

How Teachers Adapt Nine Kinds of Literary Language for Second-Language Learners

C. DeCoursey¹

¹ Nazarbayev University, Qabanbay Batyr 53, Astana, Kazakhstan

Correspondence: Associate Professor C.A. DeCoursey, Nazarbayev University, Qabanbay Batyr 53, Astana, Kazakhstan

Received: March 15, 2022

Accepted: November 26, 2022

Online Published: March 1, 2023

doi: 10.5539/elt.v16n3p49

URL: <https://doi.org/10.5539/elt.v16n3p49>

Abstract

English literature is taught around the world. Most teachers of English in China are non-native English users. Most adapt literary texts for their second-language classrooms. Little research explores their processes of modifying texts. This study analysed data from 202 in-service and intending teachers, over four years. Teachers were asked first to adapt Jebb's translation of *Antigone*, and then to adapt a second play text, either a Shakespeare or a 20th century play. The time taken to adapt *Antigone* was assessed, yielding a time estimate for adapting a full-length play text, as well as per page of literary language. Likert-scale survey data was taken for 9 different kinds of difficult language found in literary texts. Results indicated that NNESTs require about 40 minutes per page when adapting modern literary language. The find retaining poetic qualities while reducing text length, that is, moving between lexicogrammatical and discourse levels of the text, the greatest challenge in adapting literary language. They find texts with contemporary lexis and grammar are easier, where classical and historical references, subplots and details are difficult to handle. They find the task satisfying, pleasurable and interesting.

Keywords: Appraisal analysis, English literature, English drama, NNESTs, second-language reading, Shakespeare

1. Introduction

The English language has become transnational, belonging to no single culture or people (Davies, 2002). Second-language (L2) learners of English are now the majority of English users worldwide (Graddol, 2007). They speak and write local forms of English, or World Englishes (Brutt-Griffler & Samimy, 2001). The global spread of English has made English literature widely known among L2 English users, of whom there are about 2 billion, nearly a third of the world's population (Levitt, 2001). Out of favour since the 1980s, literature has recently returned to language classrooms (Carter, 2007). English literary texts, including dramas, are read and performed worldwide, by non-native speakers who adapt them to their own contexts (Candlin & Mercer, 2001). Yet there is little research into how L2 teachers adapt English literary texts for classroom use. About 18.6% of English users at this time are native speakers of Chinese (Lewis & Gary, 2013). This study explored how much time Chinese L2 English teachers took to adapt complex literary language, what specific classes of lexical, grammatical and discourse items were found to be most difficult, and what their attitudes were towards adapting English play texts.

2. Literature Review

English teachers have specific language-learning objectives associated with the classroom use of English literature. English drama is often used for pronunciation practice and naturalisation of idiomatic speech (Isaac 2002). Literature represents the registers of a language authentically (Paran, 2008). It is used to teach critical thinking, civics, ethics and cultural sensitivity (Hanauer, 2001). It offers complexities which many ELT texts do not (McKay, 2000). Intrinsically motivating, literature requires students to read beyond the sentence and paragraph in order to construct meaning (Showalter, 2003). Many literary texts taught in 2L curricula were originally written in earlier forms of the language, but are included in ELT in modernised formats (Scott & Huntington, 2007). For example, canonical works such as Shakespeare's plays are often included in advanced ELT despite being written in early modern English (Ernst-Slavit, Moore & Maloney 2002). The English language has embraced outside cultures over nearly two millennia, meaning that its literary texts reflect a

complex mix of influences (Haynes, 2003). Among these, classical Greek and Latin have shaped English literary genres, tropes and content (Barber, Beal & Shaw, 2009). Plays by Greek dramatists, translated into English, are routinely included in collections of English literature (Alexander, 2000). In L2 contexts worldwide, Greek drama is often included as part of the “traditional canon of Western culture starting from the Greeks and Romans” (Vaish, 2008, 23).

China participates in these trends, educating about 350 million English users, of whom 143 million are tertiary students (Mair, 2003). At secondary and tertiary levels, canonical English literature and English translations of classical dramas are usually included in 2L curricula (Wang, 2006; Qu, 2007). The Chinese educational system tends to value traditional over popular literature, and teaches canonical and classical rather than contemporary or generic English literature (Cai, 2004). Many Chinese educational institutions have now adopted Language Arts at the secondary, and General Education at the tertiary levels, using English literature as a vehicle to deliver language and cultural proficiencies (Huang, 2006; Wang, 2006). Exploring what Chinese L2 English teachers are doing with English literature helps us see what English literature and drama means in their new global contexts (DeCoursey, 2012).

At the tertiary level in China, as in many countries worldwide, most English teachers are non-native speakers of English (NNESTs). They are themselves L2 readers of English literature. Reading a text requires the reader to construct its meaning, as an ongoing act of interpretation while moving through the text (Smagorinsky, 2001). L2 learners have a greater metacritical awareness about language-learning than do native speakers (Ruddell & Unrau, 2004). They are explicitly aware of interpreting lexis and syntax (Pulido 2003). Chinese speakers face specific challenges learning English, as their own language has no tense, voice or number (Ji, Zhang & Nisbett, 2004). Therefore, Chinese L2 readers frequently use comprehension aids such as translators, dictionaries, summaries and commentaries (Huang, Chern & Lin, 2009). They value accuracy above fluency, in constructing the meaning of English texts (Cheng, 2002). This study explored what language elements Chinese teachers, themselves L2 readers, found easy or difficult, in adapting English drama texts for L2 classroom use.

Adapting English-language texts for L2 teachers and readers is a global business (Cowie, 2002). Among the printed materials produced by publishers and used in schools and universities are simplified texts, intended to be relevant to language learners’ needs, and convenient for teachers (Widdowson, 2003). Still, the assumption, that “teachers will slavishly follow the text” is naïve: “teachers do not necessarily teach what materials writers write” (Crawford 2002, p. 82). Most teachers engage in reducing and modifying the texts they teach (Tomlinson, 2011). Chinese L2 teachers also adapt English-language texts for classroom teaching (Hwang, 2005). Adapting texts must take into account learners’ vocabulary, ability level and interests (Manis, Lindsey & Bailey, 2004). Teachers often adapt texts to meet specific learning objectives (Liaw, 2008). Adapted literary texts allow teachers to fit reading and writing syllabi together (Belcher & Hirvela, 2000). Where simplified texts may make inappropriate cultural assumptions, adaptation by teachers can fit texts to local realities, reducing elite, decontextualised and out-of-date cultural elements (Gray, 2010). Teachers enjoy their creative intervention with texts (Harmer, 2001).

Existing pedagogic materials exist to support native-speaker teachers in adapting English literature and drama for classroom use are not research-based (Dowdy & Kaplan, 2011; Fenessy, 2008; Philips, 2008). Most research on adapting texts for L2 use focuses on expository genres (Green & Hawkey, 2012). Considerable research has explored how professionals abbreviate texts for language examinations (Irvine & Kullonen, 2002). But these clearly do not represent what most L2 English teachers are doing with English literary texts. There is very little research-based understanding of L2 teachers’ processes of adapting literary texts (Philips & Cheng, 2005). Yet highly proficient L2 English teachers are the majority of those adapting literary and drama texts for language teaching purposes worldwide. Therefore, this study explored how Chinese L2 teachers adapt drama play texts for use in language teaching. Research questions addressed in this study were: How much time do L2 teachers need to adapt a dramatic play text? What elements of literary language do L2 teachers find easy, and what difficult to handle, when adapting dramatic play texts? How do they respond, subjectively, to doing this task?

3. Method

This study collected both quantitative and qualitative data. Quantitative data was collected via a survey using a 4-point Likert scale to rate the difficulty of 9 kinds of literary language. This survey was taken twice, first after groups adapted a classical play text, and again some weeks later after individuals adapted a canonical English play text. Quantitative data was also taken for the time taken to adapt play texts. Qualitative data was taken from written responses, as well as from brief written feedback on the survey.

3.1 Survey

A pilot survey was developed and tested. The pilot survey elicited feedback from L2 teachers on the perceived difficulty of adapting fifteen language items, at or below the level of the sentence, using a 4-point Likert scale where 1="very easy", 2="easy", 3="difficult", and 4="very difficult". Items included five lexical classes deemed difficult as they require text-external measures to interpret (Alexiou 2002, Daller, van Hout & Treffers-Daller 2003), and ten grammatical items commonly found in play texts and deemed important in ELT (McGrath, 2002). Pilot data was taken from 49 Chinese teachers. It confirmed three lexical classes as difficult ($m=3.0+$); cultural and historical references, poetic vocabulary, and other difficult vocabulary. Means for six grammar items fell below 2="easy"; articles, verb tenses, singular/plural agreement, countable/noncountable nouns, pronouns, and roots and affixes, probably reflecting participants' familiarity with teaching them. These were removed from the final survey, which retained three grammar items; sentences coordinating multiple clauses, outdated grammar forms, and outdated politeness formulae. Qualitative feedback on the pilot survey indicated that some discourse elements were felt to be more difficult than grammar. Thus, three kinds of discourse commonly found in play texts were added; moralising passages, minor story-telling subordinate to the main plot, and supplementary details, all of which present the English teacher with intra-diegetic material to interpret (Kucer, 2001; Onega & Landa, 1996). The final survey was composed of these three lexical, three grammar and three discourse items. The classroom process was also adjusted. Pilot participants indicated that they had sectioned the text of *Antigone* among group members for ease of processing. They affirmed the value of working as a group on a lengthy text, but noted that sectioning undermined their sense of the play overall, and their confidence in some of their decisions. Further, they experienced reading the adapted play texts quite differently. This led to the inclusion of a live, virtual performance, permitting participants to test their adaptation decisions experientially. A second iteration of text adaptation was also added, where participants individually adapted a play text, to ensure they attained a sense of the play overall, and made adaptation decisions for an entire script.

3.2 Participants

Participants in this study included 202 Chinese graduate students. All were highly proficient in-service or intending NNEST English teachers from Hong Kong and mainland China, enrolled in a graduate course on drama in L2 teaching. Data from 16 international students was excluded. Data was collected over a period of four years, from four consecutive class groups. For the first play text, participants read an English translation of *Antigone* (Sophocles, 422CE) translated into English in 1893 by British classicist R.C. Jebb. The text is available as a free download from classics.mit.edu/Sophocles/antigone.html. *Antigone* was pedagogically viable, as themes in this play include social order and chaos, personal freedom and social constraints, political and personal commitments, youth and love, intergenerational conflict, choices and consequences. These remain relevant to secondary education, and can be used to scaffold various L2 activities, tasks and assessments. Unlike works such as *The Bacchae* or *Hippolytus*, *Antigone* contains no contested sexualities or violent content.

3.3 Instrument

Data collection was staged across the semester. In weeks 1-2, the nine difficult lexis, grammar and discourse items were discussed in class. The first area of difficult lexis, classical and historical references, referred to specific nominal categories including (a) the names and epithets of gods and goddesses (for example "Hermes Mekhaniotis", "Hermes the Trickster"), (b) historical place-names ("Colonus of the Horses", Mount Kithaeron), (c) names of historical social groups (Hellenotamai", treasurers), (d) historical tribal names ("Ionians," "Spartans"), (e) honorific epithets ("Aphrodite Urania", "heavenly Aphrodite"), (f) patronymics ("Creon, son of Menoeceos") and (g) combinations of these ("Nysa's hills"). The second lexical item, "poetic vocabulary", included metaphor, simile, simple metonymy and synecdoche, as well as extended passages of imagery or description extraneous to the action. For example, Tiresias' description of hearing birds "screaming with dire, feverish rage, that drowned their language in jargon; and I knew that they were rending each other with their talons, murderously; the whirr of wings told no doubtful tale" contains poetic language which might be abbreviated for L2 learners as: "I heard birds fighting, and I knew he was dead". For the third lexical item, "other difficult vocabulary", it was not possible to distinguish classicising ("esoteric", "archaic"), arcane ("slay", "carrion") and other kinds of words. Many L2 speakers are not aware of English words' etymologies, but may be familiar with specialist registers such as those found in fairy tales or religious texts. Therefore, this was left to individual participants to define. Difficult grammar items included outdated grammar forms (est/eth as in "Zeus who watchest over", "haply", "thou/thee"), outdated politeness formulae ("I prithee", "if it please the gods"), and sentences coordinating multiple clauses. The three discourse elements included moralising passages, or passages

asserting the meanings of events and drawing lessons from them. For example, commenting on Creon's decision to bury Antigone alive for disobeying him, the Chorus notes, "Victorious is the love-kindling light from the eyes of the fair bride; it is a power enthroned in sway beside eternal laws, for there the goddess Aphrodite is working her unconquerable will." This passage questions the morality of Creon's decision. Antigone is engaged to Haemon, and the Chorus suggests love is a power equal to justice. The second discourse item, "minor storytelling", referred to the tendency of characters to recount extraneous events and past episodes., as when the Chorus reviews the biography of Antigone's father Oedipus, as a means of reflecting on Antigone's interactions with Creon. The third discourse item, "minor details", referred to details which support but are not crucial for understanding the main story. For example, Creon's ban on burying Antigone's brothers is essential to understanding she has committed a crime, but the specific legal elements of his proclamation are supporting detail.

In weeks 3-5, participants formed small groups to work on an adaptation which was meant to suit a L2 upper secondary (15-17 years) class group at an intermediate ability level (IELTS 5). In week 6, groups tried out their adapted scripts in a virtual environment, Second Life, where they took on roles and delivered characters' lines in order to review decisions made in adapting the playtexts. In week 7, after adaptations were handed in, participants completed the first survey, which asked them to rate the difficulty they experienced in adapting *Antigone*, for each of the nine kinds of difficult language. The survey used the same 4-point Likert scale as the pilot. A second form of quantitative data was collected. Groups were asked to carefully estimate the amount of time taken to adapt the script. Estimates included the hours each member had individually spent adapting portions of the play text, but excluded time spent communicating with each other, and time used for the virtual performance. Estimates were rounded to the quarter-hour.

In weeks 8-13, participants worked individually to adapt the script of a second play. This was a canonical English play text, adapted as part of a production plan. Playtexts options included Shakespeare's *Romeo and Juliet*, Shakespeare's *Midsummer Night's Dream*, Jean Anouilh's *Antigone*, and Bernard Shaw's *Major Barbara*. In week 14, the same survey was given again, after participants had handed in their individual play adaptation.

3.4 Qualitative Data

Qualitative data was elicited about participants' experience of adapting English playtexts, from two sources. First, the survey included one written question, "Is there anything you would like to add?" Second, as part of their production plan, participants were asked to write a brief personal reflection of about 200 words, about the experience of individually adapting their chosen play text. Subjective responses contained in the qualitative data was expected to illuminate the quantitative data.

3.5 Appraisal Analysis

Subjective personal comments may be analysed using Appraisal analysis, an offshoot of systemic functional linguistics which taxonomises English language lexicogrammar that realises affect, judgment or appreciation (Scherer, Schor & Johnstone, 2001). When realising a personal opinion, people select specific words and phrases from the many they know in English (Halliday, 1994). Realisations are positive or negative (Read & Carroll, 2010). For example, "It's too time-consuming to read all those strange names for the people in myths" is negative, where "My script is much better when I remove the names of the fathers, and really focus on the characters" is positive. Attitude may be directly inscribed, for example "It is a good idea to let some shy students speak together as the Chorus". Alternately, attitude may be indirectly invoked, as in, "If I just leave those names of old Greek places in, it does not properly help the students learn the English phonology", which disperses negative attitude among the lexicogrammatical elements of the sentence (Taboada, Brooke, Tofiloski, Voll, & Stede, 2011)). Appraisal analysis sorts attitudinal choices according to the Attitude system networks (Martin & White, 2005). The Appraisal systems are articulated into sets and subcategories of increasing delicacy, as in Figure 1.

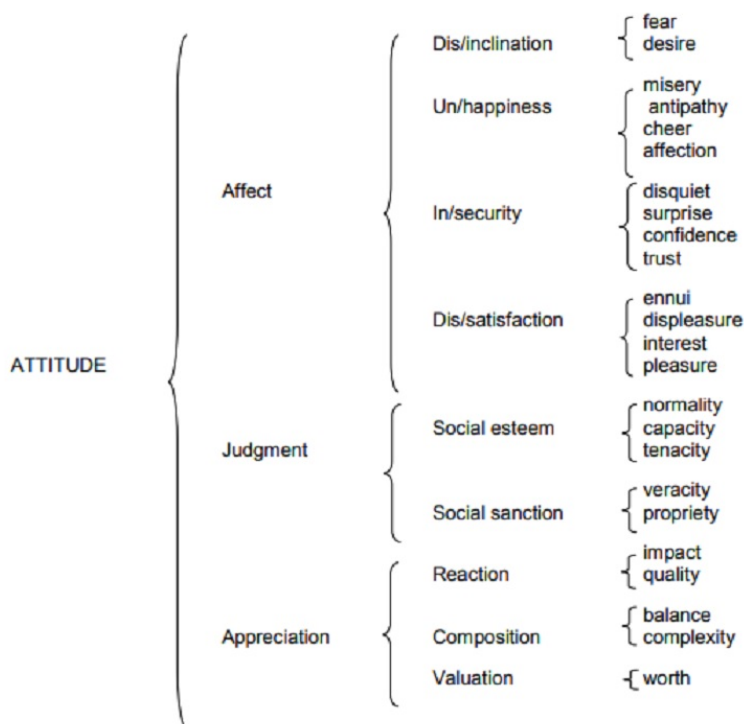


Figure 1. The Attitude System

Appraisal analysis is a widely-used research tool within computational linguistics (Wiebe, Wilson & Cardie, 2005). The attitudinal lexicogrammar contained within text corpora may be automatically concordanced (Bednarek, 2006). Machine-based analysis of text corpora makes regularities visible (Bednarek, 2009). Automatic text-tagging is reliable (Polanyi & Zaenen, 2006). Machine tagging of corpora for sentiment analysis has “gained widespread acceptance in the field of emotion research” (Kuppens, Van Mechelen, Smits, De Boeck, & Ceulemans, 2007, p. 690). Machine attributions must be checked by trained human taggers as software does not always identify idiomatic usages. For example, “like” may be a positive affective attitude, or it may be uptalk or filler (“Before we performed our script in Second Life, I was like, how can I be so strong against Creon?”). Equally, “like” as an affective attitude may be tagged as desire, for example in ‘I’d like to see a real performance of the play’, or as affection, as in “I like Ismene because she is a normal sister”. The validity of Appraisal analysis sets and categories is enhanced by the recent convergence of models of attitude coming from the fields of linguistics and psychology (Oatley, Keltner & Jenkins, 2006). For this study, the software CorpusTool (CT) was used, as it incorporates Appraisal system networks within its analytic layers (O’Donnell, 2008). Personal reflections about the experience of individually adapting the second play text, along with the qualitative data collected from the survey, were aggregated into a corpus totalling 59,371 words. These were uploaded to CT, and attributions checked by the researcher, who has training in using CT for Appraisal analysis, and by a research assistant with 100+ hours’ experience tagging attitude. Results for taggers were compared, and the inter-rater reliability calculated using Cohen’s κ (Lombard, Snyder-Duchy, & Bracken, 2004). The resulting values were 0.926 (*p-o*) and 0.909 (*f-m*). These values are robust, and not attributable to chance.

4. Results

Quantitative data was collected from the time estimates and surveys. Qualitative data was collected from written responses.

4.1 Quantitative Data: *Antigone*

Participant groups estimated the time required to adapt *Antigone*. Over four years, this included a total of 53 small groups, comprising the 202 participants, as in Table 1.

Table 1. Group estimates of time taken to adapt *Antigone* for ESL

COHORT	NO. STUDENTS	NO. GROUPS	AVERAGE ESTIMATED HOURS	Σ
1	55	13	19.5	0.265
2	51	15	16.22	0.219
3	47	13	22.46	0.203
4	49	12	20.31	0.181
	202	53	19.62	0.217

The mean for all groups was 19.62 hours (19 hours 37 minutes). Estimates varied by $m=0.217$ (4 hours 16 minutes). Time estimates were not elicited for individual adaptations of playtexts, as planning a production involved directorial and technical matters impacting textual adaptation but going well beyond issues of language. Likert-scale means for the nine kinds of difficult language were obtained from the survey data. These are ranked for difficulty, in Table 2.

Table 2. Difficulty of 9 language items in adapting Sophocles' *Antigone* (Jebb tr.)

RANK	LANGUAGE ELEMENT	ITEM	LIKERT MEAN	Σ
1	lexis	classical references	3.69	0.13
2	grammar	outdated grammar forms	3.57	0.11
3	grammar	multiple clauses	3.53	0.20
4	discourse	minor details	3.33	0.21
5	grammar	outdated politeness formulae	3.09	0.18
6	lexis	other difficult vocabulary	2.88	0.19
7	lexis	poetic vocabulary	2.71	0.22
8	discourse	minor story-telling	2.49	0.12
9	discourse	moralising passages	2.15	0.09
			3.05	0.16

The mean of means, 3.05, shows that participants found adapting this play text difficult. Participants rated four language items between “difficult” and “very difficult”; classical references, outdated grammar forms, sentences coordinating multiple clauses, and minor details. Adapting outdated politeness formulae rated close to “difficult”. They rated four items as moderately difficult; other difficult vocabulary, poetic vocabulary, minor storytelling and moralising passages. No language item rated between “easy” and “very easy”.

4.2 Quantitative Data: Other Plays

Survey data was collected for the second adaptation of a different play text. As none of the four second-iteration playtexts were classical, the word “classical” was replaced with “outdated”. Playtexts selected included Shakespeare's *Romeo and Juliet* (“R-J” in Table 3 below), Shakespeare's *Merchant of Venice* (“M-V”), French playwright Jean Anouilh's 1944 version of *Antigone* (translated by Barbara Bray, “A-A”), and Bernard Shaw's *Major Barbara* (“M-B”), as in Table 3.

Table 3. Difficulty of nine language items in adapting four playtexts

LANGUAGE ELEMENT	ITEM	R-J (no=71)		M-V (no=33)		A-A (no=62)		M-B (no=36)		M, LANGUAGE ELEMENT		
		m	σ	m	σ	m	σ	m	σ	M	m-Shx	m-20 th
grammar	outdated grammar forms	3.62	0.17	3.69	0.15	2.31	0.16	2.25	0.11	2.97	3.66	2.28
grammar	outdated politeness	3.42	0.14	3.56	0.17	2.03	0.12	2.18	0.12	2.80	3.49	2.11
grammar	multiple clauses	3.87	0.15	3.76	0.13	2.63	0.18	2.79	0.17	3.26	3.82	2.71
lexis	outdated references	3.40	0.18	3.68	0.14	1.77	0.14	2.83	0.15	2.92	3.54	2.30
lexis	poetic vocabulary	3.51	0.16	3.32	0.14	2.26	0.18	2.14	0.14	2.81	3.42	2.20
lexis	difficult vocabulary	3.38	0.14	3.74	0.15	2.13	0.15	2.45	0.16	2.93	3.56	2.29
discourse	moralising passages	3.29	0.15	3.53	0.17	2.56	0.17	2.26	0.16	2.91	3.41	2.41
discourse	minor story-telling	3.41	0.17	3.76	0.16	2.74	0.16	2.43	0.15	3.09	3.59	2.59
discourse	minor details	3.49	0.16	3.82	0.17	2.82	0.15	2.35	0.17	3.12	3.66	2.59
		3.49	0.16	3.76	0.15	2.36	0.16	2.41	0.15	2.98	3.57	2.39

The mean of means, 2.98, shows that L2 teachers found adapting these playtexts difficult. Not surprisingly, Shakespeare's plays were rated more difficult (m=3.57) than 20th century plays (m=2.39). Shakespeare plays were perceived overall as 1.18 Likert-scale degree more difficult to adapt, with means for all items falling between "difficult" and "very difficult". Three language items were found difficult for all playtexts; multiple clauses (grammar, M=3.26), minor details, (discourse, M=3.12) and minor story-telling (discourse, M=3.09). The language items found least difficult to adapt, in Shakespeare or 20th century playtexts, were outdated politeness formulae (M=2.80) and poetic vocabulary (M=2.81), both somewhat less than "difficult". The lowest means for Shakespeare plays (m-Shx), moralising passages (m=3.41), poetic language (m=3.42), and outdated politeness formulae (m=3.49), were also among the lowest for 20th century plays (m-20th), with outdated politeness formulae (m=2.11), poetic language (m=2.20), outdated word forms (m=2.28), difficult vocabulary (m=2.29), outdated references (m=2.30) and moralising passages (m=2.41) falling closer to "easy" than "difficult".

4.3 Qualitative Data

Qualitative data illuminates these findings. In all, 72 (35.64%) of participants commented on the survey on multiple clauses as difficult, which rose to 89 (44.01%) of participants for the final project. For example, one wrote about Anouilh's *Antigone*, "The sentences are often quite long, and you have to carefully follow which noun and verb are relevant. Sometimes I cannot even get there." Another wrote about *Merchant of Venice*, "In terms of the difficulties, the most formidable one is the problems of the long sentences which can go on for ten lines. Some of them arguing many different ideas, that the reader loses their way and cannot tell." In all, 55 (27.23%) participants commented on outdated references. For example, one teacher noted their lack of relevance to language-learning: "The most efficient way to memorize a new vocabulary is to come across it in a real situation. But many of them in this play are not found any more in our society." Outdated word forms were commented on negatively by 29 (14.35%) participants regarding Jebb's *Antigone*, and 41 (20.29%) for the four final plays. For example, one participant wrote, "The speech of Shakespeare's language demands a suitable voice. But some of expressions maybe different from the modern English, like thee." Shakespeare's poetic language was found difficult. Despite the difficulty, this language item received only positive comments, for both Jebb's *Antigone* (22=10.89%) and the final project playtexts (35=17.33%). One participant wrote, "The beauty of the poetry is important. It conveys the sophisticated emotions. I try to recover Shakespeare's thinking. With this, we will learn new words." Only 16=7.92% of participants commented on minor story-telling for Jebb's *Antigone*, and 19=9.41% for the other plays. Politeness formulae, difficult vocabulary, and moralising passages received fewer than 10 (4.95%) comments each. Thus, the qualitative data suggests L2 teachers find multiple clauses, outdated cultural and historical references, and outdated word forms difficult, but respond positively to poetic language despite its difficulties, and feel able to handle minor story-telling, politeness formulae, other difficult vocabulary, and moralising passages.

Qualitative data from reflections and survey comments, analysed using the Appraisal layers in CorpusTool, produced a detailed picture of L2 teachers' attitudes towards adapting playtexts. Of 1,542 attitudes realised in the

59,371-word corpus, 873=56.61% were positive, and 669=43.39% negative. Attitudinal density was 40.13 per 1000 words. The overall polarity of the corpus does not represent participant attitudes toward the playtexts or towards the task of adapting them overall, as participants were invited to comment on difficult language. Of 24 subcategories, five accounted for about half of all attitudes realised, as in Table 4.

Table 4. Frequently-realised negative and positive attitudes towards adapting English playtexts

NEGATIVE				POSITIVE				
system	set	subcategory	%	system	set	subcategory	%	
1	affect	dis/satisfaction	displeasure	12.86	appreciation	reaction	quality	10.19
2	judgment	social esteem	normality	10.91	judgment	social esteem	capacity	8.25
3	appreciation	composition	complexity	10.62	judgment	social esteem	normality	7.90
4	judgment	social esteem	capacity	9.12	appreciation	reaction	impact	7.67
5	affect	dis/inclination	desire	8.67	affect	dis/satisfaction	interest	7.45
			52.18				41.46	

Frequently-realised negative and positive attitudes were found in dis/satisfaction –dis/interest and –dis/pleasure (“un/happy about”, “interesting”), judgments of social esteem–normality (“strange”, “special”) and –capacity (“cannot”, “able to”), and appreciations of reaction-impact and composition-complexity (“fabulous”, “too complicated”). Comments focused on the qualities of the play text, and on teachers’ own successes and failures in managing these. For example, negative feelings of displeasure and desire were frequently realised in response to the loss of meaning that became apparent when reducing text. One teacher wrote: “At the first effort, I was upset at what happened to the roles. I didn’t want to completely ignore the proper articulation and understanding of the whole story.” Negative appreciations of composition-complexity were also frequently realised with regard to the challenge of simplifying language but retaining complex meaning, for example: “It is quite complicated to keep the theme with the original one and cut the lines for the actors, when we put it into the context of today”. Negative judgments of social esteem-normality also often focused on the time required, for example “When I am trying to learn the court room scene I have to read the entire mercy speech. It takes hours before I know what I can cut out and what I must leave in.” Negative realisations of capacity often characterised teachers’ views of their successes and failures, for example, “I need more experience to be able to adapt the script” and “When I change the language, it seems too ordinary, not well enough to be the aristocrat”. These comments focused on the task and on the teacher’s own expertise. Positive judgments of social esteem, in both areas of normality and capacity were frequently realised by teachers assessing their achievements, for example, “I am only one teacher and one director, but I have made a unique script”, and “I am quite pleased once I completed the script, especially with how I can give each character a precise and vivid way of speaking”. Appreciations of reaction-impact and -quality were similar, for example: “The final version was a real surprise, because after all my efforts and confusion, it worked. It was fabulous” and “When it was finished, I felt the actors would find the words beautiful, and I would like to try it actually.” Frequent realisations of affect in the area of satisfaction-interest were similar.

Most comments mixed negative with positive attitudes, realised towards a combination of lexis, grammar and discourse elements. For example:

- A Antigone talks so much. But it boils down to just hello, or, I buried my brother. I don’t know how to cut the words because some is poetic, which I want to keep some in the play. But most is just blah blah. I don’t like this kind of girl.
- B At first, I delete Balthasar. He has few words, with many old vocabulary and expressions. It will make the script easier. But then I realise there is nobody to take Romeo the letter, so I have to put him back in. It takes my time to learn the story, before I can really decide to cut.
- C The problem with this script is that there is no lesson. Although the Chorus talks about what the events mean for different characters, he keeps it unclear, to make you think. This is for advanced students. If I cut, I will change this, so cutting is very difficult. I read that the first audience was also confused about whether Creon or Antigone was right.

In A, the L2 adapter perceives a syndrome of lexis, grammar and discourse as typifying the speech of one character. He comments on his own process of understanding, implying that the effort to understand lexis and grammar is onerous, and the effort is undermined at the level of discourse as once meaning is constructed, lexis and grammar may be greatly simplified and reduced. He offers a negative summative evaluation of this kind of speech. In B, the L2 adapter indicates that, while she began with lexis and grammar, she found it necessary to move back and forth between these and discourse. Her reversals of decisions made highlights the reasons why adapting playtexts takes so long, and why L2 adapters found minor details and plot events difficult. She needed to grasp the details in order to grasp the overall story, and had to complete this in order to effectively adapt the script. In C, the L2 adapter perceives the balance between the main characters, as opposing voices for freedom and order, and the potential to disrupt this when adapting the text. To handle this problem, this L2 adapter read critical commentary. His comments indicate his need to understand the meaning of the play before he can decide what to cut or change. Overall, these examples indicate that, when adapting playtexts, L2 teachers experience difficult lexis, grammar and discourse as highly interconnected. They must parse lexical and grammatical items in order to grasp the characters and events. They must integrate this information, to construct the meaning of the play. As meanings are sophisticated, they must consult critical sources. This goes some way to explaining the substantial time taken to adapt playtexts. The difficulties of reading literary language are felt to be lexis and grammar (Savvidou 2004). Many studies of literature in L2 classrooms treat its content as definable, able to be handled discretely from lexis and grammar (McKay 2001). This data suggests that highly-proficient L2 teachers find them enmeshed.

5. Discussion

This study has produced four main results, two from the quantitative and two from the qualitative data.

5.1 NNESTs Require about 40 Minutes Per Page When Adapting Modern Literary Language

The quantitative data shows, first, that highly proficient L2 English teachers require substantial amounts of time to reduce and modify dramatic texts, and second, that they find some lexical, grammatical and discourse items more difficult to manage than others. The time taken to adapt the Jebb translation of *Antigone*, 19 hours 37 minutes, is substantial. The Jebb translation is 11,958 words (29.9 pages, at ~400 words/page) long. This yields a measure for the time taken by a proficient L2 teacher to adapt dramatic playtexts of about 40 minutes per page. The variation suggests this could vary by about 9 minutes more or less, per page. English teachers and graduate students are successful L2 learners, with excellent metacognitive skills and proficient reading speeds approaching a page per minute (Bell 2001). Thus, we may assume that a minimal proportion of this time was spent understanding the language at the sentence level, even given the presence of outdated lexis and grammar.

5.2 NNESTs find moving between lexicogrammatical and discourse demands the greatest challenge with adapting literary language

While Shakespeare texts were found to be 1.18 Likert-scale degrees more difficult to adapt, Jebb's translation of *Antigone*, the text which yielded this value, is in near-contemporary English. Attitude data suggests that the time demand reflects the challenges of reducing and modifying without losing meaning and poetry, and that adapting required moving back and forth between lexicogrammatical and discourse levels. Teachers of L2 learners able to read literary or dramatic works are unlikely to choose simple literary texts, and Chinese L2 learners are routinely asked to read short stories and novels (Wang, 2006). This suggests that adapting a 2000-word, or 5 page short story would take a teacher about 3 hours and 20 minutes, or 100 minutes per thousand words. Adapting the script for a full-length play takes up time equivalent to half a workweek, a significant addition to teacher workload. As English-language play performance is now a routine element of Language Arts curricula, this finding has implications for secondary teachers and teaching teams.

5.3 Modern Lexis and Grammar Are Easier, But All Classical References, Subplots and Details Difficult, for NNESTs to Adapt

The quantitative data from survey one, the group adaptation of *Antigone*, and survey two, the individual adaptation of a second play text, shows what we would expect, that NNEST participants found adapting playtexts difficult, though 20th century plays were easier, probably reflecting the lower incidence of outdated lexis and grammar. However, attitude data suggests that modifying word forms and sentences coordinating multiple clauses, the most difficult items to adapt in a classical or Shakespeare play. For all plays, one lexical element, classical or outdated references, and two discourse elements (minor story-telling, minor details) were also rated between "difficult" and "very difficult". This is consistent with the qualitative data, where teachers reported that when adapting literary texts, the challenge was integrating lexicogrammar with meaning.

5.4 NNESTs Find Adapting Literary Language Difficult, but also Satisfying, Pleasurable and Interesting

Appraisal analysis of the qualitative data reveals L2 teachers' investment in the task, and attitudes frequently realised towards the task. Frequent realisations, negative and positive, in dis/satisfaction, appreciations of reaction to the impact of the experience and their final product, and feelings of dis/pleasure and dis/interest show that L2 teachers are themselves intrinsically motivated by working with literary language, texts and meaning. Attitude was frequently realised in the areas of social esteem-normality and –capacity and appreciations of complexity, indicating that teachers found it difficult, and that teachers see their ability to handle literary language in terms of personal skills and accomplishments. They correctly found playtexts complex for meaning, sometimes leading them to read critical sources. Still, the difficulty of poetic language did not prevent them from finding it attractive. The complexity of playtexts requires L2 teachers to understand issues within the text, consider their own views, and evaluate how the author has handled them, before they can decide how to adapt them. They employ a naïve view of authorial intent, in doing so. L2 teachers go through a process of moving between issues at the sentence level, such as lexis and grammar, and referring back to the level of discourse, in constructing the meaning of the play. Because of this, they adjudicate their adapted script positively when they feel they achieved a successful integration, and negatively in the area of reaction-quality and social esteem-capacity when they feel they did not.

6. Conclusion

An initial study can achieve some results more effectively than others. This study aimed to estimate the time required by Chinese NNESTs to adapt playtexts, and the specific language difficulties encountered. When adapting playtexts, L2 teachers make both reductions and modifications. Reductions include cutting words, phrases, lines, speeches and characters. Modifications includes replacing difficult with easier words and phrases, deleting extraneous words, phrases, and lines, simplifying grammatical structures, and adjusting the meanings of words, phrases, lines and speeches to remove offensive or simplify complex content. This study indicates the need for further research, particularly focused on the processes of adaptation. Studies using keystroke-tracking or case studies approaches would be effective for this purpose. The genre of literature used for this study was drama play texts. While it is likely that adapting dramatic language has similarities to adapting other kinds of literature, it is also likely that some literary genres present different difficulties. For example, play texts have specific language characteristics, being composed almost entirely from dialogue. Results could differ for texts including other generic linguistic features, for example poetry or novels. Further, similar research using other play texts, studying the processes of less highly-proficient teachers, and studying non-Chinese L2 teachers might modify these results. In the global era, English literature is greatly in the hands of non-native speakers, now the great majority of readers of English literature. Decisions made when reducing and modifying are acts of meaning construction. Further research would contribute to our understanding of the transformations of what English literary works mean, in their global contexts.

References

- Alexander, M. (2000). *A history of English literature*. London, Macmillan.
- Alexiou, M. (2002). *After Antiquity: Greek language, myth, and metaphor*. Ithaca, NY, Cornell University Press.
- Barber, C., Beal, J. & Shaw, P. (2009). *The English language: A historical introduction*. Cambridge, Cambridge University Press. <https://doi.org/10.1017/CBO9780511817601>
- Bednarek, Monika. (2006). Polyphony in Appraisal: Typological and topological perspectives. *Linguistics and the Human Sciences*, 3(2), 107-136. <https://doi.org/10.1558/lhs.v3i2.107>
- Bednarek, Monika. (2009). Dimensions of evaluation: Cognitive and linguistic perspectives. *Pragmatics & Cognition*, 17(10), 146-175. <https://doi.org/10.1075/pc.17.1.05bed>
- Belcher, D. & Hirvela, A. (2000). Literature and L2 composition: Revisiting the debate. *Journal of Second Language Writing*, 9, 21-39. [https://doi.org/10.1016/S1060-3743\(99\)00021-1](https://doi.org/10.1016/S1060-3743(99)00021-1)
- Bell, T. (2001). *Extensive reading: Speed and comprehension*, 1(1), 1-13. www.readingmatrix.com/articles/bell/article.pdf (June 3, 2013).
- Brutt-Griffler, J., & Samimy, K. (2001). Transcending the nativeness paradigm. *World Englishes*, 20, 99–106. <https://doi.org/10.1111/1467-971X.00199>
- Ying-hui, C. (2004). Comments of the curriculum setting of general education in universities and its measures of reformation. *Journal of Higher Education*, 6.
- Candlin, C. & Mercer, N. (2001). *English language teaching in its social contexts: A reader*. London: Routledge.

- Carter, R. (2007). Literature and language teaching 1986-2006: A review. *International Journal of Applied Linguistics*, 17(1), 3-13. <https://doi.org/10.1111/j.1473-4192.2007.00130.x>
- Cheng, X. (2002). Chinese EFL students' cultures of learning in Lee, C. and Littlewood, W. (Eds.) *Culture, Communication and Language Pedagogy*. Hong Kong, Hong Kong Baptist University Press, 103-116.
- Cowie, A. (2002). *English dictionaries for foreign learners: A history*. Oxford, Oxford University Press.
- Crawford, J. (2002). The role of materials in the language classroom: Finding the balance in Richards, J. and Renandya, W. (Eds.) *Language Teaching: An anthology of current practice*, Cambridge, Cambridge University Press, 80-93. <https://doi.org/10.1017/CBO9780511667190.013>
- Daller, H., van Hout, R. & Treffers-Daller, J. (2003). Lexical richness in the spontaneous speech of bilinguals. *Applied Linguistics*, 24(2), 197-222. <https://doi.org/10.1093/applin/24.2.197>
- Davies, A. (2002). *The native speaker: Myth and reality*. Clevedon, England: Multilingual Matters. <https://doi.org/10.21832/9781853596247>
- DeCoursey, C. (2012). Reading literature, realising culture: Appraising intercultural attitudes in the Hong Kong classroom in DeCoursey, C. (Ed.) *Language Arts in Asia: Literature and drama in English, Putonghua and Cantonese*. Newcastle Upon Tyne, Cambridge Scholars Publishing, 50-86.
- Dowdy, J., & Kaplan, S. (Eds.). (2011). *Teaching drama in the classroom: A toolbox for teachers*. Sense, Rotterdam. <https://doi.org/10.1007/978-94-6091-537-6>
- Ernst-Slavit, G., Moore, M. & Maloney, C. (2002). Changing lives: Teaching English and literature to ESL students. *Journal of Adolescent and Adult Literacy*, 46(2), 116-128. <https://www.jstor.org/stable/40015434>
- Fennessy, S. (2008). *Language Arts Lessons for Active Learning*. Heinemann, New Hampshire.
- Graddol, David. (2007). *English Next* British Council, The English Company UK, <http://www.britishcouncil.org/learning-research-english-next.pdf> accessed September 3, 2012.
- Gray, J. (2010). *The construction of English: Culture, consumerism and promotion in the ELT global coursebook*. Basingstoke, Palgrave Macmillan.
- Green, A. & Hawkey, R. (2012). Re-fitting for a different purpose A case study of item writer practices in adapting source texts for a test of academic reading. *Language Testing*, 29(1), 109-129. <https://doi.org/10.1177/0265532211413445>
- Halliday, M.A.K. (1994). *An Introduction to Functional Grammar*. London, Edward Arnold.
- Hanauer, D. (2001). The task of poetry reading and second language learning. *Applied Linguistics*, 22(3), 295-323. <https://doi.org/10.1093/applin/22.3.295>
- Harmer, J. (2001). Coursebooks: A human, cultural and linguistic disaster? *Modern English Teacher*, 10(1), 5-10.
- Haynes, K. (2003). *English literature and ancient languages*. Oxford, Oxford University Press.
- Huang, Kunjin. (2006). The Basic Ideas and A Curricular Design on General Education in the University. *Peking University Education Review*. DOI: cnki:ISSN: 1671-9468.0.2006-03-007 accessed May 12, 2012.
- Huang, H., Chern, C. & Lin, C. (2009). EFL learners' use of online reading strategies and comprehension of texts: An exploratory study. *Computers & Education*, 52(1), 13-26. <https://doi.org/10.1016/j.compedu.2008.06.003>
- Hwang, C. (2005). Effective EFL education through popular authentic materials. *Asian EFL Journal*, 7(1), article 7.
- Irvine, S. & Kullonen, P. (2002). *Item generation for test development*. New York, Lawrence Erlbaum.
- Isaac, A. (2002). 'Opening up' literary cloze. *Language and Education*, 16(1), 18-36. <https://doi.org/10.1080/09500780208666817>
- Ji, Li-jun, Zhang, Zhiyong & Nisbett, Richard. (2004). Is it culture or is it language? Examination of language effects in cross-cultural research on categorization. *Journal of Personality and Social Psychology*, 87(1), 57-65. <https://doi.org/10.1037/0022-3514.87.1.57>
- Kucer, S. (2001). *Dimensions of literacy: A conceptual base for teaching reading and writing in school settings*. New York, Erlbaum.

- Kuppens, Peter, Van Mechelen, I., Smits, D.J.M., De Boeck, P. & Ceulemans, E. (2007). Individual differences in patterns of appraisal and anger experience. *Cognition and Emotion*, 21(4), 689-713. <https://doi.org/10.1080/02699930600859219>
- Levitt, P. (2001). *The Transnational Villagers*. Berkeley CA: University of California Press. <https://doi.org/10.1525/9780520926707>
- Lewis, M. & Gary, F.. (2013). *Ethnologue: Languages of the World*. 17th Edition. Dallas, Texas, SIL International.
- Lombard, M., Snyder-Duch, J. & Bracken C. (2004). Practical resources for assessing and reporting intercoder reliability in content analysis research projects. ils.indiana.edu/faculty/hrosenba/www/Research/methods/lombard_reliability.pdf accessed May 14, 2013
- Mair, C. (Ed.) (2003). *The politics of English as a world language: New horizons in postcolonial cultural studies*. Amsterdam: Rodopi. <https://doi.org/10.1163/9789401200929>
- Manis, F., Lindsey, K. & Bailey, C. (2004). Development of reading in grades K-2 in Spanish-speaking English language learners. *Learning Disabilities Research And Practice*, 19(4), 214-224. <https://doi.org/10.1111/j.1540-5826.2004.00107.x>
- Martin, J.R. & White, Peter. (2005). *The Language of Evaluation: Appraisal in English*. New York, Palgrave.
- McGrath, I. (2002). *Materials Evaluation and design for language teaching*. Edinburgh, Edinburgh University Press.
- McKay, S. (2000). Teaching English as an international language: Implications for cultural materials in the classroom. *TESOL Journal*, 9(4), 7-11.
- Celce-Murcia, M (Ed.). (2001). *Teaching English as a Second or Foreign language*. Heinle & Heinle.
- Oatley, K., Keltner, D. & Jenkins, J.M. (2006). *Understanding Emotions*. Blackwell, Oxford.
- O'Donnell, M. (2008). Demonstration of the UAM CorpusTool for text and image annotation. *Proceedings of the ACL-08: HLT Demo Session (Companion Volume)* Columbus, Ohio, Association for Computational Linguistics, 13-16. <https://doi.org/10.3115/1564144.1564148>
- Onega, S. & Landa, J. (1996). *Narratology: An introduction*. London, Longmans.
- Paran, Amos. (2008). The role of literature in instructed foreign language learning and teaching: An evidence-based survey. *Language teaching*, 41(4), 465-496. <https://doi.org/10.1017/S026144480800520X>
- Phillips, B. (2008). Speculative realities: Embedding Science Fiction, Fantasy, and Horror Themes in Adapted Interactive Drama Scenarios (Adapting Literature to Interactive Drama). *Journal of Interactive Drama*, 3(3), 46-58.
- Phillips, B. & Cheng, M. (2005). Writing interactive drama role plays for the language classroom: Bridging the gap between learning and teaching (teacher-centered and learner-centered methods for creating role plays). *Selected Papers from the Fourteenth International Symposium on English Teaching*. Taipei: English Teacher's Association of the Republic of China.
- Polanyi, L. & Zaenen, A. (2006). *Computing attitude and affect in text: Theory and applications*. Springer, USA.
- Pulido, D. (2003). Modeling the role of second language proficiency and topic familiarity in second language incidental vocabulary acquisition through reading. *Language Learning*, 53(2), 233-284. <https://doi.org/10.1111/1467-9922.00217>
- Qu, B. (2007). Subject and subject: English teaching and learning in China. *Changing English: Studies in Culture and Education*, 14(3), 349-361. <https://doi.org/10.1080/13586840701711974>
- Read, J., & Carroll, J. (2010). Annotating expressions of Appraisal in English. *Language Resources and Evaluation*. <https://doi.org/10.1007/s10579-010-9135-7>
- Ruddell, R. & Unrau, N. (2004). *Theoretical models and processes of reading*. International Reading Association, Newark DE, 5th edition.
- Savvidou, C. (2004). An integrated approach to teaching literature in the EFL classroom. *The internet TESL Journal*, 10(12), <http://iteslj.org/Techniques/Savvidou-Literature.html> (October 14, 2013)
- Scherer, K.R., Schor, A., Johnstone, T. (eds.) (2001). *Appraisal processes in emotion: Theory, methods, research*. Canary, Oxford University Press.

- Scott, V. & Huntington, J. (2007). Literature, the interpretive mode, and novice learners. *The Modern Language Journal*, 91(1), 3-14. <https://doi.org/10.1111/j.1540-4781.2007.00506.x>
- Showalter, E. (2003). *Teaching literature*. Blackwell, Oxford.
- Smagorinsky, P. (2001). If meaning is constructed, what is it made from? Toward a cultural theory of reading. *Review of Educational Research*, 71(1), 133-169. <https://doi.org/10.3102/00346543071001133>
- Taboada, M., Brooke, J., Tofiloski, M., Voll, K., & Stede, M. (2011). Lexicon-based methods for sentiment analysis. *Computational Linguistics*, 1(1), 1-42. https://doi.org/10.1162/COLI_a_00049
- Tomlinson, B. (2011). *Materials development in language teaching*. Cambridge, Cambridge University Press. <https://doi.org/10.1017/9781139042789>
- Vaish, V. (2008). *Biliteracy and Globalization: English language education in India*. Clevedon UK, Multilingual Mates. <https://doi.org/10.21832/9781847690340>
- Wang, Yiqiu. (2006). General Education and Cultural Attainment Education in the University. *Peking University Education Review*. DOI: cnki: ISSN: 1671-9468.0.2006-03-003
- Wiebe, J., Wilson, T. & Cardie, C. (2005). Annotating expressions of opinions and emotions in language. *Language Resources and Evaluation*, 39(2-3), 165-210. <https://doi.org/10.1007/s10579-005-7880-9>
- Widdowson, H. (2003). *Defining issues in English language teaching*. Oxford, Oxford University Press.

Appendix 1. Attitudes data from reflections on the difficulty of adapting English playtexts

ATTITUDE (N=1542)								
	negative (n=669, 43.39%)				positive (n=873, 56.61%)			
AFFECT	n	%	% ATT	examples	n	%	% ATT	examples
dis/inclination								
fear	1	0.15	0.06	not afraid	5	0.57	0.32	fear of, afraid of
desire	58	8.67	3.76	didn't want	32	3.67	2.08	want
un/happiness								
misery	12	1.79	0.78	unhappy	2	0.23	0.13	not happy with
antipathy	13	1.94	0.84	hate, strongly dislike	-	-	-	-
cheer	1	0.15	0.06	sad	64	7.33	4.15	happy with, joy
affection	3	0.45	0.19	couldn't like	56	6.41	3.63	liked, like
in/security								
disquiet	13	1.94	0.78	anxiety	3	0.34	0.19	startling
surprise	9	1.35	0.58	shocked	31	3.55	2.01	surprising
confidence	17	2.54	1.10	not sure	29	3.32	1.88	sure, comfortable
trust	3	0.45	0.19	didn't believe	42	4.81	2.72	believe
dis/satisfaction								
ennui	4	0.58	0.26	bored, boring	9	1.03	0.58	not dull, not boring
displeasure	86	12.86	5.58	upset, unhappy with	-	-	-	-
interest	48	7.17	3.11	not interesting	65	7.45	4.22	interesting, interest
pleasure	11	1.64	0.71	not pleased with	59	6.76	3.83	pleased with
JUDGMENT								
social esteem								
normality	73	10.91	4.73	strange, too ordinary	69	7.90	4.47	special, distinctive
capacity	61	9.12	3.96	cannot, not able to	72	8.25	4.67	can, able to
tenacity	3	0.45	0.19	feeble	6	0.69	0.39	persistent
social sanction								
veracity	42	6.28	2.72	not truly, not like	30	3.44	1.95	real, true to
propriety	39	5.83	2.53	not properly	37	4.24	2.40	right, correct
APPRECIATION								
reaction								
impact	23	3.44	1.49	too average, unexciting	67	7.67	4.35	fabulous, fascinating
quality	26	3.89	1.69	horrible, offensive	89	10.19	5.77	charming, beautiful
composition								
balance	49	7.32	3.18	didn't match	41	4.70	2.66	harmonious, matching
complexity	71	10.61	4.60	too complicated	44	5.04	2.85	details, intricate
valuation								
worthwhileness	3	0.45	0.19	not worth it	21	2.41	1.36	worthy, meaningful
<i>Cohen's κ: Po: 0.926 f-m: 0.909</i>								

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).