

## **OPEN PEDAGOGY:**

# A DRIVING FORCE FOR MEANINGFUL LEARNING

Marijn Post, Michiel de Jong, Marjon Baas, Ria Jacobi

## TABLE OF CONTENTS

Int	troduction: learning in a changing world  Cross-boundary learning  Open Education: creating and sharing knowledge  Open Pedagogy as a framework  How Open Education makes learning meaningful	3 3 2 2
1.	What is meaningful learning?	5
	The five characteristics of meaningful learning	Ę
2.	The value of Open Education and Open Pedagogy	7
	Student learning value	7
	Open Pedagogy: a relatively new concept	7
	Open Pedagogy Framework 2.0	8
3.	Open Pedagogy and meaningful learning	10
	Active and participatory role of students	10
	Link between framework and meaningful learning	10
4.	Open Pedagogy in instructional design: practical aspects	12
	Entire framework or a single characteristic	12
	Division of roles between lecturer and student	12
	Certain attitudes and competencies are required	13
	Introduction according to the scaffolding principle	13
	Conclusion and core	14
	The student as a partner	14
	Not a goal but an incentive	14
	Step by step	14
	Creating meaning and impact	14
Co	olophon	15

## LEARNING IN A CHANGING WORLD

The world around us is changing rapidly, not least as a result of the digital transformation of society. Societal transitions in turn demand transformations in education. Every higher education institution is therefore devoting time and effort to themes such as flexibility of education, lifelong learning, digital transformation and cooperation with the professional field.<sup>1,2</sup>. Within these transformations, however, we see shift in emphasis as students are enjoying greater opportunities to adopt an active, engaged and responsible role in their own learning<sup>3</sup>. The following shifts are visible:

- from lecturer-centred teaching to student-oriented learning<sup>4</sup>. The lecturer no longer
  prepares a curriculum that students follow, but students themselves take responsibility
  for their own learning pathway. The lecturer's role becomes much more that of a coach
  and supervisor. Higher education themes such as learning outcomes, micro-credentialing,
  development-oriented/programmatic assessment, and flexible education are all in line
  with this.
- from the knowledge acquisition by the student to knowledge creation. Students not
  only 'consume' existing knowledge, but also collaborate with lecturers in the creation of
  items, products, or knowledge. Students learn to share their own knowledge items, to
  take responsibility for their own learning, and to actively contribute to the learning experience (Werth & Williams, 2022). Students play an active role in knowledge development.
  Higher education themes such as collaborative and constructive learning fit in with this.
- from supply-driven education to education in which students gain authentic learning experiences. Education is no longer designed around the available educational literature, but rather around social themes or technological developments. Students gain learning experience in practice-based contexts. This includes higher education themes such as problem-based learning, living labs, innovative learning, contextual learning and learning and working in a community, design-based learning and research<sup>5</sup>.

#### **Cross-boundary learning**

This shift goes hand in hand with a change in the learning environment of students. Students no longer learn on the campus alone, but also in all kinds of interrelated contexts. Society, the professional field, and online platforms serve as fully-fledged learning environments in their own right<sup>6</sup>. This expansion of the learning environment is known as cross-boundary learning<sup>7</sup>. Students gain meaningful learning experiences during their learning process, across traditional boundaries, and in different contexts. These experiences, including the conscious and unconscious choices that go with them, have personal meaning and impact: the core of meaningful learning.

Acceleration Plan, 2022: https://www.versnellingsplan.nl/wp-content/uploads/2022/01/Transitieagenda-leren-digitaliseren.pdf

<sup>&</sup>lt;sup>2</sup> HR, 2020: https://www.hogeschoolrotterdam.nl/onderzoek/hoger-beroepsonderwijs-in-2030/

Jochy & Segers, 2020: https://www.boomhogeronderwijs.nl/product/100-9221\_Bouwstenen-voor-High-Impact-Learning-tweede-druk

<sup>4</sup> Rathenau instituut, 2019: https://www.rathenau.nl/nl/terugblik/hoe-maken-we-ons-hoger-onderwijstoekomstbestendig

For example https://www.inholland.nl/onderzoek/lectoraten/societal-impact-design/

<sup>6</sup> HAN, 2022: https://blog3.han.nl/hanicto/de-han-kiest-voor-blended-leren/

Bos, 2022: https://www.inholland.nl/media/dztd1mru/lectorale-rede-nynke-bos-inh-rn\_digitaal.pdf

#### Open Education: creating and sharing knowledge

A development that has many touchpoints in common with these shifts in emphasis in education is Open Education. Open Education is a global movement that strives towards a society in which people create, share, and build upon existing knowledge and then share and reshare it openly<sup>8,9</sup>. A critical success factor for the application of Open Education is the active participation of students in the knowledge development process during their studies. This active participation has various forms, and these all come together in the Open Pedagogy educational framework.

#### Open Pedagogy as a framework

Open Pedagogy is a collection of characteristic activities related to working in open networks and the use of open educational resources where the student has a central role in assessing, creating and sharing information<sup>10</sup>. As students engage in open networks and work with open educational resources, their contribution to the knowledge landscape becomes much more transparent, they gain greater ownership of the outcomes of their learning, and the impact of their work is more visible. Thanks to Open Pedagogy, students gain the knowledge and skills they need to participate successfully in society during their studies. This encourages an open culture in which continuous knowledge development and knowledge sharing are experienced as the norm<sup>11</sup>.

#### How Open Education makes learning meaningful

In this article, we show how the concepts of Open Education and Open Pedagogy make learning more meaningful. We argue that the application of meaningful learning is essential in light of current developments in higher education. We do this based on a deepening of the concept of meaningful learning (Chapter 1) and the concepts of Open Education and Open Pedagogy (Chapter 2). We then go on to show how Open Pedagogy contributes to meaningful learning (Chapter 3) and how this can then be applied in the education process (Chapter 4). We illustrate this with a number of examples of the application of Open Pedagogy in the Netherlands.

<sup>8</sup> UNESCO, n.d.: https://www.unesco.org/en/communication-information/open-solutions/open-educational-resources of

Inamorato dos Santos, 2016: https://op.europa.eu/en/publication-detail/-/publication/c52b6cab-a82c-4e75-8420-d2431196d11d/language-en

SIG Open Education, 2019: https://communities.surf.nl/digitaal-toetsen/artikel/er-is-meer-open-pedagogy-dan-je-denkt

McAndrew interview: https://www.youtube.com/watch?v=cFt-uVe14Sw

#### 1. WHAT IS MEANINGFUL LEARNING?

Meaningful learning is described as true, human learning in which the knowledge offered is closely related to the world experienced by the learner. Learners can apply the knowledge they have acquired directly in new contexts. By linking learning activities to the learner's experiential world, context and interests, the goal of learning becomes clearer, there is more interaction and the learner's engagement and motivation grows<sup>12,13</sup>. The characteristics of meaningful learning form the basis for a blended instructional design<sup>14</sup>. In the design, one of the choices made by the lecturer relates to the learning activities. The learning activities are coordinated and related to a (self-)established learning objective and learning outcome (constructive alignment). The learning activities do not automatically lead to students experiencing impact. This will only happen if the students themselves can assign meaning. Learning has meaning if there is an opportunity to apply the experienced knowledge, skills and attitudes appropriately in different situations (also called transfer of knowledge)<sup>15</sup> or if the student assigns some personal or collective value to the newly acquired knowledge. This creates ownership and a strong personal connection that, in turn, creates in-depth learning <sup>16</sup>. Meaningful learning focuses on a directly applicable learning experience with value for both the individual and the group, and will appeal to the autonomous motivation of the learner<sup>17</sup>.

#### The five characteristics of meaningful learning

Meaningful learning can be described based on five specific characteristics<sup>18,19</sup>. Table 1 sets out these five characteristics, along with examples of possible learning activities.

An additional effect is that we know that students who are actively involved, learning in a connected way, can identify with what they have learned, find meaning in what they do, and feel the impact of the results they produce. This has a positive effect on study performance<sup>20</sup>, study success<sup>21</sup>, student well-being<sup>22</sup> and study satisfaction<sup>23</sup>.

- <sup>12</sup> Volman, 2011: https://pure.uva.nl/ws/files/1339209/169742\_110617\_oratie\_Monique\_Volman.pdf
- Schoolmanagers VO, 2006: http://www.teurlingsonderwijsonderzoek.nl/nl/wp-content/uploads/2013/07/060214\_brochure\_Nieuw\_leren\_waarderen\_geheel.pdf
- Last, 2021: https://www.linkedin.com/pulse/hoe-dan-onderwijsontwerp-voor-blended-learning-barend-last/
- Dochy et. al 2016: https://www.boomhogeronderwijs.nl/product/100-9221\_Bouwstenen-voor-High-Impact-Learning-tweede-druk
- 16 Kempelonderzoekscentrum, n.d.: https://docplayer.nl/14532372-Betekenisvol-leren-onderwijzen-in-de-werkplekleeromgeving.html
- Deci & Ryan, 2000: https://selfdeterminationtheory.org/theory/
- Based on: Karpinnen 2005: https://www.oerafrica.org/sites/default/files/resources/saideftp/thutong/ Research/Meaningful%20Learning%20Digital%20and%20Online%20Videos%202005.pdf
- <sup>19</sup> Howland et al, 2014 Meaningful Learning with Technology Fourth Edition
- <sup>20</sup> Knifsend 2020 et al: https://cdn.ymaws.com/www.psichi.org/resource/resmgr/journal\_2020/25\_4\_Knifsend. pdf
- <sup>21</sup> Kappe, 2017: https://www.inholland.nl/onderzoek/publicaties/studiesucces-verbinden-als-stap-voorwaarts
- 22 Deunk & Korpershoek, 2021: https://www.rug.nl/staff/m.i.deunk/deunk\_korpershoek\_-\_studentenwelzijn\_in\_ het\_hoger\_onderwijs.pdf
- <sup>23</sup> Finn, 1989: https://journals.sagepub.com/doi/10.3102/00346543059002117

Identifying characteristics	Description	Learning activities
Active (autonomy) learning	Learning is an <b>active process</b> . Students interact with the content and the (learning) environment, and are involved in the subject so that they can make a personal and independent contribution.	Students acquire knowledge, apply knowledge, complete assignments, give and receive (peer) feedback, and give presentations.
Constructive learning	Students are now expected to construct <b>their own meaning on an ongoing basis</b> by interpreting and <b>reflecting</b> on the occurrences they observe, and the substance and impact of their <b>actions</b> .	Students give each other feedback, reflect, and discuss.
Collaborative learning	Learning is a <b>social</b> process that involves students and other stakeholders in the learning environment (lecturers, professionals, peers, and supervisors). Group collaboration and peer discussions take place in a self-evident manner in knowledge-building communities. The stakeholders – primarily the lecturer – make a key contribution to the <b>emotional engagement</b> of students.	Students work in learning teams, in labs or workshops, or in a community.
Purposeful, intentional learning	Students are expected to demonstrate individual ownership and autonomy to show that they are self-regulating and can purposefully set their own goals. The starting point for the activities is the intention of the student. The direction is clear.	Students set their own goals or work towards learning outcomes.
Contextualised, authentic learning	Meaningful learning requires tasks to be linked to an authentic experience or a simulated, realistic context, so that they are <b>relevant</b> to the student and <b>applicable</b> in other situations (transfer of learning).	Students work on authentic assignments or simulations that are in line with their questions and experiential world.

Table 1: Characteristics of meaningful learning linked to learning activities

## 2. THE VALUE OF OPEN EDUCATION AND OPEN PEDAGOGY

In recent years, Dutch Higher Education has been through some decisive developments in the field of Open Education and the use of open digital educational resources.<sup>24,25,26</sup> Thus far, the emphasis has been on making knowledge/knowledge products and educational resources accessible. Activities therefore focus primarily on the infrastructure for open digital educational resources (edusources), specifically on open knowledge sharing within institutions and by lecturers<sup>27,28</sup>.

#### Student learning value

This limited approach does not sufficiently focus on the value that Open Education has for student learning, for their involvement in learning through knowledge development, working on knowledge or knowledge products to solve (social) problems, and their role in evaluating and sharing knowledge. To enable this, students must be given the scope and experience to criticise, adapt, create, share, use and reuse knowledge in new contexts. There are various methods that integrate finding, evaluating, sharing, and creating and publishing by students into the instructional design. The teaching methodology we use for this is called Open Pedagogy.

#### Open Pedagogy: a relatively new concept

Open Pedagogy is a relatively new concept in the Netherlands. It has been conceptualized in a number of ways<sup>29</sup>. These vary from an educational practice in which open licences are used to finding ways to make education more accessible. In a previous special edition and blog, the SIG described the concept of Open Pedagogy as "an umbrella of didactic methods to which one or more of the following characteristics apply:

- 1. Students work on learning tasks where the value they add is openly accessible so that others can access it, share it, and add value again (adding value)
- 2. Learning tasks are carried out by students who are connected via open networks (including social media) (collaboration in open networks)
- Students contribute to knowledge creation through learning tasks by adapting, reusing, or combining openly available content/knowledge items and making the product of their work openly available (creating and sharing knowledge)
- Learning tasks use open educational resources (OER) and content available on open networks (use of open licences).<sup>30,31</sup>

<sup>&</sup>lt;sup>24</sup> Ministry of Education, Culture and Science, 2019: https://www.rijksoverheid.nl/documenten/publicaties/2019/12/02/strategische-agenda-hoger-onderwijs-en-onderzoek

<sup>&</sup>lt;sup>25</sup> Acceleration Plan, 2022: https://www.versnellingsplan.nl/wp-content/uploads/2022/03/Verklaring-nationale-aanpak-digitale-open-leermaterialen.pdf

<sup>26</sup> Ministry of Education, Culture and Science, 2022: https://www.rijksoverheid.nl/actueel/nieuws/2022/07/14/ hogescholen-universiteiten-en-ministerie-van-ocw-sluiten-bestuursakkoord-hoger-onderwijs-en-onderzoek

<sup>&</sup>lt;sup>27</sup> Acceleration plan, 2020: https://www.versnellingsplan.nl/naar-digitale-open-leermaterialen/#kennisbank-digitale;

<sup>&</sup>lt;sup>28</sup> UNESCO, 2022: https://unesdoc.unesco.org/ark:/48223/pf0000380471?15=null&queryId=a3b104f0-22da-4e7b-93a9-906e64f3c1d2

Werth & Williams, 2021: https://www.researchgate.net/publication/354325153\_What\_Motivates\_Students\_ About\_Open\_Pedagogy\_Motivational\_Regulation\_Through\_the\_Lens\_of\_Self-Determination\_Theory

<sup>30</sup> SIG Open Education, 2019: https://communities.surf.nl/digitaal-toetsen/artikel/er-is-meer-open-pedagogy-dan-je-denkt

<sup>31</sup> SIG Open Education, 2021: https://blog3.han.nl/hanicto/model-open-pedagogy-en-studentbetrokkenheid/

#### **Open Pedagogy Framework 2.0**

This concept is continually being developed. For example, Werth & Williams<sup>32</sup> focus not only on the learning tasks and educational resources, but also on instructional design and assessment. Open instructional design, resources, assessment, and learning activities are characterised by: adding value, seeking collaboration in open networks, encouraging the creation and sharing of knowledge, using open licences and being accessible and inclusive. Based on this insight, we have added the fifth characteristic of 'accessible and inclusive' to the conceptualisation of Open Pedagogy. This gives us our Open Pedagogy Framework 2.0 (see Figure 1)<sup>33</sup>. The fifth characteristic is therefore: Based on their insight, we have added the fifth characteristic of 'accessible and inclusive' to the conceptualisation of Open Pedagogy. This gives us our Open Pedagogy Framework 2.0 (see Figure 1)<sup>34</sup>. The fifth characteristic is therefore:

5. Learning tasks encourage students to use different types of knowledge items/educational resources, and hence also enable them to familiarise themselves with differing perspectives, voices and representations (accessible and inclusive).

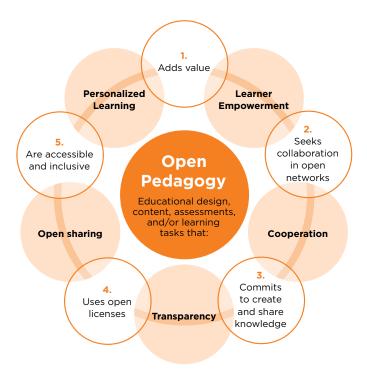


Figure 1: Open Pedagogy Framework 2.0

Werth & Williams, 2022: https://slejournal.springeropen.com/counter/pdf/10.1186/s40561-022-00191-0.pdf

<sup>&</sup>lt;sup>33</sup> Tietjen & Asino, 2021: https://www.irrodl.org/index.php/irrodl/article/view/5161/5533

<sup>&</sup>lt;sup>34</sup> SIG Open Education, 2022: https://blog3.han.nl/hanicto/open-pedagogy-van-theorie-naar-praktijk-2/

We see the Open Pedagogy Framework 2.0 as a catalyst for meaningful learning, specifically through the values shown alongside the characteristics in Figure 1. These values are derived from the values described by Werth & Williams 2022<sup>35</sup> (see also our blog). We formulate them as follows:

- a. Joint creation of knowledge (cooperation): Knowledge is not seen as complete, unchanging, or determined by those traditionally holding positions of authority (such as scholars, professors or lecturers). Lecturers and students recognise the value of joint knowledge development and make every effort to do so.
- b. Open sharing: Free sharing of information, resources and knowledge. Individuals allow others to use what they create to bolster their own personal and/or professional development. This can be done through collaboration, the publication of open articles, or by licensing creative works in a way permitted by the 5Rs of open educational resources.<sup>36</sup>
- c. Transparency: Transparency is needed when expressing the purpose of the educational activities, the assessments, and the expectations associated with them. Transparency is also needed in the values inherent in education, such as how knowledge is built up, and how one's own prejudices, beliefs and values influence education and learning dynamics.
- d. *Personalised learning:* students are free to decide what is taught, how it is taught, how the command of a subject should be demonstrated, and when the learning takes place.
- e. *Learner empowerment:* Students are involved in all aspects of learning. For example, students participate in knowledge creation, teaching, and in the appraisal of themselves and others.

Werth & Williams, 2022: https://slejournal.springeropen.com/articles/10.1186/s40561-022-00191-0

<sup>&</sup>lt;sup>36</sup> Wiley, 2014: https://opencontent.org/blog/archives/3221

## 3. OPEN PEDAGOGY AND MEANINGFUL LEARNING

Open Pedagogy is therefore a framework to design education where students are given the opportunity to create knowledge on an ongoing basis. The role of the student as a partner in knowledge development is central to the Open Pedagogy framework. An active and participatory role of the student is expressed through an active and productive search for, research into, and development of knowledge. This takes place within open networks using open educational resources. As a result, students receive more direct feedback on their work, and the impact of their work becomes more visible to themselves and their environment. Students are therefore no longer merely the recipient of knowledge but also its producer, peer reviewer and contributor.<sup>37</sup> Students gain access to freely and openly available knowledge products, add value to them and reshare the newly created knowledge products in the community.

#### Active and participatory role of students

It is precisely this active and participatory role of students in knowledge development that touches on the characteristics of meaningful learning. The underlying values that are incentivised by Open Pedagogy help to strengthen meaningful learning: taking ownership and responsibility of learning, learning in an (open) community, sharing and openness, curiosity about and involvement in learning, and adding value to knowledge to ensure impact (personal-collective)<sup>38</sup>.

#### Link between framework and meaningful learning

The Open Pedagogy framework 2.0 can be interpreted as an abstract educational vision. When linked to the characteristics of meaningful learning, its practical application becomes more visible. To illustrate this, Table 2 links the characteristics of meaningful learning to the characteristics of Open Pedagogy.

Based on the described characteristics and linked learning activities, education can be designed according to the principles of Open Pedagogy. This creates a learning environment in which students experience the impact that the products of their learning activities have on their own professional development. Furthermore, students experience their actions having an impact on the knowledge domain of their field of study and on society in general.

<sup>37</sup> Paskevicius, 2017: https://www.researchgate.net/publication/318121074\_Conceptualizing\_Open\_Educational\_ Practices\_through\_the\_Lens\_of\_Constructive\_Alignment

<sup>38</sup> Liu, 2012: https://pesa.org.au/images/papers/2012-papers-English/E73.pdf

Meaningful learning characteristic	Meaningful learning short description	Open Pedagogy characteristic	Learning activities
Active (autonomy) learning	Learning is an active process. Students interact with the content and the (learning) environment; they engage with the subject so that they can make a personal and autonomous contribution.	Students actively learn by working in a community to create knowledge. (C3, C4)	Students create assignments and offer feedback.  For example, via Open: students choose from various open educational resources, compare open publications on a subject, give a presentation and share it.
Constructive learning	Students are now expected to construct their own meaning on an ongoing basis by interpreting and reflecting on the occurrences they observe, and the substance and impact of their actions.	Students learn how to find, collect and evaluate existing digital open educational resources for the purpose of their personal learning process. (C1, C3)	Students give each other feedback, reflect, and discuss.  For example, via Open: students write an article or give presentations and share them. Students write a blog, create a vlog, or mix up articles into a new article.
Collaborative learning	Learning is a social process that involves students and other stakeholders in the learning environment (lecturers, professionals, peers, and supervisors). Group collaboration and peer discussions take place in a self-evident manner in knowledge-building communities. The stakeholders – primarily the lecturer – make a key contribution to the emotional engagement of students.	Students learn in professional communities or labs that take into account the diversity of the students. (C2, C5)	Students work in learning teams, labs, workshops or a community.  For example, via Open: students collaborate on an article, co-create in labs and share their knowledge products with others. Or they showcase the end products from their portfolio on a community-like page (e.g. LinkedIn).
Purposeful (intentional) learning	Students are expected to demonstrate individual ownership and autonomy to show that they are self-regulating and can purposefully set their own goals. The starting point for the activities is the intention of the student. The direction is clear.	Students learn to deliver study results that add value to an existing network or knowledge base, and come to realise that this goes hand-in-hand with certain criteria and responsibilities. (C1)	Students set their own goals or work towards learning outcomes.  For example, via Open: whenever students produce knowledge products, the intention is to share them. They know the conditions they must meet.
Contextualised, authentic learning	Meaningful learning requires tasks to be linked to an authentic experience or a simulated, realistic context, so that they are relevant to the student and applicable in other situations (transfer of learning).	Students learn to apply knowledge to tackle social and contextual challenges. Thanks to open networks, they can enter into transparent interactions with social and scientific professionals who provide them with input. (C1, C2, C5).  Students learn to share knowledge products (C1, C5) so that others can continue to use them and add their own value to them.	Students work on authentic assignments or simulations that are in line with their questions and experiential world or their personal interests.  For example, via Open: students create syllabuses or textbooks based on open educational resources. They build on knowledge from labs.

# 4. OPEN PEDAGOGY IN INSTRUCTIONAL DESIGN: PRACTICAL ASPECTS

Open Pedagogy in an instructional design for meaningful learning gives students the opportunity to take their own initiative in the learning process, and hence to engage in an active way in their own learning process. The space that is needed to enable autonomy (I want to learn), competence (I can learn), and connectedness (I learn together)<sup>39,40</sup>.

#### Entire framework or a single characteristic

To make learning more meaningful, it is not necessary to apply the Open Pedagogy framework in its entirety in the instructional design. Successful application of a single characteristic will already ensure that meaningful learning is strengthened, and is therefore one more step towards student-driven knowledge development. An easy first step, for example, is to share student products outside the institution so that others can discover or reuse them.

#### Division of roles between lecturer and student

Open Pedagogy characteristics have already been successfully applied in various settings in the Netherlands to increase student engagement in a course or study programme. Within these examples, we see differences in the division of roles between lecturers and students. Table 3 shows some examples arranged according to the degree of student-oriented role distribution. Each example provides information on the applied characteristics of Open Pedagogy, including which aspects of meaningful learning have been applied.

There are a number of things we observe in these examples:

- In the application of Open Pedagogy, we see a shift in the role of the student: from receiving a given assortment of knowledge to creating insights and knowledge<sup>41</sup>, and participating in knowledge development.
  - Within this shift, knowledge development is increasingly a shared and collective responsibility.
  - The role of the lecturer or supervisor is to monitor this process, so students are able to create. Furthermore, they supervise knowledge development in a safe environment.
- The application of Open Pedagogy is about student participation in knowledge creation and hence also about active and constructive learning within a community.
- The application of Open Pedagogy serves to strengthen (faster) accessible education and inclusion, for example, by curating various educational resources on a single topic.
- The application of Open Pedagogy stimulates the considered choice of 'own' knowledge sources and increases the transparency of knowledge collection (neither the lecturer nor publisher decides).

<sup>39</sup> Werth & Williams, 2021: https://www.researchgate.net/publication/354325153\_What\_Motivates\_Students\_ About\_Open\_Pedagogy\_Motivational\_Regulation\_Through\_the\_Lens\_of\_Self-Determination\_Theory

Deci & Ryan, n.d. https://selfdeterminationtheory.org/theory/

<sup>&</sup>lt;sup>41</sup> Hakkarainen, 2011: https://repository.isls.org/bitstream/1/2608/1/948-949.pdf

Role distribution of lecturer and student	Student as recipient of offered knowledge	Student as knowledge creator	Student-led knowledge development
Example	Saxion: Business Analytics MOOC  Radboud University: reuse of open educational resources in epidemiology	Radboud University: week of classics. Students develop a wiki.  WUR: geoscripting  Manchester University: mmutube  University of Groningen: Biopsychology course. Students create open educational resources.	TU Delft: working in an open network (gamified knowledge plat- form)
Characteristic of (exemplary role) of lecturer	The Lecturer is the curator; the student can independently navigate knowledge collections.	The lecturer is the curator and designer of an open learning environment.	The Lecturer is the curator and designer of an open learning environment and community.
Open Pedagogy characteristics	- using (OER)	- creating & sharing knowledge - adding value - inclusion	<ul> <li>connecting in open networks</li> <li>adding value</li> <li>inclusion</li> </ul>
Characteristics of meaningful learning	- active - constructive	- active - constructive - collaborative	<ul><li>active</li><li>constructive</li><li>collaborative</li><li>authentic</li><li>purposeful/intentional</li></ul>

Table 3: Examples of Open Pedagogy with varying degrees of student-oriented learning activities.

#### Certain attitudes and competencies are required

The central premise for all these examples is that by making work created by students (themselves) available and by sharing it openly, learning becomes meaningful and has an impact: personally, and collectively. However, it is important to be clear that the use of Open Pedagogy in instructional design requires a certain attitude and specific skills, and to acknowledge that students find this challenging. Moreover, these skills and attitude cannot always be brought to bear at the level demanded. This may be because students do not feel safe when acting completely transparently in an open community. Or because they do not feel confident enough to publish their work openly.

#### Introduction according to the scaffolding principle

It is therefore essential to introduce Open Pedagogy according to the scaffolding principle. In this way, students are gradually familiarised with the characteristics of Open Pedagogy in a safe environment. For example, they start with an assignment in which they can choose from a collection of open educational resources curated by the lecturer. This is an active and constructive learning activity. This can then gradually be expanded into a fully-fledged study programme. For example, third-year students learn to share their knowledge products or to reuse someone else's product. Students will have to apply these skills repeatedly throughout their study programme.

#### **Conclusion and core**

In higher education, we are seeing a shift in emphasis, with students being given more and more opportunity to play an active, committed and responsible role in their learning. Students are allowed to make their own choices in their own learning process. This gives learning personal and collective meaning, as well as impact: the core of meaningful learning. We see that meaningful learning can only be strengthened in an open context. Lecturers and students work to create and work with open educational resources. Thanks to open networks, they are connected to each other and the professional field. Open Pedagogy is the collection of specific activities that lead to an open context of meaningful learning.

#### The student as a partner

The Open Education SIG has further developed an educational framework focusing on these activities: Open Pedagogy Framework 2.0. Open Pedagogy is about the active, participating, and contributing role of students to develop knowledge in a particular domain: the student as a partner. This means that the student has a central role in evaluating, assessing, creating and sharing information. The student can fulfil this role in the various settings of teaching group, labs, (research) projects and open networks. In this role, students experience meaning and impact, both personal and collective.

#### Not a goal but an incentive

Open Pedagogy is not a goal but rather a way to encourage meaningful learning in education. Meaningful learning with Open Pedagogy requires an instructional design process that is thorough and rigorous. A design in which lecturers and students both, depending on the learning activity, work to create knowledge and share it. We see that lecturers who design a learning environment in which an 'open' approach is embedded are often connected in networks and communities themselves: this provides a stimulus to the open approach<sup>42</sup>.

#### Step by step

It is important to start with baby steps: the application of a single characteristic already counts as Open Pedagogy. We see that a gradual introduction of Open Pedagogy activities helps students become accustomed to working and learning in this way. Often, we do not think about the fact that the knowledge products of lecturers and students alike can be shared after their delivery.

#### **Creating meaning and impact**

There is much more knowledge to share than we think. Yet sharing is precisely how we ultimately create meaning and impact in the overall knowledge development process. This is urgently needed to solve the problems of our time. We hope that this article will contribute to the meaningful learning movement that is already in full swing. We are convinced that applying the Open Pedagogy Framework 2.0 reinforces meaningful learning. We conclude with a statement by a student at the University of Groningen (RuG) which illustrates our argument well:

"I really enjoyed the Signature Project. The assignment was clear but still left a lot of room for creativity and own interpretation, and allowed you to go more in-depth on a topic of interest. The fact that what you created might actually be used or be of interest to someone else, made the whole project feel more valuable/useful." 43

<sup>&</sup>lt;sup>42</sup> Nascimbeni & Burgos, 2016: https://www.irrodl.org/index.php/irrodl/article/view/2736

<sup>&</sup>lt;sup>43</sup> Buist-Zhuk & Blikmans, 2022: https://www.rug.nl/library/open-access/blog/moving-to-open-education-perspectives-from-chris-may?lang=en

### **COLOPHON**

#### Authors

Marijn Post - HAN University of Applied Sciences Ria Jacobi - Hogeschool InHolland Michiel de Jong - TU Delft Marjon Baas - Hogeschool Saxion (members of SIG Open Education)

#### Layout

Vrije Stijl, Utrecht

#### Photography

SURF

December 2022

#### Copyright



This publication is available under a Creative Commons license Attribution 4.0 International.

# Driving innovation together In SURF, educational and research institutions work together on ICT facilities and innovation in order to make full use of the opportunities offered by digitisation. Together, we make better and more flexible education and research possible.