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# How interactive discussions support writing development: the application of Dynamic Assessment for learning Chinese rhetoric

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## Abstract

**Background:** This study examined the use of student-teacher interactions through dynamic assessment (DA) to diagnose and promote the learner's comprehension on Chinese writing patterns. Debates over the uses of standardized tests to assess language learners' performance have been ongoing in the field of second language acquisition for many years. Concerned with the emergence of learners' new capabilities, DA aims to provide insights that are more likely to be missed by mainstream assessments.

**Methods:** This qualitative case study explored the role of interactionist DA in the development of conceptual L2 writing skills. Three intermediate L2 Chinese learners participated in an eight-week tutoring session that focused on Chinese rhetorical styles. They then engaged in collaborative tutorial sessions with the teacher and received feedback based on the DA principles. The student-teacher interactions were recorded, transcribed, and analyzed.

**Results:** The results revealed that teachers' dialogic mediations support learners' development in many substantial ways, such as to understand and promote learners' L2 development. All participants were able to apply appropriate Chinese rhetorical structures to complete the writing tasks. One example of the teacher's inappropriate mediation that failed to promote development was also found.

**Conclusion:** The findings demonstrated that the interactionist DA approach promoted language development and extended learners' ability beyond a given pedagogical task. Examples of dialogic mediation also showed the ways of providing appropriate mediation that is attuned to the learner's zone of proximal development. In addition, the study has implications for writing assessment practices and future research of DA praxis.

**Keywords:** Dynamic assessment, Sociocultural theory, Interaction, Zone of proximal development

## Background

Against the debates in many nations over the uses of large-scale standardized tests, dynamic assessment (DA) has begun to attract attention as a conceptualization of assessment that provides insights that are difficult to obtain through most other approaches. It differs from other mainstream psychometric assessments in that it aims to offer an interpretation of learners' development, including the current performance level and future potential abilities. Drawing from Vygotsky's (1978) proposal of the zone of proximal development (ZPD), DA unifies assessment and instruction through

teachers' interactive prompts and support that are offered slightly beyond learners' current performance. This assessment tool has gained momentum in research (Poehner 2011; Poehner and van Compernelle 2011; Tzurriel 2013; van Compernelle and Williams 2013) and has also been applied to classroom-based assessment (Ableeva 2008; Antón 2009; Hidri 2014; Panahi et al. 2013; Poehner and Lantolf 2013).

Two versions of DA have been distinguished: interventionist and interactionist approaches. Interventionist DA is closer to traditional assessments and other psychometric methods of assessment (i.e., IQ tests) in that it provides standardized administration procedures but includes forms of support (i.e., mediating prompts). In other words, the assistance is usually tightly scripted, created in advance, and provided through a series of hints or prompts that go from the most explicit to the most implicit (see, for example, Antón 2009; Kozulin and Grab 2002; Lantolf and Poehner 2010).

Though interventionist DA provides quantifiable results for standardization and further generalization, assistance delivered in this approach does not always respond to learners' needs in a timely manner. The interactionist DA approach, in contrast, provides assistance emerging from the interaction between the teacher and the learner and thus is highly sensitive to the learner's ZPD. This approach allows the teacher to qualitatively assess the development of an individual learner or even a group of learners to clearly identify a problem, to establish a prognosis, and to provide fine-tuned assistance (i.e., instruction) that is suited to the learner's ZPD. It is also flexible in its administration procedures and does not limit the types of assistance available to help in the learner's development. However, the interactionist approach has been criticized because it is "labor-intensive, time-consuming, and, perhaps, difficult to carry out in large programs" (Antón 2009). Little DA research has explored the importance of the teacher's mediation in assessing a learner's L2 development (e.g., Ableeva 2008; Hidri 2014; Poehner 2005). The present study aimed at investigating the extent to which interactionist DA could help intermediate Chinese learners develop conceptual understanding of Chinese rhetoric. In addition, the study explored DA's potential to promote language learners' ZPD and their future agency and independence through student-teacher interactions.

### **Dynamic assessment**

DA is an innovative assessment tool that has recently been discussed and applied in various fields of education. It has developed as an alternative to 'traditional' types of assessment, namely, standardized tests. The goal of DA is not intended as a replacement for other types of testing but as a complement to them. First developed by Feuerstein in the early 1950s to estimate the learning potential of low-performing children (Feuerstein et al. 1979), it has since been mainly applied to assessment of cognitive development potential by psychologists (Lidz 1987, 1991; Lidz and Elliott 2000). DA practices have its roots in Vygotsky's theory of cognitive development and his notion of ZPD (Minick 1987; Vygotsky 1978).

### **The role of ZPD**

Vygotsky defines the ZPD as

*“the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers”*

(Vygotsky 1978 p. 86, italics in original).

In this sense, ZPD represents a powerful way of thinking about both the products of past development – the development that has been completed at the present and that can be inferred from an individual's independent performance – as well as cognitive functions that have not yet fully developed but are still in the process of forming. In addition to reveal an individual's present performance, the explanatory power of ZPD is to give qualitative description as to uncover learners' *actual* level of development, and to assess their *proximal* level of development.

As illustrated, ZPD describes the distance between an individual's actual performance and his learning potential when under other expert's guidance. How to define an individual's performance and growth needs to rely on the interaction that is happened between the teacher/mediator and the learner in a ZPD context. Mediated Learning Experience (MLE) interaction is the key component in Feuerstein's theory of Structural Cognitive Modifiability (SCM) theory (Feuerstein et al. 1979), which emphasizes that human beings can developed in a variety of ways depending on the presence and the quality of appropriate forms of interaction and instruction. Feuerstein explained mediation in two ways: non-mediated and mediated learning. In direct, non-mediated learning, the child interacts with his environment in a trial-and-error, experimental manner. This type of learning closely resembles the stimulus–response conditioning model of the behaviorist paradigm. The child becomes too used to the here-and-now situation to interpret the world or to construct meaning in a way that will allow him to see connections between events, situations, and individuals (Poehner 2008). In mediated learning, the stimulus–response model is altered so that the child is no longer interacting with his environment in a direct, haphazard fashion. Instead, an adult or more competent peer enters into a relationship with the child and “selects, changes, amplifies, and interprets objects and processes to the child” (Kozulin 1998, p. 60).

Feuerstein explains the benefits of engaging children in mediated learning as follows:

*The more a child is subjected to mediated learning experiences, the greater will be his capacity to benefit from direct exposure to learning. On the other hand, a lack of MLE will produce an individual who will benefit very little from direct encounters with learning tasks.*

(Feuerstein et al. 1988, p. 58)

For Feuerstein, the MLE is the very heart of DA. During a MLE, the mediator's goal is to diagnose the child's potential for cognitive change. Therefore, while engaging in a task with a learner, the adult mediator pays attention to the learner's responsiveness to mediation and making changes accordingly. The mediator would provide as much assistance and as many forms of assistance as possible to meet the goal of assessing learner's potential in learning. In Vygotskian terms, the learner's social interaction with the mediator provides a model that the learner can imitate and transform, developing beyond his current capabilities, or beyond his ZPD.

Poehner (2008) indicated that the MLE procedure could be actually accomplished during the assessment itself; in other words, to allow the teacher/assessor to interact with learners while they are undertaking either classroom-based or standardized assessments. The assessor guides learners in highlighting important content, making connections, setting goals, planning, regulating, and controlling behavior, etc. The criteria for

DA depend on the degree to which the learner changes and the assistances required to bring about that change are both crucial components of the diagnosis.

In sum, DA is an effective alternative assessment, compared to conventional one, which can not only allows teachers to understand the actual level of learners' abilities, but also, more importantly, to reveal their potential abilities that 'are now in the state of coming into being, that are only ripening, or only developing'(Lantolf and Poehner 2004). A fundamental difference of DA with non-dynamic types of assessment is the active role taken by the teacher/assessor during the testing situation. DA overcomes the assessment–instruction dualism by unifying them according to the principle that interaction between the teacher and learners happened during the administration of assessment is necessary to understand the range of an individual's functioning, and to guide learners to further develop future potential. That is, it is a means of accessing and at the same time promoting the process of development rather than focusing on its product, as happens in more conventional assessments.

### **Significance of the study**

The present study contributes to the DA research in three important respects. First, the study applies the interactionist rather than the interventionist approach to writing skills. Although the interventionist DA approach provides quantifiable results and objective views on students' development, it does not respond to a learner's needs in a timely manner. The interactionist approach allows assistance to emerge from the interaction between the teacher and the learner and is therefore highly sensitive to the learner's ZPD. Second, previous DA research has been applied in various L2 contexts, such as learning French verbal aspect (Poehner 2008), Spanish grammatical concept of aspect (Prospero 2012) and English listening comprehension (Hidri 2014). However, only a few studies (Panahi et al. 2013; Shrestha and Coffin 2012) have utilized DA to assess writing performance. Moreover, little research has applied DA in the context of learning Eastern languages, such as Chinese. To address these issues, the present study examined the impact of the interactionist DA approach on helping three intermediate L2 Chinese learners to develop their conceptual understandings of Chinese paragraph organizations. The study also incorporated discussions on DA's potential for promoting development within learners' ZPD and their future agency. Furthermore, an example of the teacher's misdiagnosis was provided for further discussion.

### **Research questions**

The present study seeks to answer the following research questions:

1. How effectively can an interactionist DA procedure diagnose the source of L2 learners' problematic areas related to conceptual writing styles?
2. How effectively can an interactionist DA procedure promote L2 learners' conceptual understandings of writing styles?

### **Methods**

#### **Participants**

Participants were recruited from one Mandarin Training Center (MTC) at a northern university in Taiwan. As this study measures Chinese learners' writing performance and

their understandings of rhetorical styles, only students who had finished the intermediate-low or higher classes at the center were eligible to participate. During recruitment, students were told that their participation in the tutoring session was voluntary. They could abandon the tutoring session whenever they wanted without affecting their course grade. 7 out of 21 participants were qualified to join the study. Among these seven, only three learners had finished the entire tutoring program, which included an 8-week DA session and pre- and post-interviews. Therefore, data of these three participants (Kai, Ryan and Evan, pseudonym) was selected to exemplify the methods of applying the interactionist approach of DA to support and promote language development. Details about participants' biographical information and language background are presented in Table 1.

### Data collection

This 8-week tutoring program on Chinese rhetoric was implemented within a small group setting. The main content of the tutoring program were two Chinese rhetorical writing patterns, the *Qi-cheng-zhuan-he* pattern<sup>1</sup> and the Dragon approach,<sup>2</sup> and their applications in both reading and writing texts. The assessment to this program was the principles of interactionist DA approach- allowing students to have interactive discussions with the teacher during the administration of assessment. Given the dialectical orientation to research demanded by the interpretation of Vygotskian's Sociocultural theory, the collection and analysis of data for this study was approached accordingly. The primary source of data in this study consisted of two main subsets: interactive data and learners' writings.

### Interactive data

Video recorded data from the sessions of the tutoring program served as the primary source for analyzing participants' language development over time. A total of six short dialogues between the researcher and the learner or group of learners, were selected in this study. While demonstrating ways of assessing learners' development qualitatively within their ZPD, these excerpts were also representative as 1) Kai's excerpts signified the teacher's effort in supporting development within learner's ZPD; 2) Ryan's excerpts and self-created picture demonstrated the effectiveness of DA in promoting learner's agency; and 3) Evan's case displayed a misdiagnosis example to prevent teachers from giving inappropriate mediations.

### Learners' writings

In addition to examining interactive discussions, learners' written products were also considered to validate the effectiveness of interactionist DA approach. Three writing

**Table 1** Participants' language background

Participant	Age	Nationality	First Language	Lengths of time in learning Chinese	Language ability <sup>a</sup>
Kai	23	American	English	3 years	intermediate-middle (Level 5)
Ryan	40	Dane	Danish	11 years	intermediate-high (Level 6)
Evan	24	American	English	2 years	intermediate-middle (Level 5)

<sup>a</sup>Participants' Chinese performance was assessed based on the standards established by American Council on the Teaching of Foreign Languages (ACTFL) and Common European Framework of References for Languages (CEFR). A total of nine levels which include novice, medium, superior and three subdivisions of each category (low, middle, and high) was utilized to determine classes and to design general activities

tasks were used to assess learners' independent performance before and after receiving the teacher's mediative supports through DA. The tasks were given as pretest, posttest and transferring test.

The pre-test required participants to write an expository text on the topic of *My Personal Mottos* before the tutoring program. This topic was selected because it related to the learner's personal experiences, and it was also easier to support one's arguments with stories or examples. Participants were also asked to revise on their own text based on the mediations they received. The post-test was administered at the end of the program. Participants were asked to compose an argumentative text which described their preferences of whether they would like to live in a city or rural area in the future. Based on the principles of DA procedures, participants discussed related resources such as vocabularies, idioms, four-character phrases, and brainstormed possible Chinese paragraph organizations under the teacher's assistance. Two weeks after the tutoring program, participants were asked to write a response article about a short clip<sup>3</sup> on Youtube. The transferring test aimed to assess learners' ability to apply the learned concept of rhetorical structures to different genres. Participants completed these written tasks during tutoring sessions and were given 2 h for each task. The length requirement for each task was around 400–600 words so that the paragraph organization could be easily spotted.

To ensure the reliability of the grading that participants received, two raters evaluated participants' writing on pre-test, post-test and transferring test. One of the raters was the researcher and the other a native Chinese who has 8 years of Chinese teaching experiences in a U.S. University. A Pearson product–moment correlation coefficient was computed to assess the evaluation scale of two raters. There was a positive correlation: 0.84 for the pre-test, 0.89 for the post-test, and 0.92 for the transferring test.

### **Analytic procedures**

The interactive data was analyzed based on its integrality to capture the signs of participants' development. The target language used in the transcription was English. The transcription conventions were based on the phonetic transcription presented in Cucchiari (1993). Only the coding conventions that were directly related to the research goal were employed. A list of transcription conventions were provided in Appendix 1. For the written production data, participants' writing tasks were analyzed based on their writing conventions and paragraph organizations.

## **Results and discussion**

### **Understand L2 development through DA**

#### *Different levels of support*

The interactive discussions between Kai and the teacher were selected to demonstrate how DA assisted the teacher to assess Kai's development within his ZPD. In this section, I specifically addressed Kai's understanding of the *zhuan* feature in the *Qi-cheng-zhuan-he* pattern and his responses to the teacher's mediations. Three excerpts (Tables 2, 3 and 4) were selected from the beginning, middle, and end of the tutoring program, as these exchanges demonstrated Kai's understanding of the *zhuan* feature through various reading and writing tasks.

Table 2 shows the teacher's gradual prompts to lead Kai to reconsider the *zhuan* feature. The teacher aimed first to examine Kai's developmental progress and then to

**Table 2** Teacher supports Kai's development in ZPD

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7	T why do you think it is a open the door method?
8	K because I don't think there are any changes it is an explanation just like the expository text there is one main topic and the author explains the topic. there is no changes in here ((point to the third paragraph section)) and there is no special meaning in here ((point to the fourth paragraph section))
9	T okay. pay attention to these two paragraphs ((point to the third and fourth paragraph sections)) look at the words here(.) it explains that people in the past emphasize men over women
10	T do you know what it means, People prefer men more. they don't like women
11	K I understand
12	T well, read this paragraph ((point to the third paragraph section)) again and try to understand what it means
13	K (24.0) although the culture used to prefer men than women there is a female who became emperor which means they change their mind to prefer women than men. but this section said that the culture has long history, it is hard to make changes
14	T so it used to emphasize men like Zhu Yingtai ((the woman character)) in the story of Butterfly Lovers but in Tang and Qing Dynasty people prefer women instead(.) like the story of Mulan and the Empress Dowager Cixi
15	K um
16	T Well (.) you can read it again

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Kai was identified as "K" and the teacher as "T"

assist learning by offering support that was slightly challenging for his current ability. Before the DA session, Kai read an expository text, "Women Can Hold up Half the Sky",<sup>4</sup> which was written in the *Qi-cheng-zhuan-he* method. Kai originally thought that the article was constructed in another writing style.

In line 7, the teacher first asked Kai to explain his understanding of the article and its rhetorical style. This request was important because it outlined Kai's initial performance in his ZPD. He stated that the author plainly explained the topic and maintained the same argument throughout the article. Kai's responses indicated that he either did not understand the meaning of each paragraph in the article, or he had some rule-based understanding of the *zhuan* feature that the main argument topic would change suddenly in the third paragraph (i.e., line 8). To provide fine-tuned assistance, the teacher first needed to clearly identify Kai's misconception. The teacher gave an implicit prompt to ask Kai to focus on the third and fourth paragraphs (line 9); in particular, the teacher directed Kai to pay specific attention to the words and how the words built different meanings from the author's argument. In this case, for example, the four-

**Table 3** Kai's response to teacher's mediation

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1	T where do you think <i>zhuan</i> is?
2	K I think (.) the first paragraph explains the culture that manipulates beautiful woman for advertisement and the second paragraph explains that it has some advantages like the example of Miss World can help promote the company. And then the third paragraph is the main topic (.) it says that it may have some advantages. but there must be with some problems it causes the undesirable culture (.) and the fourth paragraph the fourth section. People worry about the craziness for beauty contest like I said earlier it results in the undesirable culture which causes problem to female's social status and impedes the society progress
3	T Right. but they ((other students who also joined the discussion)) think that the last sentence is the main topic. how to promote and utilize Beauty Economy is the problem we have to face now (.) how do you think?
4	K I think the main topic is from here to (inaudible voice) ((point from the article))
5	K It is similar to what you explain about the open the door approach that it has some possible solution by the last section (.) I don't know if the <i>Qi-cheng-zhuan-he</i> method has it (.) i think this is a possible solution it gives a reader the idea of you have to do this.

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**Table 4** Kai's independent performance

1	E	I have issues to write the <i>Qi-chen-zhuan-he</i> method
2	T	okay, so we focus on the third paragraph this time (.) if he wants to write in the <i>qi-chen-zhuan-he</i> method (.) can we make suggestions on his turning point?
3	K	use one phrase that we learned before like however or otherwise

Evan was identified as "E" and the teacher as "T"

character idiom that appeared at the beginning of the third paragraph initiated the opening of the author's main argument. The teacher examined Kai's understanding of this idiom in line 10. However, Kai's responses in line 11 explained that his misconception was not a result of difficulties with phrases, but a misunderstanding of the rhetorical structure of the *zhuan* feature. Therefore, the teacher gave a second prompt, more explicit assistance, to indicate the focus reading area for Kai to re-examine the *zhuan* feature (line 12).

After a relatively long pause (24 s), Kai stated that the central theme of the third paragraph (line 13) was that women held more power than men in several dynasties. Following his correct interpretation of the paragraph, the teacher further indicated two examples explicitly in this paragraph (i.e., *Mulan and Cixi*). These two historical stories were considered important as together they represented how the counterargument was built. The pedagogical purpose of the teacher's explicit indication was to enhance the learner's awareness of the main argument. It is also an important characteristic of the interactionist DA approach that it strengthens the dialectical connection between teaching and assessing- while assessing the learner's performance within the ZPD, the teacher also supports the learner in moving beyond his current level in the ZPD.

The analysis of this student-teacher interaction demonstrated how the teacher provided assistance that was attuned to the learner's ZPD. Four tiers of support were illustrated. First, the teacher asked Kai to self-report on his understanding of the rhetorical structure. The function of this prompt was to understand the initial extent of Kai's performance in his ZPD. Second, the teacher identified Kai's real source of learning difficulty through a more direct pointing or negotiation. This prompt helped the teacher to avoid overestimation or underestimation of the learner's performance and then provided assistance that was aligned with the learner's ZPD. Third, the teacher explained important ideas directly to reinforce the learner's understanding of the *zhuan* feature. This prompt was unique, as it likely functioned as a teaching episode on the *zhuan* feature. However, it differed from the regular teaching in that the prompt the teacher offered was sensitive to Kai's ZPD. The interactionist DA approach emphasizes the dialectic integration of instruction and assessment, which means that diagnosis is only possible through instruction. The teacher's last tier of support (line 16) was to provide Kai with more thinking time to process his own learning. With this open prompt, the teacher aimed to further assess the extent to which the learner could perform independently or his future learning potential after different levels of assistance.

#### ***Kai's response to teacher's mediation***

One of the evidence that define the learner's language development in the interactionist DA approach is to analyze the quality of the learner's responses to the teacher's support. Table 3 was selected from the middle of the tutoring session when Kai was explaining his viewpoint on the writing pattern of an argumentative text, "Beauty



Economy”,<sup>5</sup> in a group setting. Kai stated that this article was constructed in the *Qi-cheng-zhuan-he* method although his idea was different from the other learners. He succeeded in defending his viewpoints through explaining the logic in each paragraph (line 2) and elucidating the central theme in the third paragraph (line 4).

Much evidence could be observed through this collaborative dialogue to indicate Kai’s improvement on Chinese rhetoric. First, Kai took the lead in explaining the *zhuan* feature. The teacher was only back-channeled through initiating the discussion (line 1) and making transitions during group discussion (line 3). The teacher’s implicit prompts explained that Kai gained more independence in regulating one’s own learning. For example, when being asked to identify the feature of *zhuan* in line 1, Kai was able to explain the main idea of each paragraph, instead of only pointing to the paragraphs like what he did in the beginning excerpt (Table 2). Without using the interactionist DA approach, Kai’s growth is almost impossible to be detected and identified if the test aims to assess the learner’s final performance.

Second, Kai responded not only to the teacher but also two other students in a group setting. While Kai correctly identified the writing pattern of this text, the other students believed this article was written in the Dragon approach so that the main topic appeared in the last sentence. The teacher thus further challenged Kai in line 3 to differentiate the *Qi-cheng-zhuan-he* method from the Dragon approach. Kai correctly pointed out the main topic from the article in line 4. He also explained that the last sentence was not the main idea of the whole article, but rather “the possible solution” (line 5) suggested by the author—a concept relates to another Chinese writing style.

Kai successfully argued against the other students through making connections with other learned rhetorical style. More importantly, he applied his internalized understanding of the *Qi-cheng-zhuan-he* method onto explaining another Chinese genre, the argumentative text. These signs showed that Kai was starting to build his own awareness of Chinese rhetorical styles. His development also demonstrated the effectiveness of the interactionist DA approach in assisting and promoting the learners’ agency and autonomy to cultivate.

#### ***Kai’s independent performance***

Table 4 demonstrates Kai’s deeper understanding of the *zhuan* feature. This excerpt was selected from the last tutoring session in that learners exchanged their written products and analyzed each other’s writing pattern. In a group setting, Kai and the teacher were providing suggestions to Evan to revise his written text based on the *Qi-cheng-zhuan-he* approach.

During group discussion, Evan directly pointed out he had problems to construct article with the *Qi-cheng-zhuan-he* method. Thus, in line 2 the teacher asked the group to focus on Evan’s *zhuan* paragraph and offer suggestions for revision. In line 3, Kai suggested Evan to use transitional words, such as however and otherwise, to form the *zhuan* feature. Using transitional words is one of the common methods to construct the *zhuan* feature and this concept had been mentioned in previous tutoring sessions.

This excerpt shows that Kai was a capable peer supporter, which is an important element of Vygotsky’s ZPD theory. He transformed from initial confusion to later configuration and then final achievement. He gained agency and independence in his own understanding of the *zhuan* feature, something that would have been missed without student-teacher interaction. Poehner (2007) notes that interactionist DA looks not only

for improvement of assessment, but also strives for development that goes beyond the assessment itself.

### Promote L2 development through DA

Promoting language development in DA means to render the language concept in a more material form, such as speech, writing, pictures or even gestures that enables learners to reflect on and manipulate specific structures. Learners' outputs also serve to highlight their source of learning difficulty so that the teacher can intervene to provide remedial programs. Table 5 represents Ryan's self-created representation of Chinese rhetorical style as an example to show how interactive discussions help promoting the learner's language understanding.

Judging from Ryan's statement in line 1, the teacher assumed that Ryan confused the *Qi-cheng-zhuan-he* approach with another writing pattern, the Dragon approach. The teacher thus explained directly in line 4 that the *zhuan* feature in the *Qi-cheng-zhuan-he* pattern did not mean an abrupt change but a gradual move to its main topic. This prompt resulted in Ryan's gesture of an inverted triangle in line 5, which could be explained that he knew the argument had been pointed out inductively at the end of the article, similar to the lower point in an inverted triangle. However, both the Dragon and the *Qi-cheng-zhuan-he* approach could be applied with this gesture. To determine the real source of Ryan's learning difficulty, the teacher provided explicit mediations through explaining the logic behind each paragraph (i.e., line 8 and 10). According to the DA principles, the underlying sources of errors have explanatory power to the learner's development (Poehner 2008). The role of interactive mediations is to diagnose

**Table 5** Ryan's self-regulated gesture and picture

1	R	but I still think that its main topic is at the last paragraph
2	T	you are partially correct.
3	T	the reason that this article is " <i>Qi-cheng-zhuan-he</i> " pattern
4	T	because right at this paragraph the author started to turn to his main topic
5	R	Ohhh ((gesture an inverted triangle))
6	T	it's turning to the main topic ((repeat the inverted triangle gesture and then add a gesture of twisted finger))
7	R	Ohhh, yes, yes ((repeat the triangle gesture))
8	T	the viewpoint of first few paragraphs was to explain the higher social status of men
9	R	Understood
10	T	But starting at the however paragraph it told you that although we used to emphasize men than women. But nowadays it is neither the higher status of men nor women. It's women who do more things
11	R	Can I say this? do you understand, ((start to draw a picture))
12	T	okay ((both T and the other two students look at the drawing))
	T	I understand. Is this your <i>Qi-cheng-zhuan-he</i> pattern?
13	R	((nod))
14	C	Oh (.) I understand
15	C	but (.) hm (.) in the middle ((repeat the double triangle gesture))
16	P	this part needs to be smaller ((point to Ryan's drawing))

Ryan was identified as "R", "C" and "P" represented two other learners in a group setting

the sources of error and to help the learner to overcome it, rather than to simply document when an error has occurred. The teacher found out Ryan could not identify the sequence of ideas clearly so that he had difficulties to associate it with rhetorical pattern.

Upon receiving the teacher's supports, Ryan benefited from the teacher's prompts as he started to draw a picture representing what he considered the *Qi-cheng-zhuan-he* approach was without the teacher's mediation (Appendix 2). His picture quickly received agreement from the teacher and two other learners. Both learners (C and P) were able to relate to Ryan's picture with their own understandings on this writing pattern (line 14 to 16). This self-initiated picture regulated not only Ryan's understanding of the *Qi-cheng-zhuan-he* approach, but also stimulated other learners' awareness to this approach.

Development in the Vygotskian sense is slow and complex. Dialogic discussions between the teacher and the learner may not always result in a sudden or dramatic shift to problem-free performance, but the interaction does nevertheless affects learner development (Poehner 2008). In Ryan' case, the teacher-learner interactions not only promoted independent performance within a single interaction, but also assisted learners to become more agentive in taking on a greater responsibility for their learning.

#### Misdiagnosis and inappropriate mediation

In what follows, an example of the teacher's inappropriate mediation that failed to promote development was presented. Two excerpts (Tables 6 and 7) were selected from the last DA session in that four learners exchanged their written products and analyzed each other's writing pattern. Participants were asked to write an argumentative text to describe their living preferences. With the intention of applying the *Qi-cheng-zhuan-he* method, Evan wrote a solid four-paragraph essay with a total of 783 words. However, his article was identified as the Dragon method by the teacher and the other two colleagues. The reason of this confusion was because that Evan had a clearly-stated sentence in the last paragraph, "No matter where you live, it has advantages and drawbacks. What suits you now may not be comfortable in the future; it depends on different periods of your life." It reflected the writing principles of the Dragon method-save the thesis statement till the end of the essay for attracting readers' attention and creating overtones. Additionally, Evan did not have a strong turning feature to demonstrate the application of the *Qi-cheng-zhuan-he* method. These two signs made the teacher suggest Evan to revise his article based on the Dragon approach as it seemed more of an appropriate structure for it. However, Evan insisted on writing with the *Qi-cheng-*

**Table 6** Teacher's first misdiagnosis on Evan's writing

26	T	Do you want to improve your third paragraph or do you want to remain the Dragon method?
27	E	Because of these situation, living in the city is the best choice ((point out his thesis statement, from the article))
28	T	Hum...so you think this is your thesis statement.
29	E	Maybe, it's possible
30	T	Okay. How do you think if this sentence is his thesis statement? ((turn to the group))

Evan was identified as "E" and the teacher as "T"

**Table 7** Teachers' second misdiagnosis on Evan's writing

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44	E	I thought I can use fan guo lai shuo ((in another words))?
45	T	Do you mean use fan guo lai shuo in your paragraph? Any reasons that you think ran er ((however)) does not fit in your article?
46	E	Does fan guo lai shuo have similar meaning as ran er?
47	T	Yes, they do. Ran er and fan guo lai shuo have similar meanings
48	T	((turn to Kai)) So you suggest he can use transitional words. Where can he put those transitional words?
49	K	Huh...if this is his thesis statement, the transitional words should put here. If he describes more sentences after transitional words, then the turn is not clear.
50	T	I found one problem. Here. fan guo lai shuo he wrote as *fan ((another Chinese character))
51	T	Here, this word, do you mean fan guo lai shuo?
52	K	((gesture to show understanding))
53	E	Huh yeah, maybe I type it wrong
54	T	If you mean fan guo lai shuo, your turning structure could be much clear.

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*zhuan-he* method and called for the teacher's help. Thus, with an aim to promote group interaction at this specific DA session, the teacher asked the group to comment on Evan's writing.

Table 6 shows the teacher's first prompt of responding to Evan's claim. In line 26, Evan pointed out his thesis statement from the article and expressed his goal of remaining on the *Qi-cheng-zhuan-he* method. This sentence was appeared at the third from the last sentence in the *zhuan* paragraph, which was an important clue for the teacher to reconsider Evan's intention of writing with the *Qi-cheng-zhuan-he* method. For instance, the teacher could consider the following questions: How did this sentence function in the third paragraph? Did it represent the *zhuan* feature for Evan's argument? If this sentence was the main argument as Evan claimed, what was the relationship between this one and the ones in the last paragraph? Thinking through these questions could help the teacher better understand Evan's purpose of writing, estimate his conceptual development, and provide appropriate mediations to promote learning. However, without reading Evan's article again to scrutinize his intention and reasons of claiming, the teacher posed the question to the group in line 30. This act not only fell short in preparing the group to work in the whole group ZPD, but also failed to identify the real source of Evan's learning difficulty. This was the first inappropriate action that resulted in the teacher's misdiagnosis.

Table 7 documents the teacher's incorrect discrimination that fails to promote Evan's development. During the discussion, Kai suggested Evan to use transitional word, such as *ran er* (however) to make his rhetorical structure clear. In line 44, Evan questioned if he could use another transitional word, *fan guo lai shuo* (in another words). The reason Evan mentioned this phrase was because he included it in his *zhuan* paragraph. Yet, the problem was that one of the Chinese characters in this phrase was miswritten in another character. It created a totally different meaning from its original meaning of transitional word. Unfortunately, the teacher did not notice this mistake and thus offered the mediation in line 45 which failed to promote development. The teacher misinterpreted that Evan's difficulty was came from his inability to differentiate the phrasal meaning between *fan guo lai shuo* and *ran er*.

Without responding and examining Evan's question again, the teacher posed a question to Kai in line 48. This resulted that the teacher lost the opportunity to correctly

interpret Evan’s ZPD. It was until line 50 that the teacher found out the miswritten character, *fan*. As soon as the teacher pointed out this typo, Kai made a gesture of understanding to represent how the typo made the meaning and writing style confusing. Lastly, the teacher indicated that the *zhuan* feature would be much clear if the typo was corrected (line 55).

The above excerpts and discussion demonstrated an example of the teacher’s inappropriate mediation. The real source of Evan’s writing difficulty was his loose paragraph organization, not his awareness of the construction of the *Qi-cheng-zhuan-he* method. During the DA session, the teacher once had chances to scrutinize Evan’s source of difficulty but the teacher was too eager to promote group interaction and thus failed to interpret the learner’s ZPD appropriately. Providing mediation is a complex task that requires effort; the mediator must pay full attention to the interaction. This example provided a counterexample for educators who may be interested in applying DA procedures in the classroom. It could also benefit DA research in reporting mediations in a systematic manner to capture the dynamics of learners’ development.

**Written production**

Table 8 presents the Chinese rhetorical structures that learners chose to construct the pretest, posttest and transferring test. Results showed that all participants applied both the *Qi-cheng-zhuan-he* and the Dragon approach to complete the writing tasks. If comparing the pretest revision and transferring test, it was worth pointing out that the writing style each participant selected was exactly the same as they produced in the transferring test. For example, both Evan and Ryan used the Dragon approach to construct the pretest revision and transferring test; Kai instead selected the *Qi-cheng-zhuan-he* approach for these tasks. As participants received more mediation from the revision process, they established better understanding of their selected writing style and thus might affect the choice they made for constructing the transferring test. This result confirmed with the findings from the interactive data that the interactionist DA approach promoted language development and extended learners’ ability beyond a given pedagogical task.

**Conclusion**

A collaborative framework between the teacher and learners is one of the characteristics that distinguishes the DA approach from other assessment tools. Derived from Vygotsky’s notion of ZPD, DA emphasizes promoting the process of development rather than focusing on the learning product. It aims to offer an interpretation of learners’ development, including their current performance level and future potential

**Table 8** Participants’ selection of rhetoric structures in writing tasks

Participant	Pretest	Pretest revision	Posttest	Transferring test
Evan	-	3	2	3
Kai	-	2	3	2
Ryan	-	3	2	3

- can’t identify  
 2 = the “*Qi-cheng-zhuan-he*” approach  
 3 = the Dragon approach

abilities. In this study, DA was used as a means to understand current performance, to support cognitive development, and to promote agency and independence. Both Kai and Ryan demonstrated self-regulated performance in assisting other learners to understand the target rhetorical concept.

DA is distinctive in its support for language teachers/researchers in examining learners' performance within their ZPD. The teacher can rely on interaction between the teacher and learners in defining an individual's performance and growth within his/her ZPD. However, ways of providing appropriate mediation that is attuned to the learner's ZPD are worth discussing. A misdiagnosis example was presented here to prevent language teachers from providing inappropriate assistance. It is the key responsibility of teachers to determine when and how to intervene with different approaches to provide increasingly more explicit assistance as the learner requires it.

This study has implications for L2 teachers by offering examples of dialogic mediation that aim to meet learners' needs in their ZPD. This study also indicates that, in teacher education, teachers' awareness of the ZPD can be practiced and enhanced through DA approaches, and this would ultimately affect how teachers make decisions in judging learners' current performance and other emerging abilities. Future DA research could consider exploring the effectiveness of applying group DA (G-DA) procedures in second-language classrooms and discussing whether G-DA and peer interaction could promote the development of whole-group ZPD. Additionally, further discussions on the dichotomy of DA and other standardized tests and the integration of DA principles in a formal testing situation are needed. This is the time to explore DA applications in the field of L2 learning to make DA a more central pedagogical approach in the future.

## Endnotes

<sup>1</sup>*Qi-cheng-zhuan-he* is one of the writing patterns indicating the indirectness in Chinese rhetoric, in which *qi* means the beginning section of an essay, *cheng* the following, *zhuan* the turning, and *he* the closing.

<sup>2</sup>"Dragon approach" is another indirect writing pattern known as "drawing the eyes of the dragon" (Gu, 1992), in which after the writer elaborates a topic in several paragraphs, the main idea is finally stated at the end of the essay. This writing style resembles with the belief of making Chinese art work that a painter would spend much time drawing a dragon, but save the most important step, adding the eyes to make it alive, for last.

<sup>3</sup>2011 commercial by Ministry of Education, Singapore <http://www.youtube.com/watch?v=UIun5xGK86g>This clip describes a teacher who provides countless help and care to a low socioeconomic status student, and finally motivates the student to continue his studies and succeed in his future career.

<sup>4</sup>The text discusses the issue of the equity of the sexes in China. It follows the *Qi-cheng-zhuan-he* pattern to organize the theme and paragraphs. In the *zhuan* section, the author directs readers' attention to the main theme about the arising status of women by eliciting stories of active women in history such as *Mulan* and the Empress Dowager *Cixi*.

<sup>5</sup>This text is constructed with the *Qi-cheng-zhuan-he* pattern. It delineates the overwhelming phenomena of using young girls for advertisements in business fields. The author makes a transition to the disadvantages of associating beauty with products in

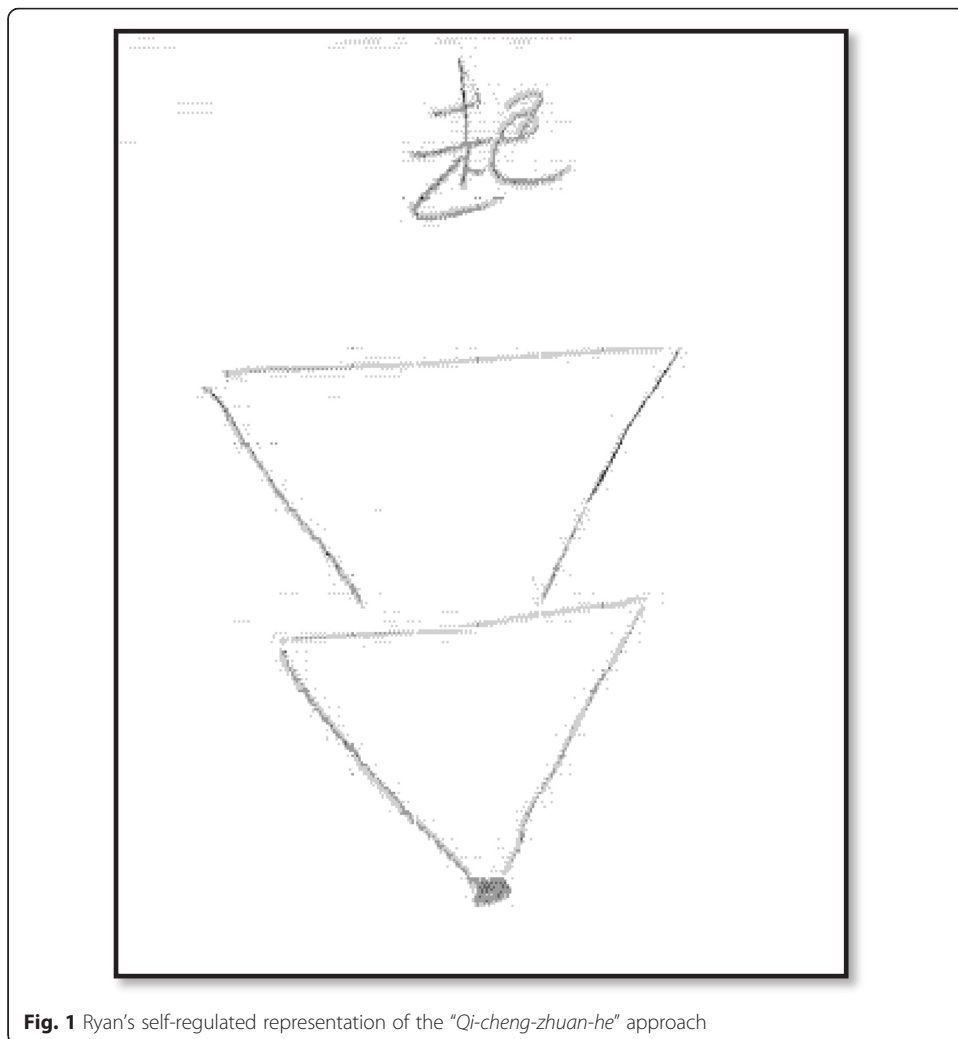
the *zhuan* section. He argues that the social values toward females has collapsed, especially how it affects young girls' conceptions who may start to believe that only youth and beauty, not education and work, will bring fortune.

### Appendix 1

**Table 9** Transcription Conventions (Paul 2007)

(.)	Micropause (less than 0.2 s)
(2.0)	Timed pause (longer than 0.2 s)
(word)	Unclear speech. The transcription is a phonetic approximation of the word or string of sounds.
(())	Transcriber's notes, comments, descriptions.

### Appendix 2



**Fig. 1** Ryan's self-regulated representation of the "Qi-cheng-zhuan-he" approach

**Competing interests**

The author declares that he/she has no competing interests.

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**References**

- Ableeva, R. (2008). The effects of dynamic assessment on L2 listening comprehension. In J. P. Lantolf & M. E. Poehner (Eds.), *Sociocultural theory and the teaching of second languages*. London; Oakville: Equinox Pub.
- Antón, M. (2009). Dynamic assessment of advanced language learners. *Foreign Language Annals*, 42, 576–598.
- Cucchiari, C. (1993). *Phonetic transcription: a methodological and empirical study*. S.l.: S.N.
- Feuerstein, R., Rand, Y., & Hoffman, M. B. (1979). *The dynamic assessment of retarded performers: the learning potential assessment device, theory, instruments and techniques*. Baltimore: University Park Press.
- Feuerstein, R., Rand, Y., & Rynders, J. E. (1988). *Don't accept me as I am. Helping retarded performers excel*. New York: Plenum.
- Gu, H. Y. (1992). Drawing the dragon: Chinese rhetoric for ESL teachers. Master's thesis. St. Cloud State University. St. Cloud, Minnesota.
- Hidri, S. (2014). Developing and evaluating a dynamic assessment of listening comprehension in an EFL context. *Language Testing in Asia*, 4(4), doi:10.1186/2229-0443-4-4
- Kozulin, A. (1998). *Psychological tools: a sociocultural approach to education*. Cambridge: Harvard University Press.
- Kozulin, A., & Grab, E. (2002). Dynamic assessment of EFL text comprehension. *School Psychology International*, 23(1), 112–127.
- Lantolf, J. P., & Poehner, M. E. (2004). Dynamic assessment of L2 development: bringing the past into the future. *Journal of Applied Linguistics*, 1(1), 49–72.
- Lantolf, J. P., & Poehner, M. E. (2010). Dynamic assessment in the classroom: Vygotskian praxis for second language development. *Language Teaching Research*, 15(1), 11–33.
- Lidz, C. S. (1987). *Dynamic assessment*. New York: Guilford Press.
- Lidz, C. S. (1991). *Practitioner's guide to dynamic assessment*. New York: Guilford.
- Lidz, C. S., & Elliott, J. (2000). *Dynamic assessment: prevailing models and applications*. Oxford: Elsevier.
- Minick, N., & Lidz, C. S. (1987). Implications of Vygotsky's theories for dynamic assessment. In *Dynamic assessment: an interactional approach to evaluating learning potential* (pp. 116–140). New York: The Guilford Press.
- Panahi P, Birjandi P, Azabdaftari B. (2013). Toward a sociocultural approach to feedback provision in L2 writing classrooms: the alignment of dynamic assessment and teacher error feedback. *Language Testing in Asia*, 3(13), doi:10.1186/2229-0443-3-13
- Paul, T. H. (2007). *Doing conversation analysis: a practical guide*. Thousand Oaks: Sage.
- Poehner, M. E. (2005). *Dynamic assessment of oral proficiency among advanced L2 learners of French*. (Doctor of Philosophy), The Pennsylvania State University, Stage College.
- Poehner, M. E. (2007). Beyond the test: L2 dynamic assessment and the transcendence of mediated learning. *The Modern Language Journal*, 91(3), 323–340.
- Poehner, M. E. (2008). *Dynamic assessment: a Vygotskian approach to understanding and promoting L2 development*. New York: Springer.
- Poehner, M. E. (2011). Validity and interaction in the ZPD: interpreting learner development through L2 dynamic assessment. *International Journal of Applied Linguistics*, 21(2), 244–263.
- Poehner, M. E., & Lantolf, J. P. (2013). Bringing the ZPD into the equation: capturing L2 development during computerized Dynamic Assessment (C-DA). *Language Teaching Research*, 17(3), 323–342.
- Poehner, M. E., & van Compernelle, R. A. (2011). Frames of interaction in dynamic assessment: developmental diagnoses of second language learning. *Assessment in Education Principles Policy and Practice*, 18(2), 183–198. doi:10.1080/0969594X.2011.567116.
- Prospero, N. G. (2012). *Verbalizing in the second language classroom: the development of the grammatical concept of aspect*. (Doctor of Philosophy), University of Massachusetts Amherst.
- Shrestha, P., & Coffin, C. (2012). Dynamic assessment, tutor mediation and academic writing development. *Assessing Writing*, 17(1), 55–70.
- Tzurriel, D. (2013). Dynamic assessment of learning potential: a new paradigm. *Transylvanian Journal of Psychology* (Special Issue), 1–16.
- van Compernelle, R. A., & Williams, L. (2013). Group dynamics in the language classroom: embodied participation as active reception in the collective Zone of Proximal Development. *Classroom Discourse*, 4(1), 42–62.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological process*. Cambridge, MA: Harvard University Press.