

# ADVANCED STUDIES ON LANGUAGE COMPLEXITY



**LABEX  
ASLAN**  
UNIVERSITÉ DE LYON

**A KEY FOR  
EDUCATION, HEALTH,  
AND SOCIAL COHESION**

# How to facilitate inclusion of people with Dyslexia-dysorthographe ?

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✓ With reading

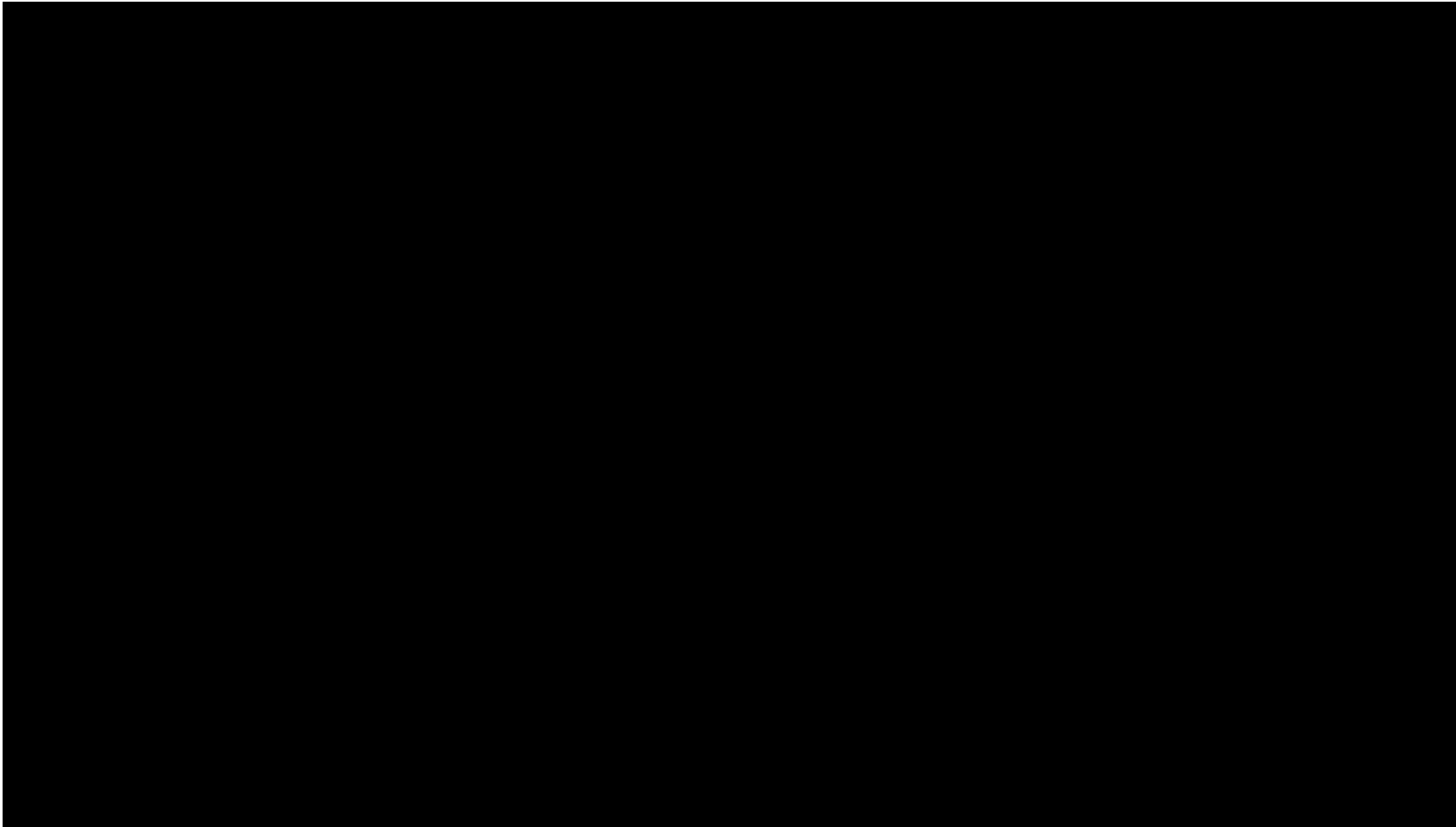
- Less accurate (more errors) than matched non-dyslexic adults (More errors)
- Slower reading (of single words, sentences, texts with and without meaning) than matched non-dyslexic adults

⇒ But no comprehension deficit



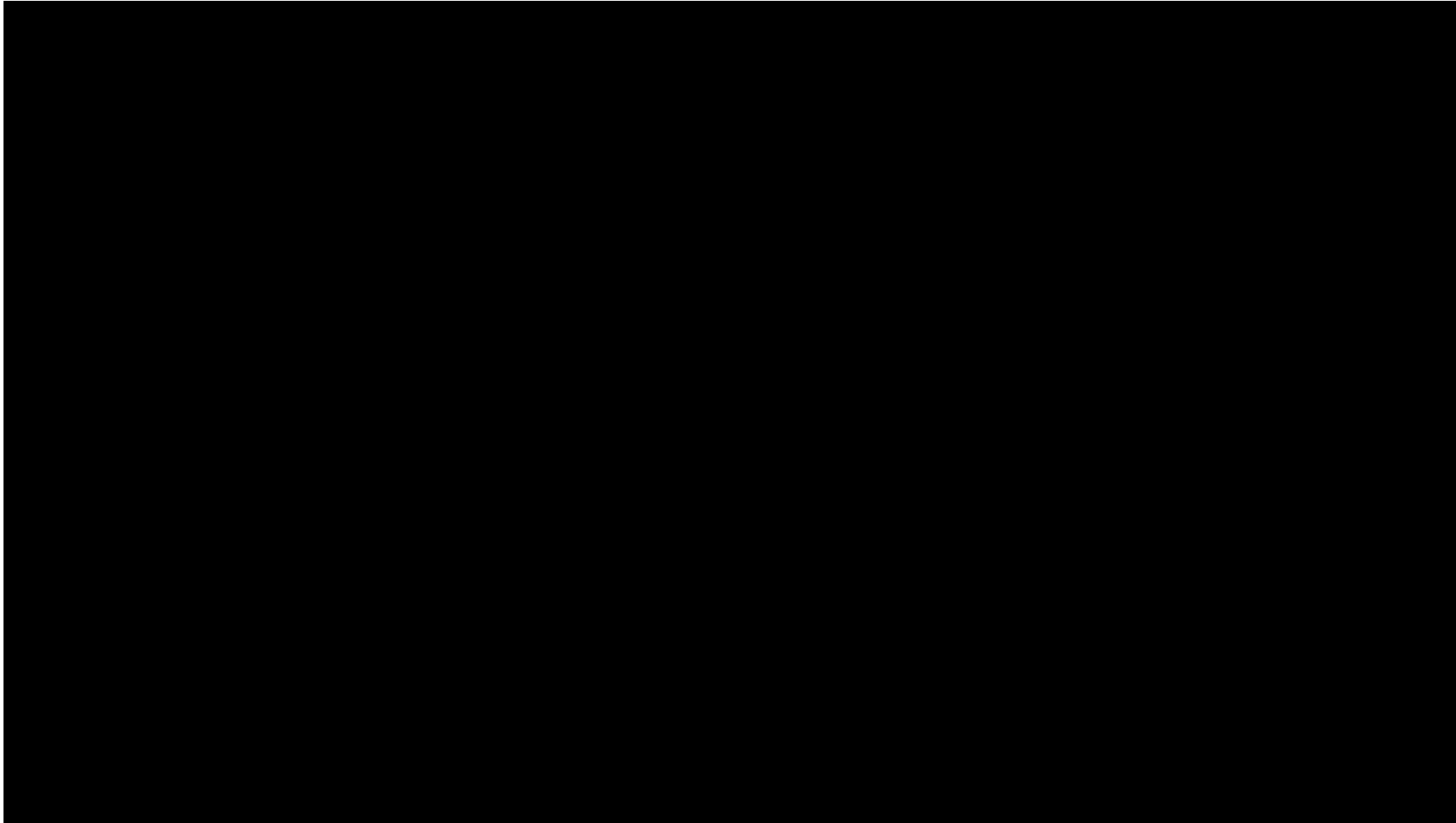
Example of a student (42): *dyslexic, 19, 8 year olds, in second year of higher education*

*Texte de l'Alouette – Difficulties to read a text without context*



Sous la mousse ou sur le (**les**) toit, dans les haies vives (**vivant**) ou le chêne fourchu, le printemps a mis ses nids. Le printemps a nids au bois.  
 Annie amie (**Annie**), du renouveau, c'est le doux temps. Amie Annie, au (**jo**) bois joli gamine le pinson (**panson**). Dans les buis, **g**ite (**guite**) une  
 biche, au bois chantant. Annie! Annie! Au doigt joli, une églantine laisse du (**son**) sang.

Texte du Vol du PC – Fewer difficulties because she can rely on context to guess but has difficulty with new words



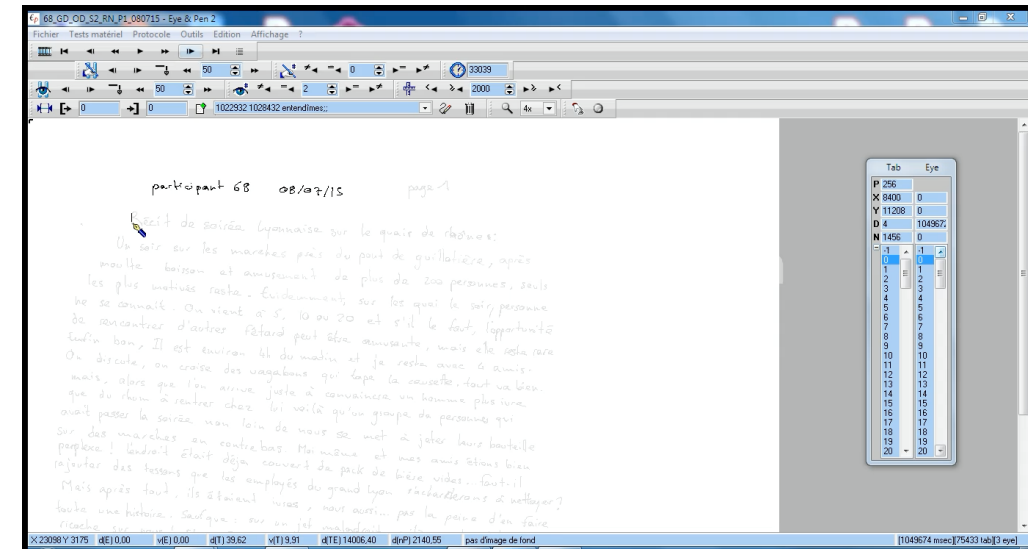
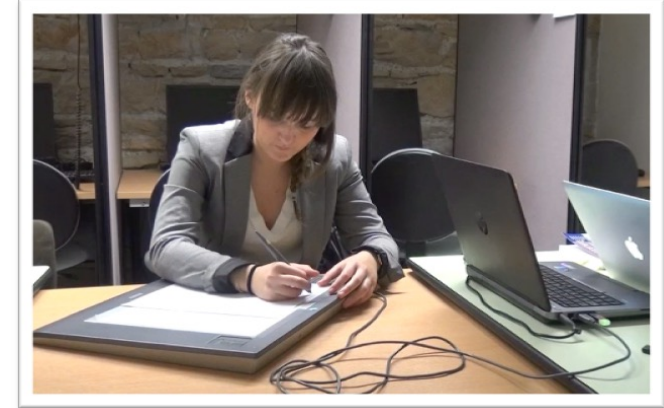
Un cambriolage a été commis dans le (les) bureau de la Micheratur (**Micharatur**), une société fabriquant des phasplioraux et des gatribuceurs (**gastribuceurses**). Gary Vospoir détective de l'agence Tsécoin (**Téscoïn**), arrive sur les lieux pour mener l'enquête, et voit un homme en blouse blanche sortir d'un local technique. « - Bonjour Monsieur. Puis-je vous demander ce que vous faites ici?

- Bonjour. Je suis monsieur Denrobeille (**Dènerobeille**), responsable informatique.

- Vospoir, détective. Je suis ici pour enquêter sur le cambriolage qui vient d'avoir lieu.

## ✓ With writing

- Less polysyllabic word production... but some recent studies do not confirm it !
- Not fully automated phoneme/grapheme conversion system
- Higher number of spelling errors than matched non-dyslexic adults
- A deficit in the error identification mechanism
- A less efficient revision process
- Difficulties with lexicon: confusion of monosyllabic words, omission of words in sentences, use of inappropriate vocabulary
- Lower production speed than matched non-dyslexic adults



**Refuts**

Refut

**Acutlurera**

(acculturera)

**Ancieneté**

(Ancienneté)

**Interoger**

(interroger)

**Soupsonner**

(Soupçonner)

**Veintaine**

(vingtaine)

**Proféseurs**

(professeurs)

**Tourneure**

(tournure)

**Réponce**

(réponse)

**Dixaine**

(Dizaine)

**Videau**

(vidéo)

**Interomption**

(interruption)

**Ayneux**

(haineux)

**Séchemant**

(séchement)

**Disloquation**

(dislocation)

**Extraitment**

(extrêmement)

**Histoïr**

(Histoire)

**Agraisseurs**

(agresseurs)

**Escabot**

(escabeau)

**Parceque**

(parce que)

**Dufaite**

(du fait)

**Blaiser**

(blesser)

**Surment**

(surement)

**Violance**

(violence)

**Àparamment**

(apparemment)

**Budjet**

(budget)

**Diferent**

(différent)

**Évidament**

(évidemment)

**Phemenologie**

(phénoménologie)

**Différance**

(Différence)

**Chaquins**

(chacun)

**Longt**

(long)

**Autruie**

(autrui)

## Student with dyslexia (34)

d'autre ne veulent pas, certains  
 s'entraide... Dans cette partie de la vidéo toute  
 les personnes qui triches sont associé a la couleur  
 rouge (vêtements, trousse...). La couleur rouge est <sup>peut être,</sup> associée

D'autres ne veulent pas, certains s'entraident... dans cette partie de la vidéo  
 toutes les personnes qui trichent sont associées à la couleur rouge  
 (vêtements, trousse ...). La couleur rouge est peut-être associée [...]

*Others don't want, certain help themselves... in this part of the video all the people who  
 cheat are associated with the color red (clothing, kit ...). The color red can be associated [...]*



## ✓ Attentional behavior

- An atypical attentional system (without being pathological), marked by
  - An impulsive trait
  - Distractibility (less good concentration and sensitivity to distractors)
  - And a lack of maintenance of attention in long and monotonous tasks



- ✓ **Some studies show the impact of dyslexia in the all the domains of adults life** (De Beer, Engels, Heerkens et van der Klink, 2014)
  - In their personal life and in their professional life
  - These studies show that employees can have a negative perception of their own capacities over time
  
- ✓ **Dyslexia has also an important impact in the professional life !**
  
- **Dyslexia at work: a social health issue**
  
- **Dyslexia@work.eu project !**
  - To **identify a set of good practices**, methodologies and tools that allow companies and recruiters to be able to appropriately assess the abilities and talent of a dyslexic candidate
  - To **provide opportunities** for dyslexic adults to approach and calmly face the research and selection phases, job placement and professional growth, minimizing the fatigue and discomforts that dyslexia can entail

- ✓ One of the tools resulting: a brochure
  
- ✓ Objective
  - ✓ To give some good practices and advices from the companies of the project
  - ✓ In order to facilitate the recruitment and then, the inclusion of people with dyslexia
  - ✓ In order to better appreciate their skills and talent, beyond their disorder



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## ✓ The first fourth parts permit

- Contextualisation
  - Percentage of adults with dyslexia
  - Focus on the lack of studies about dyslexia in adulthood
- Brief presentation of the project Dyslexia@work.eu
  - Main objectives
  - Partners
- Overview of the definition of dyslexia and its impact
- The added value of employees with dyslexia

## INTRODUCTION

European citizens with learning difficulties such as dyslexia represent between 3 and 12% of the population with sometimes significant differences between countries (European Dyslexia Association - EDA - <https://eda-info.eu/what-is-dyslexia>).



## DYSLEXIA

Dyslexia is a **learning difference** that can cause difficulties with learning and work. It affects approximately **1 in 10**. It occurs on a spectrum with some people mildly affected and others more severely. With the right understanding, accommodations and support people with dyslexia **can achieve success** in education, the workplace and in wider society.



## IMPACT OF DYSLEXIA

Dyslexia is characterised by cognitive difficulties in **phonological processing, working memory, and speed of retrieval of information from long term memory.**



Difficulties caused  
by dyslexia

Examples of adjustments to help  
people with dyslexia at work

Persistent  
difficulties to  
read

To make available the  
document in alternative  
formats (vidéo)

Atypical  
attentional  
behavior

To create a safe  
environment (specific  
room, no interfering noise,  
etc.)

Persistent  
difficulties to  
write

To adapt written recruitment  
test (assistive technology,  
additional time, etc.)

✓ Some ideas for raising awareness of this disorder within the company

- Sensitize colleagues to dyslexia (plan awareness-raising activities, intervention of specialists and researchers, testimonies, etc.)
- Anticipating the needs of the dyslexic person (for instance, providing a quiet workspace; more time to complete a specific task, etc.)
- Dyslexic champions, especially within senior management, positive role models who openly discuss their dyslexia: they can be more empowering than training





Difficulties caused by dyslexia

Examples for an adapted workstation

Persistent difficulties to read

Size of the screen, type and size of font, reading software

Atypical attentional behavior

To facilitate work processes, to communicate explicitly on timelines and work plans, to provide the right work environment

Persistent difficulties to write

To permit assistive technology (spelling assistance software and checkers, voice recognition software)



## ✓ Some ideas to provide support and flexibility

- Encouraging cognitive breaks during the workday
- Flexibility in working hours
- Assistive technology
- Working as a team



## ✓ How to handle and facilitate a meeting ? By anticipating each step

- Before the meeting
- During the meeting
- After the meeting



### BEFORE THE MEETING

- Provide ALL relevant and necessary documents
- If there are new concepts or new vocabulary during the meeting, explain them
- If the employee with dyslexia has to actively participate, they must have time to prepare well in advance in order to feel secure



## ✓ Some examples of responses

- Specific training on dyslexia that raises awareness
  - Improving legislation by possibly including dyslexia as part of a protected category, yet as a distinct category from disability
- 
- Solutions could be summarized with more information on dyslexia in order
  - to implement a standardised process
  - Development of a positive inclusion policy in each company

✓ For each part, we give

- Examples
- Testimony of the companies
- Question « truth or myth? »



Truth or Myth ?

People with dyslexia have a lower IQ than the norm.

**Wrong!** There is no correlation between intelligence and dyslexia!

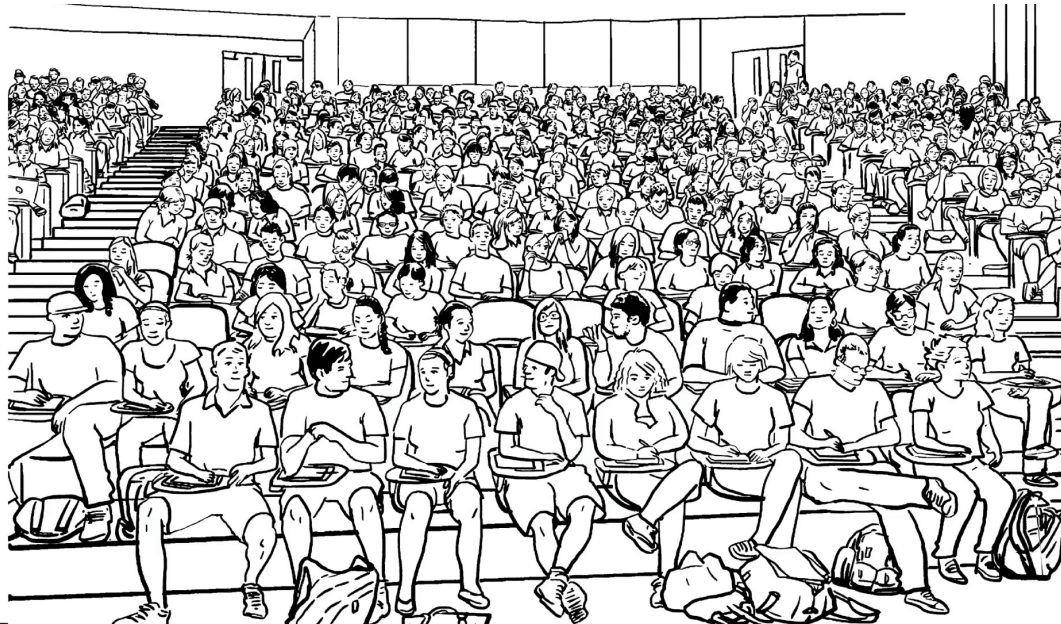


Testimony

“Dyslexic people are extremely creative, problem solvers, focused on solutions. Because they often worked so hard to achieve and developed coping strategies they can be an asset to any organization especially during the challenging times we face at the moment.”

(From a UK company interview of the project [dyslexia@work](mailto:dyslexia@work))

- ✓ The booklets are available on the project website and today in print version for the English and French versions
- ✓ Just a word about the MOOC « étudiants dyslexiques dans mon amphi, comprendre et aider »
  - A new edition is planned for January
  - Inscriptions are already open



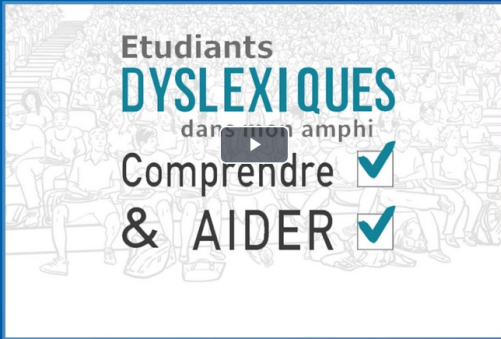
Education et formation
Sciences cognitives

## Étudiants dyslexiques dans mon amphi : comprendre et aider

Réf. 14006

🕒 Durée : 6 semaines
🕒 Effort : 12 heures
🕒 Rythme: ~2 heures/semaine

Sensibiliser les enseignants à l'accueil des étudiants dyslexiques, proposer des outils pour adapter ses enseignements.



**Inscription**  
Du 7 octobre 2021 au 16 mars 2022

**Cours**  
Du 18 janvier 2022 au 26 mars 2022

**Langues**  
Anglais

Vous êtes inscrit à cette session

Le cours commencera dans 3 mois

<https://www.fun-mooc.fr/fr/cours/etudiants-dyslexiques-dans-mon-amphi-comprendre-et-aider/>

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**Merci pour votre attention !**

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