

Researching Classroom- based Formative Assessment: From Design to Analysis

第二届英语教学与测评学术研讨会

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GU Yongqi, Victoria University of Wellington, NZ

YU Guoxing, University of Bristol, UK

Overview

- 1. Classroom-based formative assessment: what it is/not**
- 2. Researching classroom-based formative assessment: what & how**
- 3. Analysing classroom data from FAR-funded research projects: identifying classroom-based assessment in action**
- 4. Open discussion, Q & A**

PART 1

Classroom-based formative assessment:

what it is and what it is not

How would you describe classroom-based formative assessment?

- What are the central characteristics of classroom-based formative assessment?
- Can you give/describe an example of classroom-based formative assessment?
- Does classroom-based formative assessment differ from language testing? If so, how?
- Why is classroom-based formative assessment important? For which purposes?
- **If you were observing a lesson, what would count as evidence of classroom-based formative assessment? – examples from ESRC+FAR**

Classroom-based formative assessment

- Teacher initiated/mediated
- Embedded in a particular instructional context (local)
- Defined in opposition to externally-imposed traditional large-scale examinations used for accountability purposes Davison & Leung (2009)
- Feedback is central to classroom-based formative assessment

Formative assessment and feedback (1)

- “Feedback given as a part of FA helps learners become **aware of** any **gaps** that exist between their desired goal and their current knowledge, understanding, or skill and **guides** them **through actions** necessary to obtain the goal”
- Formative feedback not only helps learners to become aware of the ‘gaps’ in the knowledge but it also provides them with **positive information** on their **improvements** and **attainments**.
- “Feedback *per se* is not formative [...] It is **uptake** of the feedback that contributes to whether **feedback** is **effective** in promoting processes of teaching and learning” (Rea-Dickins, 2003: 92)

Formative assessment and feedback (2)

- “Feedback, however detailed, will not lead to improvement until a pupil **understands** both **the feedback** and **how to use it** in the context of his/her own work” (Sadler, 1989; cited in Hall and Burke, 2003: 58)
- Formative feedback is **embedded** into classroom activities and thus it provides learners with extended **opportunities to interact** with a teacher and to **express** their **understandings** which, in its turn, according to Black and Wiliam (1998), may facilitate learning.
- “If the learner **generates** the relevant **information by him/herself**, the procedure is a part of **self- monitoring**” but “if the **source of information is external** to the learner (for example, the teacher), then it is associated with **feedback**” (Sadler, 1989).

Participation in classroom-based formative assessment – from teachers' perspectives

- **Sharing learning goals with learners;**
- **Providing formative feedback;**
- **Active teacher–learner and learner–learner interactions;**
- **Effective teacher strategic questioning and prompting;**
- **Adjustment of teaching and mediation of learning all the time during the lesson;**
- **Development of learners' skills through reflection (self-monitoring and peer- assessment);**
- **Provision of extended learning opportunities.**

Participation in classroom-based formative assessment - learner involvement (1)

Learners demonstrate their involvement by:

- directing a peer to do or say something
- encouraging a peer to do or say something
- evaluating and correcting a peer
- self-evaluating and correcting
- showing evidence of engagement in the activity
- checking of various kinds
- making analogies
- negotiating roles with a peer in working on an activity
- offering to do something within the activity

Participation in classroom-based formative assessment - learner involvement (2)

- rehearsing and repeating
- requesting teacher or peer assistance
- using the L1
- using gestures
- articulating aloud what they are actually doing or are going to do
- proceeding alone and progressing through the activity
- waiting to be prompted
- watching others

Classroom-based formative assessment as discourse

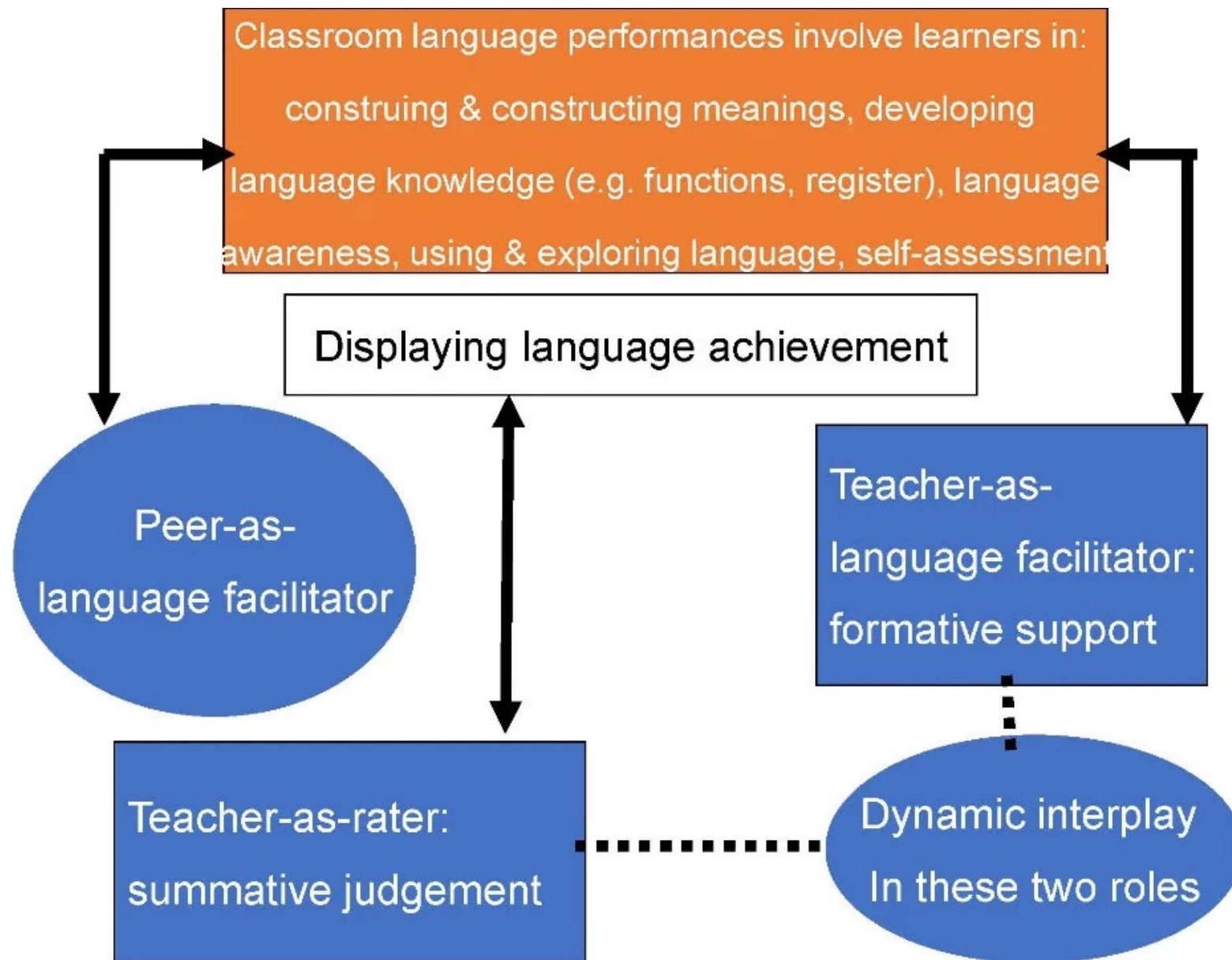
1. What kinds of **questions** do you ask in class?

In the transcripts provided, for each one:

2. What is the teacher trying to do with his questioning?

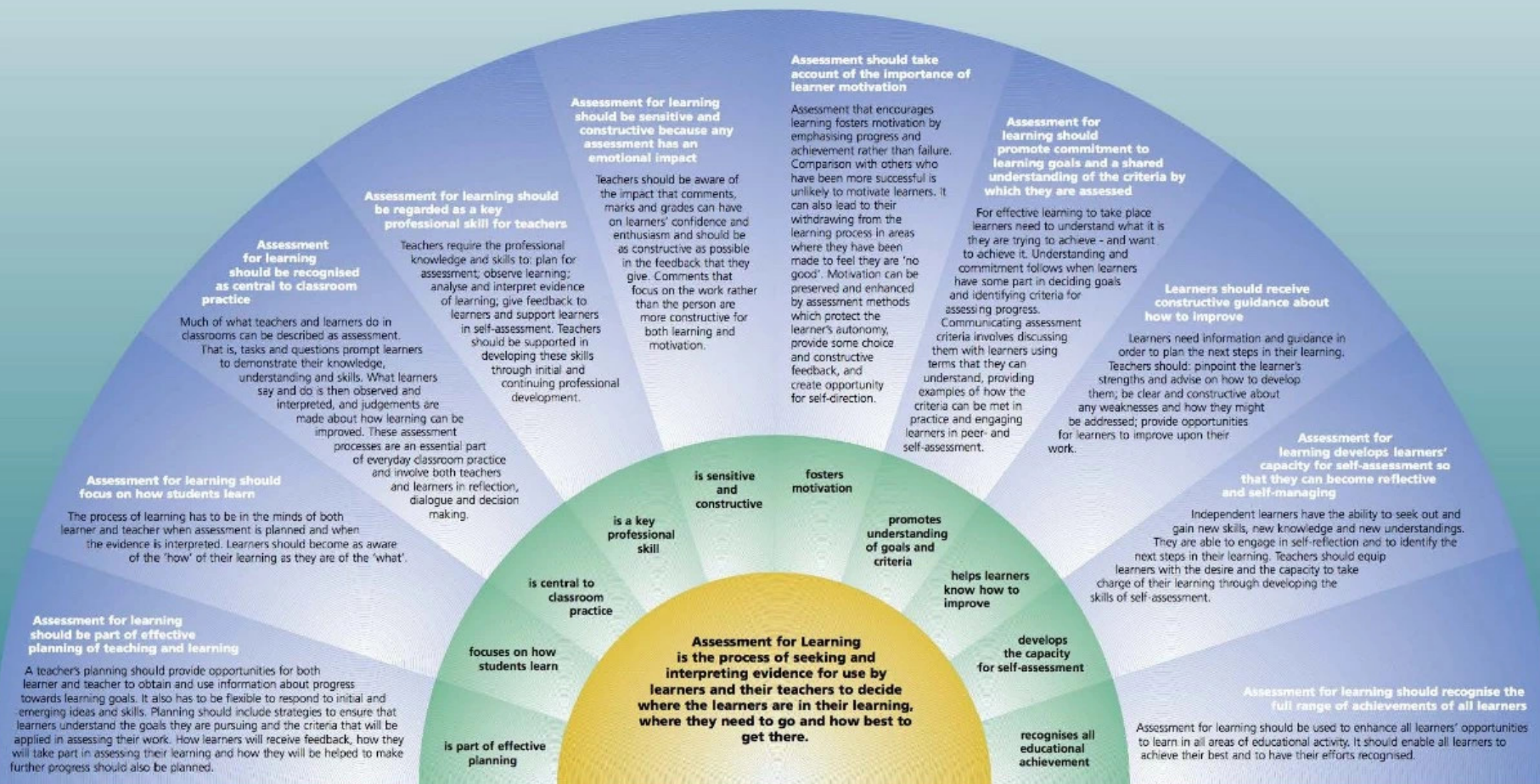
3. What do you think the lesson is like for the learners in the class?

NOTE: The transcripts were removed



Assessment for learning: 10 principles

- Assessment for Learning is the process of seeking and interpreting evidence for use by **learners and their teachers** to decide where the learners are in their learning, where they need to go and how best to get there.



Research-based principles of assessment for learning to guide classroom practice

Assessment for Learning

10 principles (1)

- AfL should be part of effective planning of teaching and learning.
- AfL should focus on how students learn.
- AfL should be recognised as central to classroom practice.
- AfL should be regarded as a key professional skill for teachers.
- AfL should be sensitive and constructive because any assessment has an emotional impact.

10 principles (2)

- AfL should take account of the importance of learner motivation.
- AfL should promote commitment to learning goals and a shared understanding of the criteria by which they are assessed.
- Learners should receive constructive guidance about how to improve.
- AfL develops learners' capacity for self-assessment so that they can become reflective and self-managing.
- AfL should recognise the full range of achievements of all learners.

PART 2

Researching classroom formative assessment:

what and how

Research project “generator”

- See [the “generator”](#) (open in another file)

Common types of research:

What

- Descriptive and exploratory
- Relationship
 - Correlational
 - Cause and effect
- Comparison

Questions to ask about the classroom formative assessment cycle: What

Steps in the assessment event	Teacher	Students
Learning target/ Success criteria	<ul style="list-style-type: none">• Is the teacher clear about long-term, mid-term, short-term goals for teaching?• How does the teacher make success criteria clear to the students?	<ul style="list-style-type: none">• Are the learners clear of their long-term, mid-term, and short-term goals?• Are the learners clear of success criteria for the task they are performing?
Elicitation	How does the teacher elicit evidence of student learning?	What do the students do to show their current level of performance?
Evaluation and interpretation	How does the teacher interpret the evidence of learning elicited?	Are the learners engaged in self-assessment and peer-assessment?
Feedback	How does the teacher provide feedback?	How is feedback received by the learners?
Follow-up	<ul style="list-style-type: none">• Is there follow-up action by the teacher?• What is done after feedback is provided?	What actions do the learners engage in to act on the feedback received?

Descriptive and exploratory research: How

How: collecting data

- Classroom audio/video recordings
 - Observation sheets
 - Teacher/Learner interviews
 - Journal logs
 - Lesson plans, exercise sheets, and other artefacts
 - Questionnaires (if large scale)
-

How: analysing data

- Coding and analysis of
 - discourse structures, e.g., IRF
 - activity types
 - elements of formative assessment
 - Descriptive statistics
-

Correlational research: how

How: collecting data	How: analysing data
Surveys Tests	Correlations Regressions

Cause and effect research: How

	How: collecting data	How: analysing data
Experimental	intervention, pre- and post-tests, plus control group comparison	Inferential statistics: e.g., t-test, ANOVA, ANCOVA, MANOVA
Action research	Innovation→observation→evaluation → CHANGE→observation→evaluation →CHANGE→ observation→evaluation...	<ul style="list-style-type: none">• Thick description and narration• Statistical comparison (if possible)

Comparison research: How

How: collecting data	How: analysing data
All comparable data types	Qualitative comparisons and Quantitative comparisons (t-test, ANOVA etc) between different groups (male vs female, high vs low proficiency; urban vs rural schools; etc.) and factors.

Part 3

**Analysing classroom data from FAR-funded research projects:
identifying classroom-based assessment in action**

Asking good research questions

- Research questions operationalise the research problem/issue.
- Research questions are concrete, focused, and empirically answerable.
- One way to ensure a good research question is to list the research methods you plan to use to answer this research question.

Distinguishing research questions from other questions

Types of questions	Research questions	Teaching questions	Literature review questions	Extension questions
Example	Does the keyword method lead to better vocabulary retention than the semantic map method?	How do I teach vocabulary?	What do the experts say about vocabulary learning?	What are the pedagogical implications of my study?

Research Questions: Study 1

Topic: 诊断性测评在高中英语阅读教学中的应用研究

Research Questions:

- (1) 如何在高中英语阅读教学中应用“优诊学”在线诊断性测评系统？
- (2) 教师和学生“对”“优诊学”在线诊断性测评系统的理解、态度、和评价如何？
- (3) “优诊学”在线诊断性测评在高中英语阅读教学中的应用效果如何？有何可以进一步改进的地方？

Study 1 RQs:

What's answerable, what's not

研究问题	Empirically answerable?	Potential data	Comment
(1) 如何在高中英语阅读教学中应用“优诊学”在线诊断性测评系统？	No		Teaching question
(2) 教师和学生“对“优诊学”在线诊断性测评系统的理解、态度、和评价如何？	Yes	Teacher interviews Student interviews Student questionnaire	Descriptive and exploratory
(3) “优诊学”在线诊断性测评在高中英语阅读教学中的应用效果如何？	Yes	Experiment (pre- and post-tests) Action research Observations Interviews	Cause and effect
有何可以进一步改进的地方？	No		Suggestions for future implementation, not RQ.

Research Question: Study 2

Topic:

诊断性测评用于高中英语阅读教与学的研究

Research Question:

如何使诊断结果更好地服务于阅读教学。

Study 2 RQ: Potential new RQs

研究问题	可回答？	Potential data	Comment
如何使诊断结果更好地服务于阅读教学。	No		Teaching question
Potential new RQ1: 诊断结果是什么？		Diagnostic test results	
Potential new RQ2: 基于诊断结果的阅读教学能够提高学生阅读成绩吗？		Intervention (e.g., feedback based on diagnosis) Reading test	

Research Questions: Study 3

Topic:

基于“优诊学”的诊断性测评在高中英语写作教学中的应用

Research Questions:

第一，诊断式测评“优诊学”的反馈是否有助于增强高中生的英语自主学习、包括提高学习写作微技能（如动词搭配，词汇和语法、篇章衔接等），进而提高英语写作水平

第二，高校和高中实验校协作开展研究的过程中教师测评素养的发展和影响。

Study 3 RQs

研究问题	可回答？	Potential data	Comment
第一，诊断式测评“优诊学”的反馈是否有助于增强高中生的英语自主学习、包括提高学习写作微技能（如动词搭配，词汇和语法、篇章衔接等），进而提高英语写作水平	Yes, but at least 2 RQs	Observations and recordings to obtain feedback data Pre- and post-tests for both autonomous learning and writing	RQ not focused enough
第二，高校和高中实验校协作开展研究的过程中教师测评素养的发展和影响。	Yes	Teacher interviews Classroom observations Action research	Not a question

Research Questions: Study 5

Topic:

Udig诊断测试用于高中英语续写和概要写作教学的研究

Research Questions:

1. 通过Udig诊断测试和评阅读写结合试卷，发现了学生在读写结合任务中存在哪些薄弱之处？
2. 依据学生在读写结合写作方面的薄弱之处，可以采取哪些措施来提升学生的概要写作和读后续写的表现？
3. 教学措施在提升学习者概要写作和读后续写方面的效果如何？

Study 5 RQs

研究问题	可回答？	Potential data
1. 通过Udig诊断测试和评阅读写结合试卷，发现了学生在读写结合任务中存在哪些薄弱之处？	Yes	Test tasks
2. 依据学生在读写结合写作方面的薄弱之处，可以采取哪些措施来提升学生的概要写作和读后续写的表现？	No	
3. 教学措施在提升学习者概要写作和读后续写方面的效果如何？	Yes	Experiment (pre-test, intervention, post-test) Action research

Research Questions: Study 6

Topic: 诊断性测评用于高中生英语综合语言运用能力的培养

Research Questions:

- 1) 基于诊断测评来发现高中英语教学和学习中的哪些微技能学习存在问题及成因？（优诊学测试；期中测试分析；学习策略问卷；教学日志；学生日志）
- 2) 解决这些问题的途径？（课堂观察；行动计划；学生日志；教学效果）
- 3) 哪些途径更具有效性？（教学日志；学生日志；优诊学测试结果分析）

Study 6 RQs

研究问题	可回答？	Potential data	Comment
1) 基于诊断测评来发现高中英语教学和学习中的哪些微技能学习存在问题及成因？	Yes	(优诊学测试；期中测试分析；学习策略问卷；教学日志；学生日志)	4 RQs
2) 解决这些问题的途径？	No? Yes?	(课堂观察; 行动计划；学生日志；教学效果)	No, if it means 'what should be done?'; Yes, if it means what has been done.
3) 哪些途径更具有有效性？	Yes	(教学日志；学生日志；优诊学测试结果分析)	

Research Questions: Study 7

Topic: 基于诊断测评的高中英语词汇教与学策略研究

Research Questions:

- (1) 英语诊断性测评的内涵与价值研究
- (2) 高中英语词汇教学的现状研究
- (3) 影响高中学生词汇学习的因素研究
- (4) 基于诊断性测评的教学改进研究
- (5) 基于诊断测评的学生词汇学习个案研究
- (6) 英语教学过程中的词汇诊断性练习的设计与应用研究

Study 7 RQs

研究问题	可回答？	Potential data	Comment
(1) 英语诊断性测评的内涵与价值研究	No		
(2) 高中英语词汇教学的现状研究	Yes	Classroom observations Interviews	Unrelated to assessment
(3) 影响高中学生词汇学习的因素研究	Yes	Interviews questionnaire	Unrelated to assessment
(4) 基于诊断性测评的教学改进研究	No?		Too general
(5) 基于诊断测评的学生词汇学习个案研究	Yes? But what for?	Case study	
(6) 英语教学过程中的词汇诊断性练习的设计与应用研究	No		

Research Questions: Study 8

Topic: 高中英语教师测评素养发展与提升研究

Research Questions:

- 1) 使用“优诊学”在线诊学系统的行动研究之前，40名高中英语教师对外语测评知识、课内外英语测评技能、测评方法、本学段英语课写作测评内容掌握如何？
- 2) 参加暑期教师发展及外语测评研修班、“优诊学”在线诊学系统、unipus线上课程或工作坊等交流学习，40名高中英语教师在英语写作测评素养方面有何变化？
- 3) “优诊学”在线诊学系统对提升、巩固、加强教师测评素养、提高学生英语写作能力有何帮助？
- 4) 使用“优诊学”在线诊学系统的行动研究之后，40名高中英语教师对外语测评知识、课内外英语测评技能、测评方法、本学段英语课写作测评内容掌握情况有何变化？
- 5) 本课题对发展与提升高中英语教师英语写作测评素养有哪些启示和建议？

Study 8 RQs-1

研究问题	可回答？	Potential data	Comment
1) 使用“优诊学”在线诊学系统的行动研究之前，40名高中英语教师对外语测评知识、课内外英语测评技能、测评方法、本学段英语课写作测评内容掌握如何？	Yes, but unfocused	Questionnaire Classroom observation Interview	too many questions in one.
2) 参加暑期教师发展及外语测评研修班、“优诊学”在线诊学系统、unipus线上课程或工作坊等交流学习，40名高中英语教师在英语写作测评素养方面有何变化？	Yes, but difficult to collect data for independent variables.	Questionnaire Classroom observation Interview	Hard to tease apart the relative effects of each independent variable

Study 8 RQs-2

研究问题	可回答？	Potential data	Comment
3) “优诊学”在线诊学系统对提升、巩固、加强教师测评素养、提高学生英语写作能力有何帮助？	Yes, but two RQs	Questionnaire Classroom observation Interview Reflective journal logs	
4) 使用“优诊学”在线诊学系统的行动研究之后，40名高中英语教师对外语测评知识、课内外英语测评技能、测评方法、本学段英语课写作测评内容掌握情况有何变化？	Yes	Longitudinal data, multiple data collection points Questionnaire Classroom observation Interview Reflective journal logs	Too many RQs in one
5) 本课题对发展与提升高中英语教师英语写作测评素养有哪些启示和建议？	No		Implications and suggestions, not RQs

Answering the research questions: An example

Study 4 诊断性测评用于高中英语词汇教与学的研究	如何运用诊断性测评促进高中英语词汇的教与学？ 为回答这个问题，本课题还需重点研究：
	1) 高中英语词汇教学的内容、过程和策略；
	2) 课堂测评工具的开发；
	3) 高中英语教师测评素养发展与提升。

Group discussion

Suppose this is your own research project:

1. What data would you collect to answer the research questions?
2. How would you analyse your data to answer the research questions?

Exploring assessment practices in one lesson

Exploratory and descriptive research questions:

1. What assessment practices can be found in this lesson?
2. How did the teacher elicit student understanding and learning?
3. What types of feedback were provided?
4. What follow-up actions were taken after the feedback?

Data: one video-taped lesson focusing on teaching vocabulary in writing

The screenshot displays the NVivo Pro software interface, which is used for qualitative data analysis. The main window shows a video player with a lesson titled "Classroom assessment 2018.mpeg - NVivo Pro". The video player is set to 100% display. The transcript on the right lists the following content:

Time	Timepan	Content
00	12:00.2 - 12:01.9	T: once again.
90	12:01.0 - 12:13.5	SS: (silent.)
91	12:13.5 - 12:17.6	T: I feel like sleeping more, yes?
92	12:17.6 - 12:17.7	SS: yes
93	12:17.7 - 12:21.0	T: but you should
94	12:21.0 - 12:30.0	S: Every time you feel sleepy and want to (...), you should remind yourself of, to get up.
95	12:30.0 - 12:33.2	T: good, and get up and?
96	12:33.2 - 12:36.9	T: take an exercise, for example, running, yes?

The interface also includes a left sidebar with "Sources" (Internals, Externals, Memos, Framework Matrices) and a bottom status bar showing "PC 4 items Nodes: 0 References: 0 Read-Only Unfiltered 10:05:7/41:51.1 41:51.1".

Transcribing the lesson

	Timespan	Content
1	0:06.4 - 0:15.2	S: stand up.
2	0:15.1 - 0:18.0	T: good morning everyone
3	0:18.0 - 0:19.8	SS: good morning professor
4	0:19.8 - 0:34.9	T: (in audible) As you know, everyone wants to live a healthy life. but, why? because without a healthy body, not is impossible. yes?
5	0:34.8 - 0:36.2	SS: yes.
6	0:36.2 - 0:52.7	T: but how? can you give me some suggestions? there is no need to put up your hand, just stand up.

Lesson transcription

Analysing the lesson

- Analysing the lesson

Lesson structure				Classroom formative assessment		
Turn	Time	Activity	Discourse pattern	Elicitation of understanding or learning	Feedback	Follow-up
4-18	2 min	Warm up: Ask students to brainstorm on a healthy life style	T→SS, T→S, SS→T, S→T	Questioning	Confirm: 'yes', 'ok', 'that's right' Praise: 'you are the best'.	Nil
19-23	1 min	Read Li Hua's letter pleading for help	T→SS, T→S, SS→T, S→T	<ul style="list-style-type: none"> • Read aloud • Questioning (Is it clear?) 	Praise: 'Your tone and pronunciation is amazing'	Nil

Short-, medium-, and long-cycle lengths for formative assessment

Type	Focus	Length
Long-cycle	Across marking periods, quarters, semesters, years	4 weeks to 1 year
Medium-cycle	Within and between instructional units	1 to 4 weeks
Short-cycle	Within and between lessons	Day by day: 24 to 48 hours Minute by minute: 5 seconds to 2 hours

(William, 2010, p. 30)

Findings: Planned and unplanned classroom assessment

- Planned (Medium-cycle):
 - After analysing Udig results, design lessons to improve on the weak areas
 - self- and peer assessment plus teacher modelling, making scoring criteria clear
- Unplanned (short-cycle):
 - eliciting students' understanding and performance through whole class questioning and observing individual or group performances
 - Feedback: confirming and praising (evaluative) were the most common; focus on form was mainly done through raising the students' awareness by commenting on the importance of the target vocabulary items. Very few instances of negative (corrective) feedback. Even the only 'recast' was not a recast of an error. It was simply saying the same thing in another way.
 - Follow-up activities were very limited, probably because of the fact that the teacher was targeting practice and use of the vocabulary items, rather than individual forms. The only instance that can be regarded as a follow-up activity was a planned activity to let students write the letter of advice using the targeted vocabulary.

Part 4

Open Discussion

Q & A

Thank you!

Email:

Peter.Gu@vuw.ac.nz

Guoxing.Yu@Bristol.ac.uk