

Implementing flipped learning

Are you in the process of implement flipped learning? Would you like to share your experiences with us? Why not take a little time and fill out our questionnaire. It's completely anonymous and will help us to further develop this guide (click anywhere on this text to go to the questionnaire).

The concept of flipped learning has emerged as a means of using technology, not only to supplement traditional education, but to qualitatively transform the way that we conduct education. The Flipped Learning Network defines flipped learning specifically as,

„... a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.“

As helpful as this definition is for pointing out some of the elements of flipped learning, it is somewhat confusing in its reference to flipped learning as a *pedagogical approach*. In fact, what emerged from the FLiP project, is that flipped learning cannot be described as a pedagogical approach, but rather a way to organise instruction and learning activities to provide instructors with flexibility to implement a range of pedagogical strategies.

By shifting direct instruction from the shared learning space, i.e. usually a classroom, to the learners' private spaces, i.e. wherever learners work individually, instructors are afforded greater latitude to engage learners in activities that build on a range of proven effective pedagogical approaches, such as collaborative learning, problem-based learning, integrative learning and any number of hybrids that

instructors might formulate. And indeed, the instructors and schools that were involved in the FLiP project demonstrated clearly that this is what happens when flipped learning is implemented; learning in the shared space becomes more learner-centered and instructors use the flexibility afforded by flipping to focus on individual learners' needs.

Rather than describing flipped learning as a specific approach or strategy, the FLiP project revealed that it is better described in terms of the principles and values that make it possible for instructors to flip their learning environments. How these principles and values inform the flipping process is influenced by the environment in which the instructor is working, including social conditions and norms, organisational culture, and regulative frameworks. Because of this, it is very difficult to point to specific examples that definitively demonstrate what flipped learning is. More useful, is to look at flipped learning as a goal-oriented initiative that affords any number of pathways towards a set of well defined outcomes. Among the shared anticipated outcomes of flipped learning that emerged in the FLiP project were:

Outcome	Description
Learner-centered environment	<ul style="list-style-type: none"><li data-bbox="507 1440 1270 1697">· Learners take control of their own learning through the use of recorded direct instruction and increased freedom within the shared learning environment.<li data-bbox="507 1709 1270 1910">· Instructors' attention is directed toward individual learners and their needs rather than the group as a whole.

Heterogeny of pedogogical approaches	<ul style="list-style-type: none"> Instructors incorporate a range of pedagogical approaches to meet individual learners' needs.
Effective use of learning technologies	<ul style="list-style-type: none"> Learning technologies are incorporated in instructional activities in shared and private spaces based on learners' preferences or needs.
Flexible time management	<ul style="list-style-type: none"> Shared space is fluid allowing learners and instructors to organise time to meet individual needs.
Formative assessment	<ul style="list-style-type: none"> Instructors are more aware of individual learners' needs and, thus, better able to steer them toward suitable learning pathways.

From the FLiP project we have learned that flipped learning centres around the strategic use of technology to allow instructors to make the most effective use of the time that they have with their learners. When addressing broad social contexts, such as was done in the FLiP project, any definition more rigid than this runs the risk of constricting the potential that a flipped learning approach has to affect change in learning environments. The many cases that were included in the FLiP project demonstrate that in flipped learning implementations, the nature of the expected outcome and the pathway towards it can differ significantly from one context to another, depending on social and organisational context, school level, learners needs or anticipated learning outcomes. This affords considerable flexibility in how flipped learning is implemented in schools.

When a decision has been made to implement flipped learning in a learning environment, there are few predeterminable criteria that can be applied to all possible contexts. The success or failure of implementing flipped learning is instead determined according to the goals set by the instructors and organisations involved. A reasonable implementation strategy needs to be formulated in accordance with social and organisational contexts. Measurable goals must be defined, along with evaluation criteria, that clearly demonstrate how implementation is adequately addressing needs of learners, instructors, organisations, and surrounding communities.

Defining flipped learning

An important first step for flipping a learning environment is to define what flipped learning is in the given context. How flipped learning was defined among the many instructors that were involved in the FLiP project varied significantly between countries and schools. When asked about how they understood the concept of flipped learning, the most common responses were:

- Recording lectures to video and making available online.
- Instructors use one or many technologies to facilitate instruction.
- Creating opportunities for collaborative learning in the classroom.

Although there are certainly connection between the three views, in terms of where the emphasis is placed, they differ considerably. Despite the differences in instructors' understandings of the concept of flipped learning, what proved most important for successful implementation was that

instructors working together had a shared understanding of what the concept means to them. This was an important factor in their being able to work together and support each other as they flipped their learning environments.

Some of the factors that need to be considered when defining flipped learning include:

- Learners' access to technology (in their group and individual spaces)
- Instructors' access to technology
- The subjects to be flipped
- The expected learning outcomes
- The target age group

Included in learners' and instructors' access to technology is their capacity to use the necessary technology.

Flipped learning is most commonly associated with recording direct instruction to video for learners' to watch on their own time and in their individual spaces. But, this is by no means a requirement. Other forms of delivery of direct instruction may even be more suitable, depending on the circumstances.

For example, a group of instructors in Italy, who taught very young learners, flipped their learning by using engaging digital resources with groups of learners in the classroom. This way, they were able to ensure that all learners had equal access to the necessary direct instruction and could focus on more individualised learning activities afterward. Although this type of activity is likely not compatible with common definitions of flipped learning, since it all occurred in the group space, this group of instructors had defined flipped learning in a way that was wholly appropriate for their context. Thus, they were able to work as a supportive team to develop an innovative instructional approach that was consistent with their goals and their learners' needs.

Flipped learning is a flexible approach to education that is

intended to create opportunities to do things differently. As such, the concept accommodates a range of definitions depending on the context in which it is implemented and the desired outcomes. Therefore, a critical starting point for any implementation of flipped learning is for all involved to be clear about what flipping means to them and why they want to flip. There are a lot of websites that describe how others have defined flipped learning for themselves that can serve as a useful starting point. See in particular the Flipped Learning Network.

Goals and organisational buy-in

Instructors are often stereotypically regarded as individual workers that are in charge of their classroom. But, no matter how independent instructors are, they almost always work within a social, regulatory, and organisational environment that is beyond their individual control. These externalities exert pressures that can affect what an instructor can or cannot do. So, even where the ultimate decision to flip or not is in the instructors hands, it is important that others in the environment are aware of, and understand, what is happening and why. This helps to ensure that the instructor is able to get the resources and support needed to successfully flip their learning environments.

As is described elsewhere, it is important that there is a common shared understanding within the organisation about what flipping is. But, equally important is that there be agreement concerning the goals of flipping the learning environment, even when not all instructors in the organisation are

involved.

Goals should be described in such a manner that they can be measured to gauge progress throughout the implementation and developmental process. It is also important that the goals of flipping reflect the overall goals of the organisation. Otherwise, the flipping process may be viewed as working against the organisation's interests and be more likely to generate negative sentiment.

Here are a few pointers about setting goals for monitoring the implementation of flipped learning:

- Clear, concise and measurable – Goals should be unambiguous so that they are clearly understandable by individuals involved in the flipping project and those who are not. Avoid stating goals that encompass more than one measurable aspect of the project as this opens the door to misinterpretation of collected data.
- Free of jargon – Goals should be stated in language that is clearly understandable by everyone within the organisation, whether they are familiar with the concept and process of flipping or not.
- Goals are tools – Monitoring the flipping process is not done just for the sake of generating data. The primary reason for monitoring is to help to make the process better. Goals and monitoring tools should facilitate reflection and translation into better practice.

Here is an example of a reflective monitoring tool developed by the FLiP project. The criteria used here are based on the Flipped Learning Network's F-L-I-P Pillars and feedback from the instructors who participated in the FLiP project. This is only for demonstration. It is likely that your goals will be different than those used here.

Working with supportive networks

Flipped learning works best when implemented in a supportive environment. Among the instructors involved in the FLiP project, those who had the most difficulty sustaining the changes that they were trying to implement were those who worked alone. In fact, when Icelandic instructors who were involved in the FLiP project were asked what beginner flippers most need, almost all responded that they need a supportive team to work with. Instructors in other countries also expressed a need to have access to collaborative environments where they could access and share resources and get peer support.

The types of support that instructors feel they need are by no means limited to technical support. They also expressed a need for the support of networks of other instructors and school administrators to be able to exchange ideas on pedagogical practices and useful learning resources.

Instructors' networks need not be confined to a single organisation. Networks may include instructors and technical support staff from other organisations. In Slovenia, instructors from two organisations participated in the FLiP project. In one organisation there was an instructor who was intensely interested in learning technologies and spent a lot of time looking for, and testing, a range of technologies. He diligently shared his experiences with other instructors within his organisation. As a result, the flipped learning environments within that organisation were quite technologically sophisticated. The other organisation involved lacked this element and, while instructors there had

effectively flipped their learning environments, they could have benefited from the insights of the instructors at their partner organisation.

There are a number of networks of educators that either are, or are interested in, flipping their learning environments. This includes groups on Facebook, loosely connected networks on Twitter (look for related hashtags like #flippedlearning or #flipclass), and on other social media. Often the most active members of these communities are the most enthusiastic instructors that have the most experience and are, thus, valuable resources for beginners. Many of these online communities are international and communicate in English. However, instructors from specific countries often establish their own communities where they can communicate in their own language and share localised resources. As long as these communities are fairly active, they are usually easy to find by searching Google with the appropriate terms.

Glossary of flipped learning terminology

Active learning

Learning activities in which learners are engaged and active participants in the learning process rather than being passive receivers of information.

Assessment

Assessment involves gathering information and data to develop an understanding of learners' knowledge and capabilities and

evaluate their further learning needs.

Blended learning

Blended learning refers to learning environments or activities in which learning technologies are used in conjunction with traditional tools, environments and practices.

Direct instruction

Direct instruction involves an instructor delivering new information to students in order to facilitate learning. The term is commonly used to describe what many would refer to as *traditional teaching*, i.e. a one-to-many informational activity in which the instructor plays a central role as the provider of new information which learners are expected to internalise to further their knowledge.

Formative assessment

Formative assessments are carried out during the learning process to evaluate how learning activities are meeting learners' needs. The outcomes of formative assessments may be used to modify learning activities or to help learners identify their own future learning needs.

Group space/shared space

A group space, also referred to as a shared space, is a physical, conceptual or virtual space in which learning activities are conducted with several learners at the same time. A group space is always situated within a learning environment and may include all learners within that environment or any portion thereof. The typical group space is the traditional classroom.

Homework

Any learning activities that learners are expected to engage in in their personal space.

Information and communication technologies (ICTs)

ICTs include any technologies that are used for accessing, sharing, working with, and creating information, such as; computers, smart devices (phones and tablets), networking devices, display devices (projectors and smartboards), etc..

Learning environment

A learning environment is any environment that is intended to facilitate learning. A learning environment can be a physical environment, a virtual environment or any combination of the two.

Learning technologies

Learning technologies are any ICTs that are used for the express purpose of facilitating learning. This includes ICTs that are particularly designed to facilitate learning and ICTs designed for other purposes when they are used to facilitate learning.

Passive learning

Learning activities in which learners receive new information is presented to learners to facilitate their own learning. New information is usually presented by a more knowledgeable person, often a teacher. A typical example of passive learning are one-to-many lectures.

Personal space/individual space

A personal space, also referred to as an individual space, is an environment that an individual constructs to facilitate their own learning. In their personal spaces, learners are free to engage in learning activities at their own time and pace and using whatever methods they feel are most suitable for their needs. The typical personal space is the learners' home, where they would do homework.

Summative assessment

Summative assessments are carried out following a learning activity to determine how learning outcomes of the activity compare to certain benchmarks.

Flipped learning journaling tool

Your email address:

Starting date for the reported period:

End date for the reported period:

Description of learning activity

Medium used for flipping

- Video
- Outside class activity
- Student collaborative activity
- Collaborative activity with parents
- Other

Look-fors: What happened in the classroom as a result of your flipping?

Use the sliders to indicate your response to each item.

1. In what setting did direct instruction take place?

LF1

1

<i>In a classroom setting</i>		<i>Outside a classroom setting</i>
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2. How were students' learning spaces configured with regard to what, where and when learning activities were conducted?

LF2

1

1

<i>Students worked in assigned spaces</i>		<i>Students created their own learning spaces to meet their needs</i>
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3. What kinds of learning strategies were used to foster learning?

LF3

1

1

<i>Learning mostly involved face-to-face interactions in a physical environment</i>		<i>Learning involved a range of face-to-face and digital strategies</i>
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4. What digital resources did students use?

LF4

1

1

<i>Students used digital resources selected by the instructor</i>		<i>Students selected a range of digital resources to meet their learning needs</i>
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5. How were digital resources acquired?

LF5

1

1

<i>Most digital resources were purchased by the teacher or school</i>		<i>Most digital resources were created by the teacher and/or colleagues</i>
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6. Who directed students' learning?

LF6

1

1

<i>Students' learning was mostly directed by their teacher</i>		<i>Students' learning was mostly directed by students and their peers</i>
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7. How was students' study time managed?

LF7

1

1

<i>Students' study time was managed by their teacher and school</i>		<i>Students or their parents managed their study time</i>
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8. Who assessed students' learning progress?

LF8

1

1

<i>Students' progress was assessed by their teacher and school</i>		<i>Students assessed their own learning through self and peer assessment</i>
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9. Where was students' learning progress assessed?

LF9

1

1

<i>In a classroom setting</i>		<i>Outside of a classroom setting</i>
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10. How challenging was the learning experience for students?

LF10

1

1

<i>Students were revising what they had previously learned</i>		<i>Students were extending and elaborating their learning</i>
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Was the learning and teaching targeting development of curriculum knowledge, social-emotional and/or cognitive skills? Indicate this for each of the following areas of students development:

11. Curriculum knowledge and concepts

LF11

1

1

<i>Learning was not intended to develop curriculum knowledge and concepts</i>		<i>Learning was intended to develop curriculum knowledge and concepts</i>
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12. Social skills

LF12

1

1

<i>Learning was not intended to develop students social skills</i>		<i>Learning was intended to develop students social skills</i>
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13. Emotional control and self-regulation

LF13

1

1

<i>Learning was not intended to develop students emotional control and self-regulation</i>		<i>Learning was intended to develop students emotional control and self-regulation</i>
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14. Skills for attentive and focused learning

LF14

1

1

<i>Learning was not intended to develop students skills for attentive and focused learning</i>		<i>Learning was intended to develop students skills for attentive and focused learning</i>
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15. Problem-solving and reasoning

LF15

1

1

<i>Learning was not intended to develop students skills for problem-solving and reasoning</i>		<i>Learning was intended to develop students skills for problem-solving and reasoning</i>
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What are your learning needs at this point in time?

What I know...

What I need to learn...