National policy and main realizations about New Learning Environments in France

Expert meeting CIDREE

Lyon - 9th October, 2018

1.
French context about school buildings and digital equipments

New learning environments : who does what in France ?

- **Before 1983, the french ministry (= Ministère de l'Education nationale) took care for everything in schools equipment**

- **Since the decentralization, competencies in managing primary and post primary schools are shared between different stakeholders**
  - The state manages teachers and pedagogy (curriculum, teachers recruitment & training…)
  - Local and regional authorities manage buildings, furniture, pedagogical and digital equipments (+ school transport, school lunch, school cleaning…)
  - 3 levels of local authorities : primary school (3-10 years) = city / middle school (11-14 years) = departemental council / high school (15-18 years) = regional council

- **It is even more complicated for higher education!**
  - Teachers and researchers (civil servants) receive their salaries from government
  - Local and regional authorities finance buildings
  - French local and regional authorities, Europe and private companies give allocations or grants for research or development projects
  - Public universities are autonomous and develop remunerative activities (professional training…)

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A typical classroom in France = the « bus shaped classroom »

- **School buildings and physical organisation of learning spaces**
  - Are mainly based on a conventional design from the 19th century
  - The school building stock : mostly closed settlements and a majority of bus shaped classroom (lecture courses, transmissive pedagogy)

- **Over the next 30 years : major stakes about renovating existing schools and building new ones**
  - Changing demographic reality
  - Many ageing school buildings
  - Very strong financial issues

- **Local and regional authorities have great expectations about how to build « schools of the future »?**

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Development of digital technology in France schools = a high degree of territorial inequalities

- **The Digital Plan for Education (2015 to 2017)**
  - A big effort for school equipment shared between the state and the local and regional authorities (50/50)
  - Educational authorities implemented an important professional training program for teachers
  - The DPE allowed to equip a part of the classes (mainly at the college level)
  - Most of the time, mobile classroom of digital tablets were chosen

- **DPE has just been stopped in september 2018 (the state does'nt cofinance any more)**
  - Actualy, they are strong inequalities between schools concerning their digital equipment level
  - Depending of their territory i.e. depending on the financial situation and political decisions of their local/regional authorities
  - 2nd level (middle + high school) is much better equipped than 1st level (primary school) : information infrastructure, IT flow, rates of digital device per pupil...

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The progressive integration of digital skills and competencies into curriculum

- **School programs were renovated in 2016 and they now integrate digital skills 's acquisition**

➢ **Primary school : learning to code from the 3rd cycle (9-11 years)**

➢ **Middle school (11-14 years)**
  - Further development towards computer programming and a*lgorithmique*
  - Every pupil takes the B2I test (certificate in information technology and internet)

➢ **High school (15-18 years)**
  - Option « Information technology & Digital creation » in literary and economic divisions (1st year)
  - Special educational program « Information technology & Digital sciences » (2nd et 3rd years in sciences division)
  - Strenghtening of digital learnings and practices in professional divisions.

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France is facing a period of hesitation and of instability about digital development at school

- **In the end, France is in a period of reflexion and of hesitation about how to develop digital equipment et how to redesign the learning physical and virtual spaces at school**
  - The national politics is marked by movements of "stop and go" on the digital technology
  - There is no clear policy neither from the state nor from the local and regional autohorities about the transformation of school spaces and learning environments
  - The whole education community has a real difficulty to talk of the « digital transformation of the french school system »

- **In addition to these points, there are at the moment…**
  - A lot of questions about how to increase the rate of personal digital equipment and IT infrastructure performance? Shall we allow to develop the BYOD way? But very few schools are equipped with wifi in France…
  - Strong debates since 2016 on the protection of personal data (especially pupils personal data & learning analytics)

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2.
New Learning Environments in France :
what are we talking about ?

An emerging movement about transformation of the learning environments

- In 2016 & 2017, a movement of reflection and proposals has emerged about the issue of the academic form and how to have it evolved. This movement was born among the officials and instructors of the ministry, and also among an active minority of teacher.

- This reflection on the school form crosses three currents of ideas :

1. **The need to develop more active pedagogies and more interactive ways of work with pupils** (in response to massification of school population and in order to fight against early school leaving)

2. **The need to integrate the acquisition of transversal competencies and competencies of the 21st century all along the curriculum**

3. **The need to prepare pupils to a digital scoiety : help them cope with IoT, consolidate the media & information literacy, train pupils for the business opportunities and jobs of tomorrow.**

New Learning Environments : an emerging concept in France

- **A term still little used at the institutional level and at the scientific level**

  - A national group of expertise works at the request of the ministry on the relation between the development of IoT in schools and the evolution of learning environments (school spaces and pedagogical approaches)

  - But very few research labs work on this matter : in France, education sciences are hardly interested neither in physical and material conditions of learning, nor in issues about the place of pupil's body and of physical space in learning-teaching processes

- **In France, NLE are first defined in opposition to conventional learning environments ➔ NLE mean spaces…**

  - … designed and organized differently from / in opposition to the « bus shaped classroom »
  - … integrating opportunities related to IT technology and digital devices
  - … leading to enlarge and hybridize the space and time of learning-teaching processes (i.e. to get out of the time & space unit traditionaly dedicated to the learning sequence or process).

Proposal for a New Learning Environment typology

Conventional learning environments that are redesigned et reorganized by the triple architectural, technological and pedagogical movement	Classroom, lecture hall, school library, specialised classroom (IT classroom, science lab, school corridors and other school living spaces…
Spaces dedicated to experimentation and to pedagogical and techno-creative innovation. They can be located either inside or outside school settlements.	Fablabs, Learning labs, Edulab, ECLA classroom…
Virtual or hybrid learning spaces	Virtual classroom, virtual school or institute, education digital workplace (ENT), Moodle, Moocs, LMS…
Virtual learning and socialisation environments	Social networks, digital professional communities, professional collaborative groups or platforms (for example Golabz/Nextlab)…
Spaces that become accessible and pedagogically useful thanks to digital technologies	Remote exploration (telepresence) or virtual exploration (3D, augmented reality) of out-of-school places : museums, exhibitions, laboratories, enterprise, natural spaces, etc.

New Learning Environment : try of definition

✓ **For us, the word " New Learning Environments" refers to :**

  - Porosity between formal (academic) and non formal learnings (out-of-school, assocative and familial apprenticeship…)
  - Integration of young people digital uses in school learning processes
  - Transformation and reconfiguration of the classroom (modularity and plurifunctionality of the space)
  - New spaces dedicated or facilitating collaborative knwoledge and/or based on an experimental approach (third places, learning labs, fablabs…)

✓ **When you think about the NLE, you take different things into account :**

  - Firstly the evolution of the physical and material situation either of the student or of the teacher
  - Secondly the potentialities offered by tools and digital technologies at their disposal
  - Thirdly the evolution of the pedagogical practices and of the way of interacting towards more collaboration, experimentation and co-construction of the knowledges.

3.
The main realizations
at the moment in France

A heterogeneous movement of development of "labs"

- **Canopé studios propose a support for codesign projects. They position themselves as third place and spread methodological resources for the educational stakeholders.**
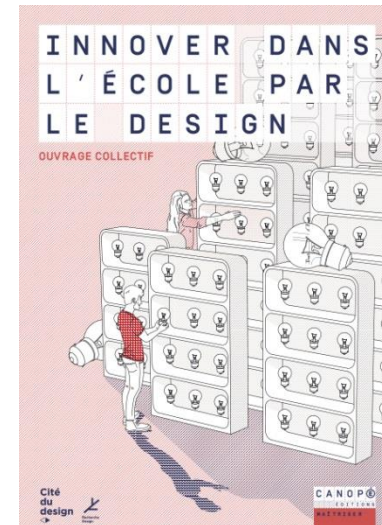
- **Since 2016 in Lyon area, three ECLA classrooms have been settled ➔ they are pioneers in the development of educative third places in middle schools. Many other learning labs, edulabs… are blooming at the moment in middle and high schools.**

A heterogeneous movement of development of "labs"

- **The multiplication of fablabs in colleges and high schools ➔ pedagogical rehabilitation of manipulation and scientific experimentation, encouragement to develop creative skills, manufacturing of connected objects, educational robotics…**

- **The "110 bis" was officially opened in June 2018 : it is the new « lab » of the Ministry and it aims to become a head of network at the national level.**

Different projects to transform school spaces… and teaching-learning practices

➢ **« La Mine » (the [gold] mine) inaugurated in June 2018**

- The transformation of classrooms into « labs » in two middle schools following a collaborative design thinking process in the Loire department

- A group of teachers and other members of the local educative community worked in 2017-2018 with a designer from the local Canopé studio to imagine a new space issued from the renovation of two ordinary classrooms

- This new space should allow teachers from different disciplines to work together and propose a more agile and creative working environment ➔ writing wall, modular furniture, differentiated and adapted lighting, digital devices…

- The primary schools from the surroundings will be able to « borrow » this lab and/or to develop common pedagogical activities with the middle school

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Different projects to transform school spaces… and teaching-learning practices

- **The LP2I high school (International Innovative Pilote High school) near Poitiers**
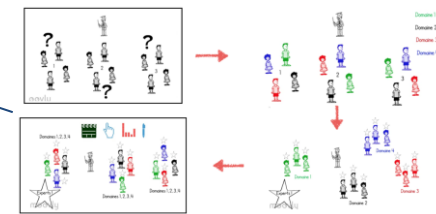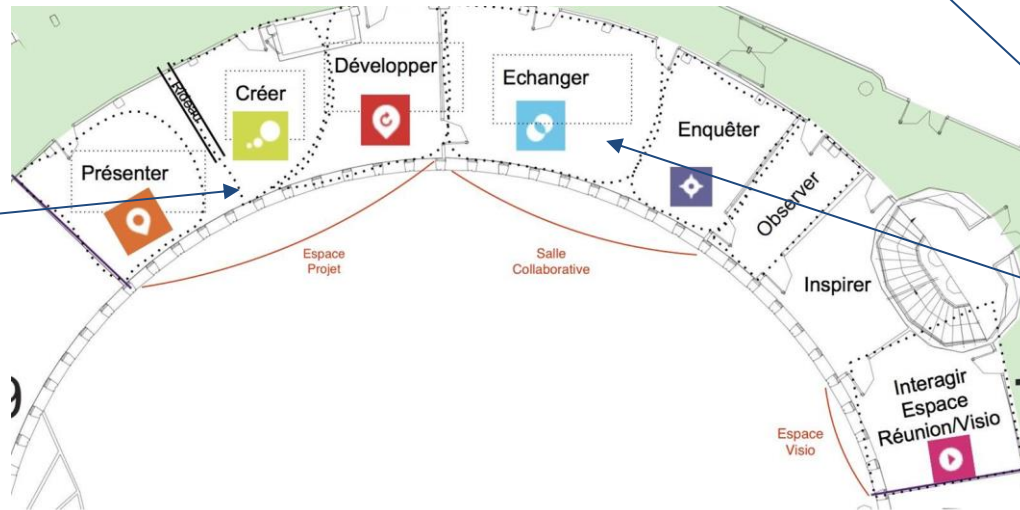
A wide range of local and national experiments

✓ **The « college lab » project started in September 2017 for two years**

- This is a national experimentation which goal is to transform some 50 middle schools in pedagogical innovation laboratories by building on digital tools and practices ➜ for example the old versus new study room at Entre-deux-Velles middle school (near Besançon)

✓ **Since 2013, about one hundred of school libraries have turned into 3C = Center for knowledge and culture**

- This project is currently being boosted by the Ministry (updating of the 2013 Vademecum). But the librarians (media and information teachers) are reluctant to such an evolution of their jobs.

Two main examples of capitalisation about school & classrooms transformation

- **Archiclasse**

- **The Future Classroom Lab network**

4.

Some issues raised by the development of New Learning Spaces

Questions for researchers

1. Questions about the relevance and pedagogical effectiveness of these New Learning Spaces

1. Questions about the impact of these developments on the professions of teacher and pupil…

   … and also about the impact on roles, postures and competencies of the different education professionals (librarians, supervisors…)

3. Questions about how do architectural and functional evolutions of school establisments contribute – or not – to academic achievement.

Strategic issues for decision makers

- **Is it relevant to multiply labs and third places within schools? Or outside schools? What reproducibility of these spaces and the uses that accompany them?**

- **Should design thinking be generalized to support schools transformation?**

- **What furniture should be bought ? How to manage (technically and financially) the massive transition of equipment and furniture?**

- **Should we take support on pupils and teachers personal devices? Should BYOD be generalized?**

- **What governance should be put in place to encourage the transformation of buildings and physical spaces? What governance and what support for the uses we want to promote in these NLE?**

- **How to manage the rise in competence of teachers ? What is at stake when a teacher teaches in these specific spaces? How to accompany this transformation of the profession?**

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