Unit 1
IT at School

Dancing in all its forms cannot be excluded from the curriculum of all noble education; dancing with the feet, with ideas, with words, and, need I add that one must also be able to dance with the pen?

— Friedrich W. Nietzsche (German philosopher)

Education does not mean teaching people to know what they do not know; it means teaching them to behave as they do not behave.

— John Ruskin (British art critic)

Both education and learning are life processes, and they have no limit on when to start and stop. In our daily lives we learn new things and this helps us in changing the way we live. Education provides us with information, and then we have to learn and process this information for our own use. It is very important to make education accessible at any time to every one; this will help in reducing illiteracy. Information technology has the ability of speeding up information delivery, so this ability can be used in improving our education environment. With the implementation of information technology, costs of accessing educational material are cut down and it makes it easy for students to learn from anywhere.

Section
A

Pre-reading Activities

I. Read the procedures of creating a microlecture listed below. Sequence the numbers in front of each item in the way you think is the most reasonable.

1. Write a 15 to 30-second introduction and conclusion. They will provide the context for your key concepts.

2. Upload the video and assignment to your course-management software.

3. Record the main elements using a microphone and web camera. The finished product should be 60 seconds to 3 minutes long.

4. List the key concepts you are trying to convey in the 60-minute lecture. That series of concepts will form the core of your microlecture.

5. Design an assignment to follow the lecture that will direct students to readings or activities that allow them to explore the key concepts.

II. Work in pairs and discuss the following questions.

1. In your opinion, what is the most important part during the process of creating a microlecture?

2. If you were a teacher, what teaching materials would you like to show to your students through a microlecture?

3. Do you think it's a good idea to realize your academic development through the use of microlectures? Why or why not?

4. What are the advantages and disadvantages of using microlectures in classroom teaching?

Text A

Microlecture—Knowledge Burst

1. Haven't heard about the microlecture? The term is becoming quite popular among educators, especially those in large lecture classes. A microlecture is a short recorded audio or video presentation on a single, **precisely** defined topic. Used as a component of online, blended, or face-to-face teaching, these brief lectures can be **interspersed** with learning activities that **reinforce** lecture topics. Microlectures fall in line with the concept of "flipping" the classroom— changing the format of the classroom so that students complete their homework in class with instructors' support after watching the lecture at home. The **abbreviated** format of these lectures can be highly effective by attracting students' attention to a single topic for a short time, limiting the **opportunities** for not being **absorbed**. Because students control the playback, they can refer to the instructor's presentation as often as needed.

2. Now, most college students would likely **concur**—90-minute lectures can be a bit **tedious**, and many of them **confess** they suffer self-control **deficit** to be **competent** for a lecture with a traditional time **span**. With current research indicating that attention spans (measured in minutes) **roughly** mirror a student's age (measured in years), it begs the question as to the **rationale** behind lectures of such length.

3. Given that it is tough to prove the traditional lecture time frames, it is no surprise to see online educational programs seeking to offer presentations that distinguish between the traditional ways and shorter **podcasts**. But in an astonishing switch, David Shieh of the Chronicle of Higher Education recently took a look at a community college program that **features** a microlecture format, presentations varying from one to three minutes in length.

4. While one minute lectures might be beyond the **scope** of imagination for any **veteran** teacher, Shieh reported on the piloting of the concept at San Juan College in Farmington, N.M. The concept was introduced as part of a new online degree program in **occupational** safety last fall. According to Shieh, school administrators were so pleased with the results that they were spreading the micro-lecture concept to courses in reading.

5. The designer of the format, David Penrose, **proclaimed** that in online education "everybody involved is serious about the lecture and tiny bursts can teach just as well as traditional lectures when paired with **assignments** and discussions." The microlecture format begins

with a podcast that introduces a few key terms or a critical concept, then immediately turns the learning environment over to the students. "We didn't thrust it upon students. It's a framework for knowledge **excavation**. We're going to show you where to dig, we're going to tell you what you need to be looking for, and we're going to watch over that process." Penrose said.

6. Public microlecture site such as Khan Academy has made the microlecture format a familiar **staple** of informal learning, and colleges and universities are also equipping formal coursework with the microlecture coursework.

7. In 2009, an early example emerged at San Juan College, where brief recorded lectures, each with an introduction, a few key points, and a conclusion, were developed for a new online degree program. While the microlecture is still seen **primarily** as a tool for online learning, it is also seeing usage in hands-on activities in the classroom and lab.

8. At the University of Illinois at Urbana-Champaign, students in Animal Science learn the **adequate** technique for milking cows. Previously, the professor taught this skill by lecturing as he demonstrated the **exposure** procedure, but as class size grew, some students had to stand on tiptoe to see over the heads of their classmates. A microlecture and demo, delivered via iPad, provided **novices** at the dairy barn with effective one-on-one, on-location, just-in-time training. Surveys have indicated that particularly in large-enrollment courses, students appreciate the **flexibility** of microlectures, which allow them to revisit material as needed to reinforce learning.

9. Microlectures are easy to integrate into the courses because they can be used in a variety of ways and are short enough to fit almost anywhere. They can be posted as a trailer in a course site to be viewed by students before the course begins. Prior to class, they might introduce a topic, raise awareness, or **pique** curiosity. Afterward, they might cover points only touched on in the session lecture, going beyond the facts to explore the implied meaning. Activities or written follow-up assignments can be easily **condensed** in a microlecture to ensure that students understand the material presented. The briefness of the form gives instructors the ability to make quick fixes, adjusting or updating course content as needed. In some instances, particularly where they cover basic concepts, these brief lectures can be a reusable resource, available in more than one course or to more than one instructor. Where the content covers difficult concepts, students can view these lectures multiple times in a course, wherever repetition is useful to learning. For institutions or individual faculty members looking to move beyond traditional lecture format, microlectures offer a **beneficial** instructional approach.

10. Instead of the framework being defined by seat time, the microlecture format exceeds the traditional notion that all students are obliged to spend the same amount of time in class to receive credit. The concept focuses on what is to be learned and it allows, in the online environment, students of various skills and abilities as much time as they need to **digest** the learning objectives related to the microlecture.

11. Given such assets and positives, one would think the format would soon become a critical component of every online course.

(908 words)

Notes

Khan Academy: a non-profit educational organization created in 2006 by educator Salman Khan with the aim of providing a free, world-class education for anyone, anywhere. The organization produces short lectures in the form of YouTube videos.

Podcast: an audio file similar to a radio broadcast, that can be downloaded and listened to on a computer or MP3 player.

The Chronicle of Higher Education: a newspaper and website that presents news, information, and jobs for college and university faculty and Student Affairs professionals (staff members and administrators).

Community college: primarily two-year public institutions of higher education. Many community colleges also offer remedial education, GEDs, high school degrees, technical degrees and certificates, and a limited number of 4-year degrees. After graduating from a community college, some students transfer to a university or liberal arts college for two to three years to complete a bachelor's degree, while others enter the workforce.

San Juan College: a community college located in Farmington, New Mexico. Founded in 1956 as a branch of the New Mexico College of Agriculture and Mechanical Arts, San Juan College became an independent community college following a county election in 1981.

The University of Illinois at Urbana-Champaign: an institution which was founded in 1867 as a state-supported, land-grant with a threefold mission of teaching, research, and public service.

◀ New Words

precisely	/priˈsaisli/	*a.*	exactly; just 精确地；恰好
intersperse	/intəˈspəːs/	*vt.*	to vary sth. by placing other things at irregular intervals among it 点缀；散布
reinforce	/riːinˈfɔːs/	*vt.*	to give more support to (sth.); to emphasize 给……更多的支持；加强
abbreviated	/əˈbriːvieit/	*a.*	shortened 缩短的，缩写的
opportunity	/ɔpəˈtjuːnəti/	*n.*	[C, U] favorable time, occasion or set of circumstances 良机；机会
absorb	/əbˈsɔːb/	*v.*	to take (sth.) in; to suck up 吸收（某事物）；吸进
absorbed	/əbˈsɔːbd/	*a.*	with one's attention fully held 精神集中的

concur	/kən'kɜː(r)/	*vi.*	to agree; to express agreement 同意；意见一致
tedious	/'tiːdiəs/	*a.*	tiresome because of being too long, slow or dull; boring 令人厌倦的；烦人的
confess	/kən'fes/	*v.*	to say or admit, often formally (that one has done wrong, committed a crime, etc.) 承认；供认
deficit	/'defisit/	*n.*	[C] amount by which sth. is too small or smaller than sth. else 不足；缺少
competent	/'kɔmpitənt/	*a.*	(of people) having the necessary ability, authority, skill, knowledge, etc.（指人）有能力的；能胜任的
span	/spæn/	*n.*	[C] length of time over which sth. lasts or extends from beginning to end 时间段
roughly	/'rʌfli/	*a.*	approximately 大概地；大约地
rationale	/ræʃə'nɑːl/	*n.*	[C] fundamental reason for or logical basis of sth. 基本原理
feature	/'fiːtʃə(r)/	*vt.*	to give a prominent part to (sb./sth.) 给……以显著地位
		n.	[C] distinctive characteristic 特征；特色；特点
scope	/skəup/	*n.*	1. [*sing.*] range of matters being dealt with, studied, etc. 范围 2. [U] opportunity to do or achieve sth. 机会，余地
veteran	/'vetərən/	*a.*	with much or long experience 经验丰富的
		n.	[C] person with much or long experience, esp. as a soldier 经验丰富的人；老手；（尤指）老兵
occupational	/ɔkju'peiʃənl/	*a.*	of, caused by or connected with a person's job 职业的；职业造成的
proclaim	/prə'kleim/	*vt.*	to make (sth.) known officially or publicly; to announce 宣告，公布
assignment	/ə'sainmənt/	*n.*	1. [C] a task or piece of work that sb. is given to do, usually as part of their job or studies 工作，任务 2. [U] the act of giving sth. to sb.; the act of giving sb. a particular task 分派，布置
excavation	/ekskə'veiʃn/	*n.*	[U] activity of making (a hole or channel) by digging; removing (soil, etc.) by digging 挖掘
staple	/'steipl/	*n.*	[C] main or principal item or element 主要成分；主要内容
primarily	/'praimərəli/	*a.*	mainly 主要地
adequate	/'ædikwət/	*a.*	satisfactory in quantity or quality; sufficient 足够的，充足的
exposure	/ik'spəuʒə(r)/	*n.*	[U] the act of showing sth. that is usually hidden 显露
novice	/'nɔvis/	*n.*	[C] person who is new and inexperienced in a job, situation, etc.; beginner 新手；生手；初学者
flexibility	/ˌfleksə'biləti/	*n.*	1. [U] the ability to change to suit new conditions or situations 适应；灵活性 2. [U] the state of bending easily without breaking 柔韧性；弹性
pique	/piːk/	*vt.*	to arouse (a person's interest or curiosity) 引起

condense	/kən'dens/	*vt.*	to put sth. into fewer words 简缩；简述
		v.	to (cause sth. to) become thicker or more concentrated（使）变稠或变浓；浓缩
beneficial	/ˌbeni'fiʃl/	*a.*	having a helpful or useful effect 有益的；有用的
digest	/'daidʒest/	*vt.*	to take (information) in mentally; to fully understand 吸收；完全理解；彻底领会
		v.	to change (food) in the stomach and bowels so that it can be used by the body 消化（食物）

✿ New Expressions

fall in line with	be in agreement; not contradict sth. or each other 与……相一致；与……相符合
attract sb.'s attention	to arouse interest or pleasure in (sb./sth.) 吸引……兴趣
as to	with regard to sth.; regarding sth. 至于
distinguish between	to recognize the difference between (people or things) 区别，辨别
vary from... to...	change, esp. according to some factor 改变，变动
be pleased with	feeling or showing satisfaction or pleasure (with sb./sth.) 欣喜的，满意的，高兴的
be serious about	If you are serious about sth., you really mean it and are not joking or pretending. 对……是认真的
thrust sth. upon sb.	to force sb. to do or accept sth. 迫使某人做某事；迫使某人接受某事
equip... with	to provide sb. with the things that are needed for a particular kind of activity or work 装备……；配备……
prior to	before 在……之前
be obliged to	be compelled or required by law, agreement or moral pressure to do sth. 被强迫做……；被要求做……

Reading Comprehension

Understanding the text

I. Answer the following questions.

1. According to the text, what is a microlecture?

2. Why do microlectures fall in line with the concept of "flipping" the classroom?

3. What would most college students likely concur now according to the text?

4. With current research indicating that attention spans roughly mirror a students age, what question is aroused?

7

5. According to Shieh, what did school administrators at San Juan College do after the concept of microlecture was introduced to their college?

6. According to Penrose, instead of thrusting the knowledge upon students, what are teachers supposed to do during a microlecture?

7. How do the students in Animal Science at the University of Illinois learn adequate techniques through microlecture now?

8. According to the text, why are microlectures easy to be integrated into the curriculum?

Critical thinking

II. Work in pairs and discuss the following questions.

1. Have you ever participated in any form of microlecture? If yes, what do you think of it?

2. In your opinion, in what way can teachers improve the effectiveness of teaching?

3. How can students enhance their academic performance during studying process?

4. How can you improve yourself through microlectures?

Language Focus

Words in use

III. Fill in the blanks with the words given below. Change the form where necessary. Each word can be used only once.

deficit	brevity	exposure	condense	integrate
beneficial	competent	adequate	exceed	precisely

1. I think we can date back the decline of Western Civilization quite _____.

2. They have seen the change as unquestionably _____ to the country so they take a absolutely positive attitude towards it.

3. There's a(n) _____ of $3 million in the total needed to complete the project. How can you get that much money in such a short time?

4. All the candidates have been getting an enormous amount of _____ on television and in the press.

5. Little attempt was made to _____ the different parts into a coherent whole.

6. Most investigators _____ that certain facial expressions suggest the same emotions in all people.

7. Where payments _____ these limits they become fully taxable.

8. Most adults do not feel _____ to deal with a medical emergency involving a child.

9. People accused the ministry of failing to take _____ preventive measures to protect those war victims.

10. We have learned how to _____ serious messages into short, self-contained sentences.

Word building

The suffix *-y* can be added to verbs, nouns and adjectives to form new nouns. Nouns formed in this way refer to the circumstances, state, or conditions.

Examples

Words learned	Add *-y*	New words formed
minister	→	ministry
assemble	→	assembly

The suffix *-al* can be added to nouns to form adjectives. Adjectives formed in this way describe something that is connected with the thing referred to by the original noun. Sometimes, *-ial* is used instead of *-al*, especially for nouns ending in *-er*, *-or* and *-ent*. The suffix *-al* can also be added to verbs to form nouns.

Examples

Words learned	Add *-al* / *-ial*	New words formed
manager	→	managerial
editor	→	editorial
substance	→	substantial
survive	→	survival
tradition	→	traditional
margin	→	marginal

The suffix *-cy* can be added to adjectives and nouns to form new nouns. Nouns formed in this way refer to the state, quality, or experience described by the adjective or the noun. A final *t* or *te* is replaced by *–cy*.

Examples

Words learned	Add *-cy*	New words formed
consistent	→	consistency
accurate	→	accuracy

IV. Add -al / -ial, -cy, or -y to or remove them from the following words to form new words.

Words learned	New words formed
-y	
unite	
discover	
recover	
-al / ial	
clinic	
coastal	
norm	
influence	
memory	
finance	
-cy	
frequent	
efficient	
currency	