Skills–Competence unfolding on eight levels. Yet, the degree to which this contributes to creating a 'holistic and autonomous learner' is contested. This contestation is clearly demonstrated in the literature on EU governance in matters of education and training (cf. Ure, 2015). One reason for this is that the EU policy for LO is seen as a political intervention in a discipline, notably that of pedagogics and didactics, as well as in teaching practices.

Along this line of thought, Harald Jarning (2013) uses the preliminary label 'remote didactics' to characterise cross-national regulations of education and curricula leaving little leeway for adaptation to conditions around which local learning practices are developed. The danger of fabricating LO remote from learning needs is also addressed by Hussey and Smith (2008: 114) whose maxim is that the further away from students and the teacher in a classroom, the more remote, generalised and irrelevant statements of LO become.

Jarning (2013) further claims that 'the web of European and national qualification frameworks' surrounding LO represents an 'undetermined and opaque framing' of curriculum traditions on which several educational trajectories build. This opaqueness is primarily acute as to the concrete implications for teaching practices of the Learning Outcomes approach,

whereas the leeway for developing learning trajectories adapted to local variations remains unclear (ibid). The introduction of LO could therefore be criticised for not sufficiently catering for a feedback loop accruing from learning experiences. This criticism coincides with the identification of the unstable dimensions of LO, which calls for continuing revisions and adaptations. This is i.a. emphasised by Husey and Smith (2008) in their presentation of unpredicted and undesirable LO (see above).

We therefore see that a discussion of the implications of applying LO as a pedagogical tool leads to considerations on how the educational sector is governed, thereby calling on LO as a policy instrument, which is the subject of the next section of the article.

Policy instrument

The EU discourse on LO affects and is affected by processes at a political level, consisting of national and international institutions from which political signals are transmitted. In our case, these institutions primarily belong to the education and training system, which is increasingly structured by qualification frameworks built on, exactly, LO descriptors. Hence, LO appear as one form of regulation of the education sector. Fátima Antunes (2012: 450) consequently describes educational models in Europe, which i.a. contain 'regulatory frameworks' based on 'political-technical instruments', exemplified by qualification frameworks, credit transfer and accumulation systems, alongside quality assurance systems.

Processes in the political apparatus of a national educational system lead to policy instruments – for example, LO that are actively promoted because of their close integration in qualification frameworks influencing national curricula and assessment practices. The existence of national qualification frameworks, including their European umbrella EQF, shows that LO as a policy instrument plays out at both a national and a cross-national level. It follows from this that a theorisation of such a policy instrument needs to draw on theories covering the entire row of administrative levels sustaining the 'consensus-building agreements', which Cedefop – and other EU agencies – are promoting.

The strand of thought addressing supranational governance seems apt for capturing the European and cross-national efforts to impart LO, notably linked to qualification frameworks, including how these are meant to interact with EU policy instruments in higher education (ECTS: European Credit Transfer System) and vocational education (ECVET: European Credit system for Vocational Education and Training). Within this strand, Papadopoulos (2010) suggests that traditional regulatory instruments, particularly found at a national level, today coexist or compete to a varying degree with newer co-operative or voluntary instruments. The new soft 'governance instruments', exemplified by the Open Method of policy Coordination (OMC), accentuate the transnational dimension of European integration. In other words, these instruments 'convey further dynamism to the forms and contents of cross-border interactions in the EU at all levels' (Borrás and Jacobsson, 2004).

Torsten Dunkel (2012), while leaning on works of CM Radaelli, advances that European policy convergence 'includes a range of "hard" and "soft' versions of persuasion through "peer learning activities" and the comparison of countries' performance against benchmarks and indicators' (2012: 223). In that context, policy learning takes the form of 'peer learning' or 'mutual policy learning' between EU Member States (ibid.).

Arrowsmith et al. (2004) identify 'regulated self-regulation', while relying on 'the elaboration of customized local solutions within a guiding framework of principles and a process

of monitoring and review'. Below this supranational level of EU policy-making, the administration of a national education system is composed of agencies with regulatory or public authority tasks; for example, accreditation bodies that increasingly interact with the co-operative or voluntary instruments forming part of the OMC in matters of education (cf. the EU agenda Education and Training 2020[1]).

For analyses of policy processes at a national level, also in the field of education, including how frameworks for LO are crafted and disseminated, one relevant theoretical strand, i.a. utilised by Michelsen et al. (2016), is inspired from Schneider and Ingram (1990)' who cluster policy tools[2] based on their underlying motivational strategies. The authors distinguish five types of instruments or tools: authority tools, incentive tools, capacity tools, hortatory and symbolic tools, as well as learning tools. The latter type is closely related to an analysis of LO as a policy instrument because 'learning tools', in the understanding of Schneider and Ingram, are used when the basis for problem-solving action towards a target population is unknown or uncertain. This is the case when the introduction of LO is proposed as a (partial) solution to numerous shortcomings listed on the national or European agenda for education and training.

Michelsen et al. (ibid.) underscore that learning tools are quite tightly related to a 'New Public Management (NPM) ideology', notably the idea that target groups can learn from experience by means of mechanisms like evaluation, quality assurance, reporting and accounting. In the same register, by taking VET curricula as a point of departure, one Cedefop study on VET curricula explicitly refers to new trends of public management and governance of Vocational Education and Training, which are said to engender curriculum reforms (Cedefop, 2010: 44).

Hence, the policy of imparting LO can be further investigated by looking at how these outcomes are aligned with administrative regimes, such as NPM and Management-By-Objective (MBO) theories, and later modulated in line with the autonomy of schools at various levels of a national education system, cf. the notion post-NPM (Lægreid et al., 2011). Various (semi-) public agencies (often called 'quangos'), more or less linked to a national education system, are mobilised for imparting LO. These are normally agencies with regulatory or public authority tasks, and thus are different from service delivery agencies that often directly interact with 'customers', like citizens and private organisations (ibid.). Among the former category count agencies that concentrate more on the correct implementation of regulations, on due process and on compliance by private actors than on the needs of their 'customers'.

Against the background of variations in administrative structures, such as the rise and fall of agencies sustaining different policy instruments, an analysis of policy instruments for imparting LO needs to look at them over a certain time span. Equally, attempts to situate the introduction of LO in administrative cultures with a view to better understand or sharpen LO as a policy instrument, should refrain from heralding LO as a novelty in a maelstrom of (post-)modernity, which stem from NPM or general perceptions of globalisation of competencies and a consequent need to line them up in frameworks, like NQFs and the EQF. Instead, the conflicting features of policy instruments call for fine-tuned analyses.

LO considered as a policy instrument also refers to the justification of a political intervention in a societal sector, in our case that of education and training, as well as in disciplines that constitute the knowledge base of the sector under scrutiny. One justification for such interventions is found in EU documents that increasingly centre on a pressing need to liaise the performance of educational systems with access to jobs for large cohorts of young

EU citizens. This reasoning can i.a. be found in a 2012 Communication issued by the European Commission to EU institutions (European Commission, 2012: 7).

The political regulation of LO lean on international declarations around commonly agreed policy goals, such as the 1999 Bologna declaration on higher education and the 'Copenhagen Declaration on enhanced European cooperation in vocational education and training', which was signed in 2002. No legal sanctions are attached to these joint declarations between governments. Hence, the declarations differ from authority tools (cf. Schneider and Ingram, 1990). They are instead upheld by 'soft law' exercised through benchmarks and indicators (cf. Lange and Alexiadou, 2007). Moreover, the mutual policy learning and exchange of experiences across countries (cf. the reference to Dunkel above) seems to increasingly take place after the adoptions of these conventions in order to facilitate their implementation.

Particularly in view of the very different reporting from national governments on benchmarks and indicators of LO (cf. Ure, 2015), it is worth asking if these differences could primarily stem from a fragmented administrative infrastructure being mobilised for disseminating LO. This question alludes to a classical debate about the borders of an organisation, in this case what is the formal (public) organisation that rallies behind a proclaimed shift to LO, which is aligned with qualification frameworks. The next section therefore looks at LO as an organisational instrument.

Organisational instrument

Political processes captured by LO seen as a policy instrument reveal continuing efforts to improve the performance of the education and training system as a whole. The ensuing repercussions on organisations belonging to this system point at more internal processes than usually alluded to by the notion 'policy instrument'. In order to supplement the analysis of LO, we therefore propose the notion 'organisational instrument'.

In the view of Prøitz (2010), the dominant scholar debate on LO centres on whether they can and should be stated in full-ended, stable, pre-specified and measurable terms; or in open-ended, flexible terms with limited opportunities for measurement. In the present article, we assume that some of the leeway for shaping LO is reflected at the intersection between the 'full-ended' and 'open-ended' terms. This refers to the internal processes in education institutions involved in adapting and implementing LO, such as schools and training providers. In addition, the organisational instrument seizes internal processes in administrative bodies or agencies of importance for steering and managing the educational system. Such a management dimension embraces how the rise of new modes of quality control, along with the introduction of more checks and audits, appraisal and accountability, jointly affect the competence profile of the staff employed in these organisations. This could i.a. enlarge on the regulatory and judicial tasks carried out by the staff in various public organisations in charge of imparting LO (cf. the presentation of LO as a policy instrument above).

Halász (2017: 85) advances that the use of the LO approach as an innovation can be easily included in various classifications of public sector or educational innovations. He adds that this form of innovation belongs to what the literature on general or public sector innovation considers as 'process innovation', 'delivery innovation' or 'administrative and organisational innovation'. Provided that LO exemplify an innovation in education, to what

extent can they be seen as an organisational innovation thereby illustrating our heuristic notion 'organisational instrument'?

Available literature sheds more light on the introduction of LO linked to processes in education institutions (i.e. schools and training providers), as well as processes in administrative bodies or agencies of importance for steering and managing the educational system. This aspect of LO as an organisational instrument leads to a discussion of the occupations and professions to which the staff of these educational institutions and bodies belong. Both aspects are discussed below, and we start out by the organisational instrument while centring on schools and training providers. One example from a report issued by Cedefop (2010: 92) could illustrate this instrument. The 2010 Cedefop report in question refers to the Lernfeldkonzept[3] (concept of learning fields) introduced in German vocational and educational training in 1996, which influenced curriculum development and the role of teachers and schools. By using outcome-oriented descriptions of what the learner should achieve in each Lernfeld, the cited report holds that workable aims and operational contents for teaching are developed in vocational schools.

According to Spöttl and Windelband (2013: 23), learning fields were introduced to assist in shaping and structuring the curricula of vocational schools by linking learning processes to occupational tasks and work processes. According to these two authors, the role of teachers is thereby modified because they become more engaged in translating curricula into learning programmes and other learning arrangements. Second, the internal organisation of schools is being transformed, whereas teachers increasingly co-operate in teams set up for developing schedules and lesson plans to meet the curricular guidelines. The more complex tasks that teachers thereby fulfil tend to widen their range of responsibilities and, on a voluntary basis, they are therefore offered in-service training (Cedefop, 2010: 92).

On the last aspect, Spöttl and Windelband amplify in the following manner (2013: 24):

> The introduction of curricula based on learning fields led to a massive challenge for the vocational schools and in particular for their teaching staff. Above all the teachers were only inappropriately prepared for teaching in accordance with a learning field. Only intensive further training of the teachers helped in the meantime to stabilize the learning-field approach in the schools.

The latter observation brings us to the second aspect of LO evoked above, namely the occupations and professions to which the staff of educational institutions and bodies belong. Among the authors having discussed how LO may contribute to the foundation of a discipline or a profession, Caspersen et al. (2017) analyse how LO in higher education align with, challenge or change values, norms and standards in a given discipline, subject area or profession. Based on a cross-country comparison of LO in humanities, medicine and engineering, the authors hold that LO are linked to the specific professional and organisational patterns that are developed in particular institutions with distinct histories. Hence, fields where a greater number of paradigms thrive – typically, the social sciences and humanities – tend to produce greater variety of LO. The authors admit, however, that further empirical research is needed to explore whether stated LO 'invariably do show specific characteristics depending on whether they are for science, the humanities, or social science' (ibid.: 13).

If we look closer into professions or occupations in schools and educational bodies or agencies, important contributions are found in Julia Evetts (2003, 2011). She notably

analysed how further and continuing training is intertwined with occupational and professional control mechanisms, alongside self-regulation and professional or occupational autonomy. Schools and training institutions are staffed with professions and occupations built around academic disciplines and the knowledge on which these are founded. This i.a. raises the question of teachers' discretionary control of their professional knowledge. In the same vain and applied to higher education, Michelsen et al. (2017) found that the more generic the descriptive LO are, the wider the discretionary latitude becomes, the greater the potential for stakeholder variance and the greater the probability that learners' outcomes will differ across contexts. The authors maintain that this variance is produced by real differences in the disciplinary and epistemic features of various stakeholder communities, on the one hand, and by real differences between institutional types and cultures on the other hand (ibid.).

The point that LO cannot be disentangled from the construction or consolidation of a discipline or a profession is further elucidated by Spöttl and Windelband (2013: 23f.) in their account of learning fields that were introduced in order to maintain high standards in the German dual system of vocational training. This was done by replacing a school subject-orientation of didactics; in other words, a pedagogical instrument to follow up the terminology used above. On this point, we therefore witness the relationship between pedagogical and organisational instruments. Spöttl and Windelband (2013: 23f.) further write that the new orientation of occupational profiles at work and in business processes necessitated a redesign of the subject-orientated structure of vocational curricula. Furthermore, this redesign introduced clear links to work processes and to knowledge about these in the curricula. On this point, the two authors enlarge by stating that:

> this brought about a striking change in paradigm that not only resulted in a departure from a subject and science-orientated system of didactics, but also in the need to work out, on the basis of developmental theory, a new system of vocational didactics for conveying practical skills. (ibid.)

What Spöttl and Windelband observe as a move away from a 'subject and science-orientated system of didactics' can be aligned with a paradigmatic change in disciplines (cf. LO as a pedagogical instrument), but with repercussions for the overall direction of science. On this point, we therefore see certain correspondence with the long-term societal processes theorised by Nowotny et al. (2001, 2003) and Gibbons et al. (1994) in their works on knowledge production under modernity. These authors notably refer to less control of occupations and professions; in other words, less disciplinary steering of knowledge production with a stronger say of research laboratories as well as (semi-autonomous) institutions partly decoupled from traditional universities, and equally stronger influence exercised by think-tanks, consultancy firms and a public bureaucracy leaning less on long-established academic institutions (ibid.). Applied to the present attempts to link LO to educational standards, this 'mode of knowledge production' complies with what Noordegraaf (2011) determines as 'professional compliance with external scrutiny through the display of standards'.

Overall, the term 'organisational instrument' specifies the characteristics of LO as a policy instrument in the meaning that the former instrument depicts the education and training system composed of schools and various administrative bodies for steering and management. The occupations and professions staffing these schools and bodies are pivotal for the interpretation and implementation of LO defined at higher administrative levels.

Thus, in his article i.a. addressing this mitigation between levels of implementation of LO, Halász (2017: 89)concludes that after focusing on the micro level, the study he carried out for the EU agency Cedefop confirmed that macro-level regulations or declared institutional level policies did not lead to real implementation. For that to happen, the regulations need to be accompanied by substantial changes in the daily behaviour of individuals and institutions (ibid.).

In sum, although the attempt to consider LO as an organisational instrument encounters some overlapping with the delineation of LO as a pedagogical and policy instrument, it appears fruitful to add this third instrument. The organisational instrument is less aligned with individual learning practices than when looking at LO as a pedagogical instrument. And compared with the policy instrument, LO seen as an organisational instrument are less marked by broad political processes at a macro level. All three instruments are abstractions of processes emanating from the definition, implementation and dissemination of LO in education and training systems. Hence, the exercise of separating the instruments is done for analytical purposes with the aim to better capture implications of LO for learning and teaching practices.

Theoretical and methodological implications

Learning Outcomes: the muddling-through of loose instruments

The multifunctional use of LO in EU policy-making shapes them as a combination of policy, organisational and pedagogical instruments. LO are in many ways a junction in the construction and implementation of qualification frameworks at all educational levels and across borders (cf. Ure, 2015). This framing reflects the very high ambition behind the proclaimed shift to gear the education system towards a regime of LO, in which they percolate into curricula as well as competence and occupational standards.

One advantage of considering LO as a three-fold instrument is that they can be analysed simultaneously from their internal constituency (LO as a pedagogical instrument embedded in learning practices and pedagogics as a discipline), as well as from their external constituency (LO as a political and organisational instrument). When analysing LO as a pedagogical tool, their learner centredness is advanced in the most important documents that uphold the EU discourse on LO. The same EU documents underscore that LO are key ingredients in an institutionalisation of qualification frameworks with potentially major implications for learning practices. In this way, the three instruments related to LO could mutually strengthen each other.

An institutional perspective on education and training is often inspired by political sciences and sociology (cf. Thelen, 2004: Busemeyer and Trampusch, 2012) as well as economics (cf. the so-called 'regulation school'), in addition to the intertwinement of both traditions (e.g. Maroy and Doray, 2004). This perspective can be exemplified by analyses of political–administrative traditions in national education and training systems, i.a. suggested by Michelsen et al. (2016). In their analysis, the implementation of a policy instrument implies a process of shaping and institutionalisation. Hence, Michelsen et al. regard LO as part of administrative and organisational routines and practices of how study programmes are presented, organised and led. The authors underline that LO are adapted and adaptable, thus interacting with other instruments.

Along this line of thought, political signals either produce new instruments or modify already existing ones, which again engender new organisational forms. Thereby, political and organisational instruments are twisted in a manner also affecting LO seen as a pedagogical instrument. And the differentiation between political and organisational instruments of LO is less requisited because they appear as two sides of the same (intertwined) instrument. An institutional perspective implies that the education sector is characterised by (continuing) arbitration mechanisms, notably between 1) pedagogics as a discipline, 2) education as a social field of learning practices and 3) the surrounding political–institutional environments.

In the end, whether the framing of learning practices by means of descriptors for LO is beneficial for the learning activities, or rather impose a straightjacket on them, is an empirical question. Yet, the required abstractions needed in a theoretical framework for delineating LO into various instruments will help in this empirical investigation. So far, the evaluations of how LO are being introduced offer limited evidence of how this shift may affect learning practices in a longer run. Results from the preliminary stocktaking of how LO are introduced suggest that their basic ingredients are not modified by the national or European contexts where LO are deployed. Instead, what basically varies is how these instruments interact with national reform agendas and administrative traditions in each country (cf. Michelsen et al., 2016).

Moreover, evaluations of how LO are imparted reveal a large variety of approaches for applying LO in national qualification frameworks, including what EU Member States interpret as LO on their national territories (cf. Ure, 2015). This is supported by observations on LO in higher education (e.g. Sweetman et al., 2014). Overall, the reporting on how curricula are built up around LO seems to be carried out in a pragmatic manner, resulting in quite liberal interpretations of what is subsumed under this term. This pattern sheds light on another question which guides our article, namely whether the simultaneous attempts by EU institutions and agencies as well as national governments to impart LO mutually strengthen each other or, alternatively, point in opposite directions. Although this simultaneousness bears sign of a reform agenda jointly shared by EU institutions and national governments, the multitude of reported variations and adaptations when introducing outcome considerations points at a process of muddling-through (cf. Lindblom, 1979; Bendor, 1995), during which LO are referred to in a loose manner and EU the policy objectives are implemented very incrementally.

This picture underlines that LO are inscribed in the Open Method of Policy Co-ordination, which is flexible, relying on 'soft law' as well as benchmarks and indicators (cf. Lange and Alexiadou, 2007). Hence, no legal sanctions are attached to joint declarations between governments; for example, the Bologna declaration on higher education from 1999 and the 'Copenhagen Declaration on enhanced European cooperation in vocational education and training', which was signed in 2002. Likewise, if an EU Member State makes slow progress in introducing LO, this belatedness does not trigger any EU sanctions but is supposed to spark debate at national level on why the country in question scores lower than fellow Member States.

Further investigations of Learning Outcomes

For the further methodological and theoretical elaboration of LO with the aim to understand how 'the LO approach' influences learning practices, we suggest two somewhat overlapping avenues. The first one could critically look into the preliminary stocktaking of how LO are introduced. Evaluations commissioned by Cedefop suggest that LO may be more

harmonised in VET than in higher education. Likewise, applied sciences could be more influenced by the shift to LO than the basic sciences (cf. Cedefop, 2009a). As part of this suggested work, so far stumbling because LO linked to qualification frameworks are still a fairly new area of investigation, there could be a follow-up of previous studies accounting for the introduction and implementation of LO in each sector of education. As pointed out by Michelsen et al. (2017), the nature of the institutions in each sector of education differs considerably. Higher education institutions are, for example, penetrated by specific political and administrative systems and traditions, structuring perceptions policies, problems and solutions. On the other hand, VET institutions can be characterised by systematic exchanges between vocational schools and the labour market (cf. Busemeyer and Trampusch, 2012), as well as co-operative bodies between employers' and employees' organisations whose decision-making power is exercised on the fringe of public authorities. One example of the latter is apprenticeship schemes receiving public subsidies but being jointly run by the social partners. These variances for example engender differences in how LO reflect expectations about accountability towards external actors and agencies (cf. VET labour market stakeholders vs academic peer procedures in higher education institutions).

   Such follow-up studies could pave the way for the second avenue of methodological and theoretical elaboration of LO, because it could gear the stocktaking in a direction that systematically harvests from classifications of national and cross-national systems exposed to or marked by LO. One example is the classification of national VET and higher education systems according to skill regimes (cf. Thelen, 2004; Busemeyer and Trampusch, 2012) and – more specifically – skill formation embracing education and labour market systems as well as characteristics of welfare state regimes (cf. Saar and Ure, 2013).

   Another example, of use when analysing patterns of teacher training offered as a response to LO, is the seven types of formal adult education and their organisational fields proposed in Hefler (2013). The application of Hefler's typologization could, for example, elucidate whether teachers' training is being transformed during the introduction and implementation of LO (cf. the citations above from Spöttl and Windelband, 2013 and Cedefop, 2010: 92).

   This sort of analysis could be supplemented by more experimental exercises, whereby the number of instruments drawn into studies of LO could depend on the precise perspective and chosen complexity of each study that will be launched. With growing insight into mechanisms and instruments behind the imparting of LO, they would be better grounded and could thereby frame or modify plans to develop 'a European Inventory on learning outcomes' (Cedefop, 2014: 6). This inventory is supposed to contain samples of LO descriptors, while being supported by a recently published European handbook (cf. Cedefop, 2017). A major challenge revealed in this handbook is to adapt the discourse on LO to learning practices so that the discourse does not derail into a steady stream of macro-level EU policy considerations. And for the planned inventory, as for other European inventories or even scoreboards aimed at measuring progress towards politically formulated goals, such a new inventory needs cautious elaboration to avert incantations.

Declaration of conflicting interests

Notes

1. 'Education and Training 2020' (ET 2020) is a new strategic framework for European cooperation in education and training that builds on its predecessor, the 'Education and Training 2010' (ET 2010) work programme. It provides common strategic objectives for Member States, including a set of principles for achieving these objectives, as well as common working methods with priority areas for each periodic work cycle. http://ec.europa.eu/education/policy/strategic-framework/index_en.htm
2. The term is interchanged with *policy instruments*.
3. It should be noted that the 'Kompetenzen' derived from the German meaning of a 'learning field' do not correspond directly with the triad Knowledge–Skills–Competences of the European Qualifications Framework (see www.kmk.org, Kultusministerkonferenz – KMK (2000): Handreichungen für die Erarbeitung von Rahmenlehrplänen der Kultusministerkonferenz (KMK) für den berufsbezogenen Unterricht in der Berufsschule und ihre Abstimmung mit Ausbildungsordnungen des Bundes für anerkannte Ausbildungsberufe. Bonn: KMK).

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