



A Case Study of Formative Course Evaluation by Diary Approach

Yan Shen^(✉)

Shanghai University of Political Science and Law, Shanghai, China

yannickshen@shupl.edu.cn

Abstract. To collect off-line out-of-class data on student engagement in learning has always been a challenge in formative course evaluation. This paper attempts to use the diary approach to collecting off-line data for formative evaluation of an EFL course and, by doing so, to understanding student engagement in the course out of class. Twenty-five sophomores took part in this evaluative case study. The results showed diaries were capable of capturing students' recurrent and routinized learning practices out of class together with their learning-related affective reaction. Data collected from student learning diaries were valuable for formative course evaluation for improvement purposes.

Keywords: Formative course evaluation · Diary approach · Off-line data · Student engagement

1 Introduction

Course evaluation is an ongoing and iterative process that functions to improve the efficiency and effectiveness of the curriculum [5] by obtaining the right amount of information to ensure valid decision making that leads up to high quality teaching. It helps to improve teaching practices and student learning experiences by investigating the strengths and weaknesses related to courses, and lending insights into the extent of student learning and progress [6], student motivation, their changing needs [8] and gains, thus enabling informed decisions about course design, amendments and development. To offer the greatest scope for improvement, many researchers and practitioners hold, course evaluation should be done formatively at multiple time points [4]. Meanwhile, increasing evidence in educational evaluation supports that evaluations should be learner-focused so that teaching and learning activities can be improved to better support desired learning outcomes [7]. While classroom observations, and, with the increasing integration of technology and education, LMS are capable of collecting data on student learning sustainably, to collect offline and out-of-class data from learners over time is a challenge. This paper aims to evaluate an EFL course with the diary approach, and by doing so, to bring some insights into data collecting for formative course evaluations.

This paper is funded by SHUPL university program grant (grant number 2021XJ10).

© The Author(s) 2023

A. Volodin and I. Roumbal (Eds.): ICECIDT 2022, ASSEHR 677, pp. 259–267, 2023.

https://doi.org/10.2991/978-2-494069-02-2_29

Diaries, as a research instrument to collect detailed information about individuals' behaviour and habits, have a number of advantages: Diaries can provide more accurate data; depending mainly on short term memories, they can minimize the occurrence of recall error plaguing most self-report methods. Diary keeping is less confined by time and space than other research methods; once clearly instructed, respondents can maintain and update their diary at their convenience over time. Diaries are context-specific; by reporting the completed learning activities, the data provided are more authentic and pertinent [1, 9]. By analyzing the collected student diaries, the paper attempts to answer the following research questions:

- To what extent are the participants engaged in the learning activities of the course?
- What are the participants' perceived strengths and their concerns of the course?
- Are there any implications for formative course evaluations?

2 Methods

2.1 Participants

A class of 25 sophomore students taking the EFL lectured by the author was purposefully selected as participants in this course evaluation (one student registered into a different class in the second week). This class was selected out of two considerations: first, as the sophomore students had taken the EFL for one year, they were assumed to be informative; second, this class was composed of sophomore students taking the course for the first time and as a compulsory, so data collected were believed to be more representative.

2.2 The Diary Method

This course evaluation was conducted during the beginning two weeks of the semester to inform timely adjustment in course design. The diary method was administered to collect rich data on student learning experiences. Unstructured event-contingent recording was used in this course evaluation, where students were required to record their IEC-related learning activities, together with their reflections if possible, every time the event under investigation took place. To combat diary errors of incomplete recording, under-reporting or inadequate recall [3], prompts were provided for the students together with a sample entry. A three-day pilot was carried out to make sure student diaries provided information as needed and to find out problems in practice and make timely adjustments. Twenty-three students submitted their pilot diaries in 28 entries and reported their work on the IEC. The pilot results showed students understood well what they were expected to record. The diary-keeping period continued for two weeks, covering the whole duration of Unit 1 in the course book. As the following units are organized in the same structure, the two weeks' period is assumed long enough to produce sufficient information about student learning experiences related to the course. To ensure students updated their diary timely and regularly, diaries were collected three times, besides the pilot, diaries were also collected at the end of each week of the diary keeping period. Forty-nine entries from 20 students were collected the second time, and 65 from 20 students the last

time. To encourage student cooperation and enthusiasm, timely responses were given to students concerning the diary quality, their encountered difficulties in learning or their suggestions after the diaries were collected each time. When all the diaries had been collected, all the entries were numbered in Roman numerals. The diary entries were coded with Atlas.ti 8. 4. 18.

2.3 Content Analysis

As the purpose of this course evaluation is to inform teaching practice based on the current course-related practices, content analysis is appropriate as an analytic tool by demonstrating the existing teaching and learning practice patterns through frequency description. Diary entries from the three-day pilot were used to develop a coding scheme and test out coding and categorization. When the first unit was completed and all the entries were collected, all the entries were coded according to the scheme worked out in the pilot and amendments were made where necessary. To maximize the extent to which the analytical categories could be responsive to data, no pre-existing categories from the extant literature was referred to. All the sub-categories and categories emerged from the codes. The frequency of the categories and sub-categories were then counted. The relationship between categories was examined to ensure semantic coherence and data-richness [2]. To ensure reliability, the coding and evaluation results were presented to the student participants for member-check, and group discussions were held for confirmation and further explanation of the findings from the participants where needed.

3 Results and Discussions

A total of 150 codes were developed from 142 entries, among which 18 were the dates and 1 was discarded because it didn't fit into any category. Six main categories, made up of by 47 sub-categories, emerged from the 131 codes, as presented in "Table 1", which correspond to the research interests in learner-focused course evaluation in existing literature and address the evaluation questions of this course evaluation as in Table 1.

3.1 The Extent of Student Engagement in Course-Related Learning Activities

An examination of the number of entries produced each day during the 18 days' diary-keeping period in "Fig. 1" in the Appendixes reveals that on average the participants worked on the course about 6 times throughout the whole period. Learning activities rise before or on the day of the class, which are on Wednesday and Friday that semester. Category 1 in "Table 1" further indicates that more than 75% of the student participants spend no more than an hour each time on the course-related learning activities after class. However, whether the participants have enough exposure to the target language is hard to judge given that they have other language-related courses and their time spent on the other courses is not examined.

Category 2 in "Table 1" shows that working on language knowledge of lexical and structural items takes up almost half of the course-related learning activities by the participants, with vocabulary-learning the most focused learning activities, accounting

Table 1. Summary of categories and sub-categories emerging from student diaries

Categories and subcategories	frequency	% of the category	% of the total
1. Time spent on IEC-related learning activities after class (hour/time)	101	(100)	(13.27)
Less than 0.5 h	31	(30.69)	
About 1 h	46	(45.54)	
About 1.5 h	13	(12.87)	
About 2 h	11	(10.89)	
2. Focused learning activities by students	211	(100)	(27.73)
Essay-writing	31	(14.69)	
grammar	27	(12.80)	
listening	22	(10.43)	
reading	15	(7.11)	
pronunciation	3	(1.42)	
the text in the course books	31	(14.69)	
translation	7	(3.32)	
vocabulary	75	(35.55)	
3. Learning approaches adopted by students	257	(100)	(33.77)
Doing exercises in the course books	72	(28.02)	
Generating rules of learning and developing interest in learning	2	(8.00)	
remembering definitions, collocations and synonyms*	12	(4.67)	
Enhancing impression by note-taking and repetition*	9	(3.50)	
Making adjustments to schedules and learning approaches	16	(6.23)	
Making use of learning resources	39	(15.18)	
Making use of mother tongue*	14	(5.45)	
Making use of the context*	8	(3.11)	
Preparing and reviewing	63	(24.51)	
Reflecting on learning experiences	7	(2.72)	
Setting goals and making plans	15	(5.84)	
4. Student perceived IEC strengths	44	(100)	(5.78)
Efficient arrangement of teaching activities	12	(27.27)	
Feeling of being supported	19	(43.18)	

(continued)

Table 1. (continued)

Categories and subcategories	frequency	% of the category	% of the total
Improved performance	2	(4.55)	
Improved understanding	11	(25.00)	
5. Student concerns and worries	120	(100)	(15.77)
Inadequate grammatical knowledge	14	(11.67)	
Lack of appropriate learning approaches	17	(14.17)	
Limited English learning aptitude	4	(3.33)	
Limited proficiency in essay writing	17	(14.17)	
Limited proficiency in listening	6	(5.00)	
Limited proficiency in reading comprehension	10	(8.33)	
Limited proficiency in translation	6	(5.00)	
Limited vocabulary size	22	(18.33)	
Low efficiency in learning	20	(16.67)	
Workload	4	(3.33)	
6. Student needs	28	(100)	(3.68)
To cut down workload	1	(3.57)	
To enrich learning resources	3	(10.71)	
To have more individualized feedback on assignment	7	(25.00)	
To achieve fluency	1	(3.57)	
To build up vocabulary	1	(3.57)	
To have a better command of grammar	4	(14.29)	
To improve translation skills	1	(3.57)	
To enhance reading proficiency	2	(7.14)	
To enhance proficiency in essay-writing	7	(25.00)	
To slow down for note-taking	1	(3.57)	
total	761		100
*vocabulary learning approaches			

for 35.55% of all the 8 learning activities reported in their diary. The students explicitly expressed their awareness of the importance of vocabulary in learning a foreign language. Besides, the students also attach more attention to the text in their course books (the text in the course book is the main teaching media in class; it is used to assist the students to familiarize vocabulary, grammar and rhetorical devices, practice language skills of paraphrasing, translation and reading, and most important of all, to promote deep learning of understanding and meaning-making) and essay-writing, spending much time preparing for and reviewing the text, and writing and revising their essays. In contrast,

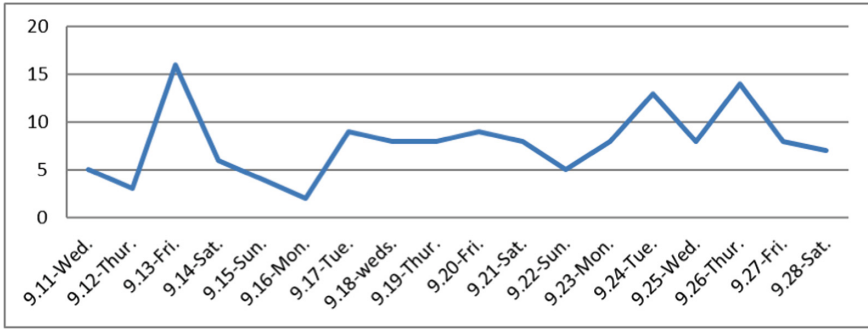


Fig 1. The total number of diary entries for each day.

they make the least effort to improve their pronunciation; however, they expressed a desire to improve their speaking fluency.

Eleven learning approaches used by the participants were identified from the student diary, as is shown in Category 3. The most frequent practice coded is doing exercises in their course books, mostly drills for enhancing language knowledge and developing language skills in dictation, translation, reading and writing, covering most of the participants’ learning activities illustrated in Category 2. The student participants mainly use cognitive approaches like rote-learning, note-taking, repetition and making use of their mother tongue and the context to learn and build up their vocabulary. A close look at Categories 3 indicates that the student participants have a strong inclination to rely on their mother tongue in vocabulary learning, which is the most frequent cognitive strategy coded in relation to vocabulary learning. In addition, the participants are also found to apply meta-cognitive strategies and resource management strategies to facilitate and enhance learning: They are in a good habit of preparing for what they are going to learn and reviewing what they have learned; they often make use of the available learning resources such as references, online resources, language learning Apps, library resources, etc. However, among all the approaches adopted, none is social or affective.

3.2 Students’ Perceived IEC Strengths and Their Concerns and Needs

Rarely as improved performance was reported in the diary, which may be because the course evaluation was carried out at the beginning of the term, the participants did report, as is presented in Category 4, that the course brought them a better understanding of the language knowledge and helped straighten out their puzzles. The participants approved of the way the course was arranged, believing the classes were efficient by providing them with the vocabulary list of high-frequency words in the text before class, making use of the WeChat group to solve their puzzles real time and using the writing website to help check errors and improve expressions in their essays. Most importantly, the participants felt they were supported.

Nonetheless, a fair number of concerns and worries were also expressed by the participants in their dairy and are presented in Category 5, which accounts for 15.77% of the total frequency coded, ranking the third in frequency after learning approaches,

33.77%, and focused learning activities, 27.73%. The biggest concern of the participants is with their limited linguistic knowledge and language skills of English, among which their worry about the small vocabulary size ranks the highest, limited writing skills the second, and an inadequate command of grammar the third. The participants' second biggest concern is their low efficiency in learning. A case in point is that they make a lot of effort to learn vocabulary, but they still feel their small vocabulary size is a major hindrance for them to read and write efficiently. The participants' lack of appropriate learning approaches, their third biggest concern, can also be a cause of their low efficiency. Their failure to work out an appropriate schedule and work by it is the most frequently mentioned problem concerning learning approaches in the diary entries. Student assignments testified that some of the participants failed to complete their assignment in time as required simply because they forgot it.

Accordingly, the most frequently expressed need in the student diary, presented in Category 6, is to enhance their English proficiency. The most urgent student need is to develop essay-writing skills, and the second to have a better command of grammatical knowledge, though limited vocabulary size is the biggest concern expressed by the participants. This may be explained by the ultimate purpose for learning English. That is, to use the language, rather than just to know it. A second explanation may be essay-writing, like listening, is one of the most challenging parts in exams. However, via proper training writing skills can somewhat be improved fast within limited time, therefore it is more amenable to develop writing skills than listening skills. The participants also hope to have more individualized feedback on their assignment, esp. With reference to their essays and translation, for they feel hard to judge the quality of their work by referring to the reference answers by themselves. In addition, they wanted to have more diverse learning resources to enrich learning activities.

3.3 Implications for Qualitative Course Evaluation

Formative course evaluation taken at the early session of the course can expand the utility of the evaluation outcomes. It enables the teachers to be aware of the areas of improvement as early as possible and allows them to have ample time to make adjustments in their teaching practice and ensure a good fit between teaching and the student needs. However, by evaluating a course at the beginning of it, it is impossible to measure how teaching and the adjustments made produce the desired outcomes. Therefore, follow-up evaluations are necessary if effectiveness is to be measured and further adjustments are to be made.

Diary studies, an introspective research method, have been long employed in researches of L2 learning to investigate learners' behavior, affective states, needs, etc. Different from interviews that are directed by the interviewers or questionnaire surveys whose questions are pre-defined, unstructured diaries allow diarists to enjoy the freedom as to what to report and how to report it, therefore, enabling researchers to capture, to the greatest extent, what the participants are actually doing, how they do it and what they really care about. However, as a result of such freedom, researchers may fail to collect data as planned. In the case of this course evaluation, even though students were provided with prompts, some important aspects concerning a course, such as assessment, learning environment, etc., were not mentioned at all by the diarists. Besides, diary research is

time-consuming and labor-intensive. The existing literature suggests a common practice of at least 7-day diary keeping period for diaries to produce useful information [9]; in this course evaluation it lasted 18 days to record student learning activities in a complete unit. The same as dealing with the interview transcripts, coding is laborious. In addition, to ensure the quality of the diaries, efforts should also be made to build trust and rapport with the participants to encourage them produce entries as detailed as possible and to remind them constantly of keeping their diaries timely and regularly. Therefore, unstructured diary approach may not be feasible to evaluations with a tight schedule or a large sample size.

4 Conclusion

Course evaluation for improvement purpose should be learner-centered. Student diaries, as the major instrument for data collection, make it possible to capture the recurrent and routinized student engagement in off-line learning activities out of class. When these data are pooled together with those collected by classroom observation and from LMS, we can have a holistic understanding of student learning practices and their feelings and needs related to a course. Though data produced from diaries didn't cover all the aspects concerned in a course evaluation, they suffice to lead to well-informed and most pertinent adjustments for the improvement purpose. By timing the evaluation at the beginning of the course, ample time is allowed for the utilization of the evaluation outcomes. What is worth mentioning is that the active and collaborative participation in the evaluation by both the teacher and the students promotes student engagement in the course.

Authors' Contributions. This paper is independently completed by Yan Shen.

References

1. Beckers, B., T. Voordt, and G. Dewulf. 2016. Why do they study there? Diary research into students' learning space choices in higher education. *Higher Education Research & Development* 35 (1): 142–157. <https://doi.org/10.1080/07294360.2015.1123230>.
2. Cohen, L., L. Manion, and K. Morrison. 2011. *Research Methods in Education*, 7th ed. Abingdon: Routledge.
3. Corti, L. 1993. Using diaries in social research, Social Research Update, 2. <http://sru.soc.surrey.ac.uk/SRU2.html>.
4. Fisher, R., and D. Miller. 2008. Responding to student expectations: A partnership approach to course evaluation. *Assessment & Evaluation in Higher Education* 33 (2): 191–202. <https://doi.org/10.1080/02602930701292514>.
5. Nicolaou, M., and M. Atkinson. 2019. Do student and survey characteristics affect the quality of UK undergraduate medical education course evaluation? A systematic review of the literature. *Studies in Educational Evaluation* 62: 92–103.
6. Nguyen, T., and K.A. Foster. 2018. Research Note—Multiple Time Point Course Evaluation and Student Learning Outcomes in an MSW Course. *Journal of Social Work Education* 54 (4): 715–723. <https://doi.org/10.1080/10437797.2018.1474151>.
7. Praslova, L. 2010. Adaptation of Kirkpatrick's four level model of training criteria to assessment of learning outcomes and program evaluation in higher education. *Educational Assessment, Evaluation and Accountability* 22: 215–225. <https://doi.org/10.1007/s11092-010-9098-7>.

8. Steyn, C., C. Davies, and A. Sambo. 2019. Eliciting student feedback for course development: The application of a qualitative course evaluation tool among business research students. *Assessment & Evaluation in Higher Education* 44 (1): 11–24. <https://doi.org/10.1080/02602938.2018.1466266>.
9. Wiseman, V., L. Conteh, and F. Matovu. 2005. Using diaries to collect data in resource-poor settings: Questions on design and implementation. *Health Policy and Planning* 20 (6): 394–404. <https://doi.org/10.1093/heapol/czi042>.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

