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Developing Independent Listening Skills for English as an Additional Language Students

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This paper describes an action research project to develop online, self-access listening resources mirroring the authentic academic contexts experienced by graduate university students. Current listening materials for English as an Additional Language (EAL) students mainly use Standard American English or Standard British pronunciation, and far fewer materials use Australian or regional accents. Materials are also simplified or spoken at a slower speed, emphasizing comprehension-type questions, despite the fact that literature reveals effective listening development involves practice in real-life listening contexts. Academic listening materials conversely emphasize the formal lecture and development of note-taking skills. We developed a range of activities where listening input was accompanied by materials reflecting top-down and bottom-up strategies as well as other cognitive and meta-cognitive skills. Materials were developed over two action research cycles involving EAL research student participants. Paper-based exercises were trialed and then developed into online materials where students could create their own listening materials and build portfolios. Results from the participants in the workshops/focus groups indicate they were able to develop their listening skills independently because of the explicit and focused approach of the materials. However, even more explicit and simple instructional design was needed when translated into the online environment.

Listening comprehension is a vital skill in all areas of academic life. Effective listening is required in order for higher education students to understand formal lectures and tutorials, as well as to interact with other students in small groups, in project work, and in social situations. Graduate students have the added challenge of participating in a range of informal interactions in laboratories, in supervision meetings, at conferences, at public lectures, and in communication with research participants. Therefore, in order to transition into an academic English learning environment, international and other English as an Additional Language (EAL) students require both formal note-taking skills and informal, real time, interactive listening skills.

Research has suggested that international EAL students experience significant challenges as a result of differences in culture and language and that they struggle to integrate with their local peers (Barron, Gourlay, & Gannon, 2010). Developing the listening skills that will facilitate effective integration into the local university and external environment can be particularly daunting for EAL students studying outside of North America or the United Kingdom who also have to contend with the added challenge of becoming familiar with the new accent. These accents are often unfamiliar to international EAL students because their previous exposure to western English accents has been largely confined to Standard North American English (SAE) and Received Pronunciation (RP) (also called BBC English) British accents in the popular media. In addition, an examination of English listening materials reveals that there is a predominant slant towards the creation of materials that reflect SAE and RP accents.

University academic staff often find catering to a rapidly increasing international student cohort challenging: they experience difficulties meeting students' academic and linguistic needs and require additional support from academic developers (Barron et al., 2010). With large cohorts and significant student needs, online language support is often heralded as a viable option. Currently, there is a wide range of EAL listening material embedded in textbooks, DVDs, and online. However, this material often involves simplification with an emphasis on answering basic comprehension questions which does little to facilitate the range of high level skills required in authentic academic listening contexts. This is also the case in the Australian context where this study was conducted.

In Australian pre-enrollment English programs, EAL teachers have relied for some time on the materials created by a company called JANCO for naturalistic listening materials to prepare students for listening in everyday contexts. These materials ask questions based on the Australian Broadcasting Corporation (ABC) program *Behind the News* (BTN). Although useful for low-level learners, the television program itself is aimed at Australian primary school children. Therefore, the content is inappropriate for adult learners, and the speed and simplicity of the delivery does not mirror the real life experiences that students will face when studying in Australia, especially in research contexts.

The current academic English offerings likewise do not reflect the real-life communication scenarios faced by EAL students in an Australian university. An examination of academic English listening materials reveals that the listening activities are "cleaned up" for

publication, do not fully replicate the lecture/ tutorial environment, and emphasize the answering of comprehension questions. In addition, there is no opportunity for renewal and for students to collect and explore their own listening portfolio. Finally, the currently available material focuses on pre-enrollment students.

A review of post-enrollment materials currently available online and in advertised workshops conducted by academic developers at Australian universities reveals that very little emphasis is placed on listening skills. The limited offerings available, such as note-taking workshops, focus on formal lectures rather than other less structured contexts, yet anecdotal evidence suggests that many students experience problems listening in academic contexts outside of formal lectures, particularly in their interactions with other students, lecturers, and the public. Another major element missing in listening materials is that they tend to be static and focused on materials or contexts determined by the academics developing them. This contrasts with trends in online learning that suggest that "21st century learners" require resource delivery that is "just enough, just in time, and just for me" (Peters, 2007, p. 1)

To address this need, we undertook a research project to develop a range of online self-access materials for EAL undergraduate and graduate learners which they could use as much as they needed when they needed and included the content that they needed. These materials were informed by a thorough review of the relevant literature, are based on an understanding of the variety of academic listening contexts faced by students, and follow best-practice for online learning material development. They were refined through two cycles of participatory action research.

Research Procedure

Participatory action research was selected as a mode of inquiry for this study since it is a method grounded in practical action aimed at solving immediate problems and at the same time developing theory (Baskerville, 1999). Participatory action research involves and engages all stakeholders (Zuber-Skerrit, 2002), thus it is appropriate for solving an issue relevant to all stakeholders in the development of listening skills for university students. Participatory action research requires the commitment of participants to be effective (Greenbank, 2007). We engaged international graduate research students participating in a researcher education program in the study since they had identified listening as a particular challenge preventing their effective integration into their disciplinary communities and in communication with the public in research activities. Thus it was in the interest of the participants to develop a tailored solution to their immediate challenges. Also, this is a cohort rarely targeted in EAL listening materials. All the graduate students in the researcher education program over the period 2011 and 2012 were actively informed of the process, and they directed the focus of the research throughout in the form of active data collection on large sheets of butcher's paper in the focus groups and commenting and clarifying data presented to them by the two lecturers/primary researchers. The research was developed in two cycles since, according to Melrose (2001), rigor in action research and better practice are enhanced through more than one cycle, including critical reflection and evaluation of current practices. We therefore followed the steps for participatory action research outlined by Drummond and Themessl-Huber (2007) in each cycle:

1) Identification of the issue (and refinement based on the relevant theory)
2) Implementation of initial intervention strategy
3) Evaluation of results
4) Further expansion and refinement
5) A new action research cycle development

The results of the two action research cycles and the steps followed within each cycle are described below in the text and summarized in Table 1 below.

Cycle 1: Development of Listening Strategies and Materials

Identifying an issue and appropriate theory. Research students (n = 72) responded to a question on their most significant research communication challenges and training needs as part of questionnaire evaluating a researcher education program for international graduate research students over two semesters in 2009. This formed part of the standard evaluation cycle for the program. Although the participants responded positively regarding the writing and speaking component of the program, they reported that they had significant unmet needs regarding listening in academic contexts and during data collection interactions with the public (Velautham & Picard, 2009). This finding was confirmed in focus groups of research students which were conducted in their seminar groups by the two lecturers who taught the program in 2011 over three semesters and who performed the dual role of researchers and lecturers. This program utilized a unique pedagogy with the students where they were treated as "collaborating colleagues" (Velautham & Picard, 2010, p. 624). In this pedagogical approach, it is customary for the students to negotiate their own curriculum based on the needs of all students in a disciplinary/paradigm group. The participants were presented with the findings of the

Table 1
Summary of Participatory Action Research Cycles, Procedure Followed, and Timelines

Action Research Cycle Element		Procedure Followed	Timeline
Participatory Action Research Cycle 1			
1	Identify issue (and refine based on the relevant theory)	a) Questionnaire on research communication challenges and needs submitted to all EAL students in a researcher education program	a) 2009
		b) Initial literature review conducted	b) 2010 to 2011
		c) Focus groups with program participants over 3 semesters	c) March to December 2011
2	Implementation of initial intervention strategy	a) Confirmation of areas of need for intervention in focus groups over 3 semesters	a) March to December 2011
		b) Design of initial activities	b) December 2011 to March 2012
		c) Presentation of paper-based activities: *Listening for details; Word Segmentation, Decoding Accents, Prediction and Structure of Discourse,* and *Understanding Inferences* in 2 seminars over a semester	c) March to May 2012
		d) Feedback received in two lectures from focus groups on butcher's papers	d) March to May 2012
3	Evaluation of results	a) Results processed by primary researchers/lecturers	a) May to June 2012
4	Further expansion and refinement	a) Development and trialing of *Everyday Listening* website and materials emails sent to all participants in c. 10 responses received in Seminar group and 20 via e-mail.	a) June to August 2012
Participatory Action Research Cycle 2			
1	Identify issue (and refine based on the relevant theory)	a) Need to evaluate online environment and use more carefully identified by primary researchers and confirmed with participants in 4 of Cycle 1.	a) June to August 2012
2	Implementation of initial intervention strategy	a) Everyday website and materials developed in Cycle 1 introduced and trialled with two new groups of participants in Lectures	a) August to December 2012
3	Evaluation of results	a) Focus groups held at the end of the lectures and in seminar groups with the whole group (40 out of 42 responses received) as well as 4 negotiated participants who did not attend the lectures/seminars, but completed activities	a) August to December 2012
4	Further expansion and refinement	a) Instructions refined and additional file formats for the uploading of listening portfolio materials provided, materials changed to different software format for ease of use. Timer added, but later removed on advice from participants.	a) December 2012 to March 2013

initial questionnaire and were asked to specify the communication issues indicated in the questionnaire data and otherwise that most significantly impacted on their learning as graduate students, as well as provide the reasons for this. The participants (n=120) overwhelmingly reported that despite receiving high listening scores in international language examinations, they had difficulty listening in unstructured contexts where they were only able to listen once and there were other distractions.

As recommended by Drummond and Themessl-Huber (2007), the two researchers, who are also lecturers in the research communication program, conducted a literature review to develop theory on the topic. We searched the University's library database which includes access to all the major Language and Education databases (such as Google Scholar and Academic Search Premier). The researchers used a very general search term "listening" in the first instance, since the field of listening research is extremely broad. Thereafter, the researchers limited the search to the following fields: "listening comprehension", "communication," "teaching methods," "ESL learning," "academic achievement," and "students." Fields such as "school children" and "social justice" were removed. The search parameters were also limited to research articles. Then, the timeline for publications was refined to 1990 to 2012. A total of 1257 articles were identified through this process and key authors were located. The researchers read the abstracts of all the articles and further refined the data to those referring to post-school level students. Finally over 300 journal articles were identified and key authors cited were highlighted. This lead to the identification of the three key review articles described below. A search for journals with "listening" included in the title was also made in the library database. Only four journals were found, and these were found to focus on children's listening and health rather than adult learners. A general literature review, followed by more details on specific issues identified in the literature, is presented below.

Listening: a general literature review. The review described above identified three landmark review articles on the teaching of listening to EAL learners between 1990 and 2012 which summarize the main trends in listening research relevant to students with English as an additional language: Rubin's review of listening comprehension research in 1994, Van der Grift's article focusing on more recent developments in the field in 2007, and Lynch's comprehensive analysis of a decade of academic listening research in 2011. Unfortunately, the literature on this skill has remained limited with all three reviewers noting its under-researched status. They further expound on the difficulties associated with researching and teaching listening, including the interrelatedness of listening with other language skills and the influence on listening of linguistic, social, and cultural factors related to the listener, context, interlocutor, and the nature of the text or interaction. In terms of teaching listening processes, all noted the importance of teaching both top down strategies ("knowledge of the world, situations, and roles of human interaction" (Rubin, 1994, p. 210) and bottom-up strategies ("knowledge of words, syntax, and grammar" (Rubin, 1994, p. 210) and the importance of this processing happening simultaneously. Rubin (1994) also noted the need for more research into a top-down understanding of text genre.

This call was taken up as noted in the subsequent reviews with a number of studies describing the effect of different text genres on students' performance in listening assessments in controlled experiments (Lynch, 2011; Vandergrift, 2007). This awareness of text-type has also impacted the teaching of listening with the application of the genre based approach which unpacks the rhetorical and characteristic language structures in listening texts in order to assist in academic note-taking (Flowerdew & Miller, 2010).

Another issue described by Van der Grift (2007) and Lynch (2011) is the fact that the nature of formal lectures has changed dramatically over the past decade. Students are now just as likely to receive input from competing media and experience workshops or even task-based collaborative learning environments as a formal lecture. Even the lecture format has changed with PowerPoint slides and video clips now standard fare in large lectures. This is confirmed in a study by McKnight (2004) who found that students who attended lectures devoted their attention to copying material that was visually depicted instead of listening to the lecture.

Despite this new awareness of the changes in, and effects of, listening text-type, little advice is given to pre-enrollment English for Academic Purposes (EAP) teachers. Even less advice is provided for academic developers post-enrollment or to the university students who are attempting to develop the required variety of listening skills. The EAP literature focuses on testing and manipulating variables for various levels of competency and to ensure test validity, while the academic development literature emphasizes reading and writing or formal oral presentation skills.

Because of this lack of theoretical and pedagogical input, EAP teachers and academic developers are reduced to relying on English textbooks which contain manipulated mini-lectures based on assumptions of micro and macro skills (Goh, 2002; Van der Grift, 2003). These often use genre theory, but then expect students to extrapolate classroom exercises to real academic situations. This is an unrealistic approach because textbook materials are simpler, slower, and

without the distractions of real life. The task types are also different from real life interactions where tasks need to be anticipated from the context, requiring specialized knowledge of context, culture, and variety of English, rather than just listening for a specific answer. Also, real life academic tasks most frequently involve bi-directional listening (where the student is both listener and speaker) (Vandergrift, 2007). This is in contrast to textbook approaches and most online listening materials which often test memory, reading, and writing skills rather than authentic listening.

Despite calls for the creation of authentic listening materials (Lynch, 2011), relatively little has been done, largely due to the fact that programs that arrange lectures by academic staff have difficulty meeting the needs of the various disciplines since language is embedded in disciplinary discourse (Becher & Trowler, 2001). Furthermore, little advice is given on how to teach or learn the important top-down or bottom-up skills highlighted in the literature.

Our initial aim, based on the literature review summarized above, was to address this teaching and learning gap by providing online listening materials for post-enrollment EAL graduate students which they could access and create themselves and would be more reflective of authentic listening environments. The next section of the paper describes the specific paper and web-based listening activities designed by the two lecturers/primary researchers based on the areas of need identified and confirmed by the participants/co-researchers in 2011, the literature/ theory related to these initial interventions, a brief evaluation of the initial results, and further expansion and refinement of each intervention.

Implementation, Evaluation, and Refinement of Initial Intervention Strategy

Listening for details. The literature highlights that the bottom-up listening skills that EAL students find particularly challenging are recognizing sounds as distinct words or groups of words (Goh, 2000; Vandergrift, 2007) and identifying specific facts within a stream of speech. These problems at the perception stage are often a result of difficulties in focusing of attention. In EAP classrooms and textbooks, this skill is often described as Listening for Details. However, as noted earlier, EAP materials are usually simplified and do not reproduce the speed of delivery and the need for real time response of authentic listening contexts. To address these issues, we trialed an example of a Listening for Details activity in two listening workshops in 2012 for graduate students using a video from an authentic Australian television program freely available on the public broadcaster (ABC) website. These workshops were part of our standard provision for EAL graduate students focusing on a range of research communication issues, and therefore only one workshop (repeated twice at different times in the semester) was dedicated to this topic. Students were expected to listen and complete a text with missing words.

We spent the last fifteen minutes of each of the two-hour workshops asking the students to provide group feedback (on butcher's paper) regarding their perception of the different materials provided. The Listening for Details intervention was positively received by the 33 participants attending the two workshops as they noted that it helped them to focus in on details. However, they indicated that a single exercise on a website would not provide sufficient and targeted practice and that they required material that was relevant to their specific disciplines and areas of interest. Hence, with the aid of a web developer, we developed a publically assessable central website (Everyday Listening Material, http://everydayenglish.org.au/). The front page of the website is provided in Figure 1 below.

Within this website, we placed the example exercise. Students are expected to listen and complete a text with randomly generated missing words (Figures 2 and 3). Thereafter, they are encouraged to create their own listening portfolio with audio and audio-visual material where the script is available from authentic materials in the public domain. They name the exercise, upload the audio, and paste the script into the "content" box, and then the program randomly generates missing words (Figures 2 to 4). This scaffolded process practices targeted attention while listening to authentic Australian media presentations and then provides software for students to generate their own listening portfolio and practice the skills they have developed. Therefore, they are able to develop their own "just for me" (Peters, 2007, p.1) (and my discipline) materials.

Although the materials are self-access, the activities involve explicit pedagogy since, as argued by Brown and Krager (1985, p. 406), the "'thrusting' of autonomy upon students without appropriate scaffolding and explicit instruction can lead to 'setbacks and perhaps greater dependence." Therefore, the activities carefully unpack the various listening contexts and skills. In the first stage, the contents and skills are explained using example audio material and activities. Then, students can either upload their own materials and generate their own listening exercises or apply a template to their own material. This process aims to develop what Brown and Krager describe as "competent autonomy" (1985, p. 406). These materials were developed based on the literature highlighted above and the contexts described by the research student participants in the focus group discussion and program evaluation.

Figure 1
Everyday Listening Materials Webpage

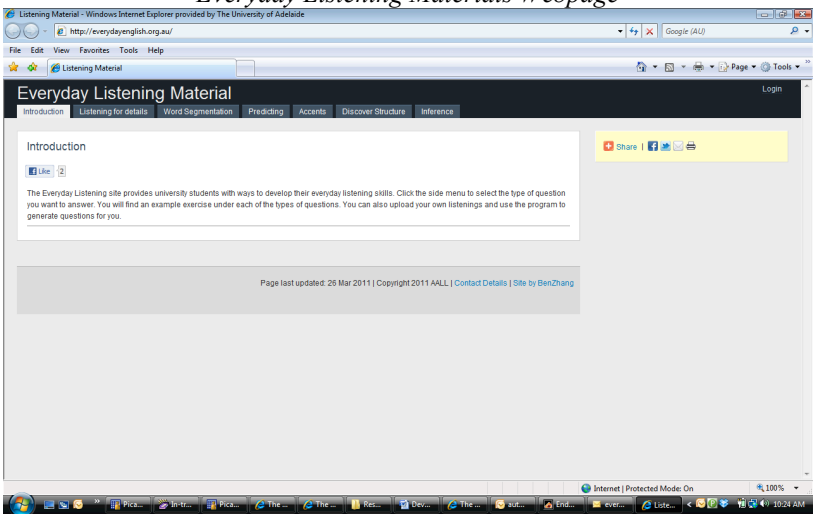
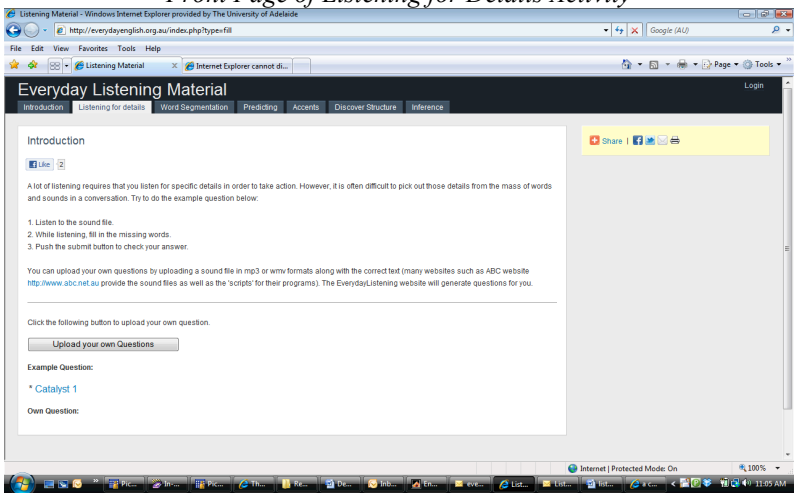


Figure 2
Front Page of Listening for Details Activity



Word segmentation. Another perceptual issue related to listening for details is that EAL listeners often have difficulty in segmenting phonemes and parsing the stream of speech into meaningful sounds, words and phrases (Goh, 2000; Vandergrift, 2007). This is particularly challenging in Australian English where the division of the sound stream is unfamiliar to students accustomed to predominantly North American or British materials. This is also an issue for EAL students integrating into areas in North America or Great Britain with strong regional accents. To address this issue, we once again provided a paper-based exercise where we removed the spaces between words on a script of an audio text from the public broadcaster. The graduate student participants (n33) were required to add a single vertical dash between words and a double vertical dash at the end of each sentence. The paper version was favorably received by the participants of the listening workshop/ focus group (described above), and this exercise was added to our online listening website (See Figure 5). However, they noted that doing the exercise on paper slowed down the process of word segmentation.

The materials once again scaffold the skill by providing an example question using freely available media. The example question consists of a sound file and a continuous stream of letters without breaks for words or sentences (front page of activity as shown in Figure 6). The task is to distinguish between words and sentences. The students need to put one carriage return

Figure 3

Example Question and Audio Player

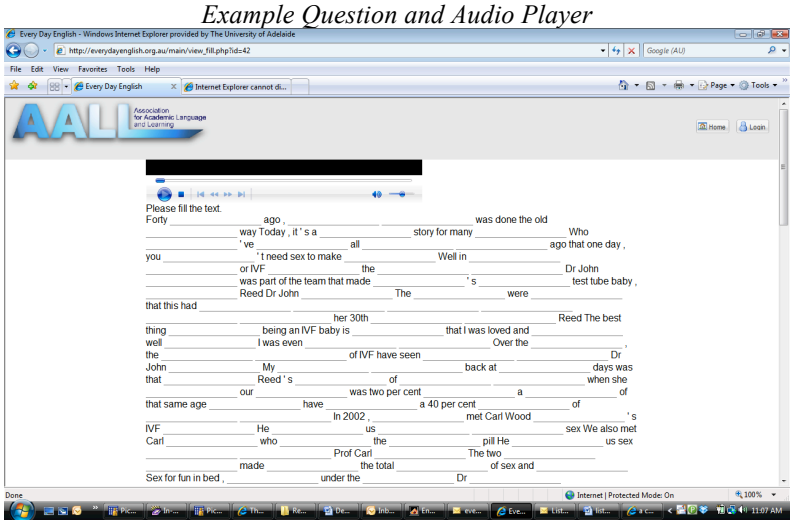
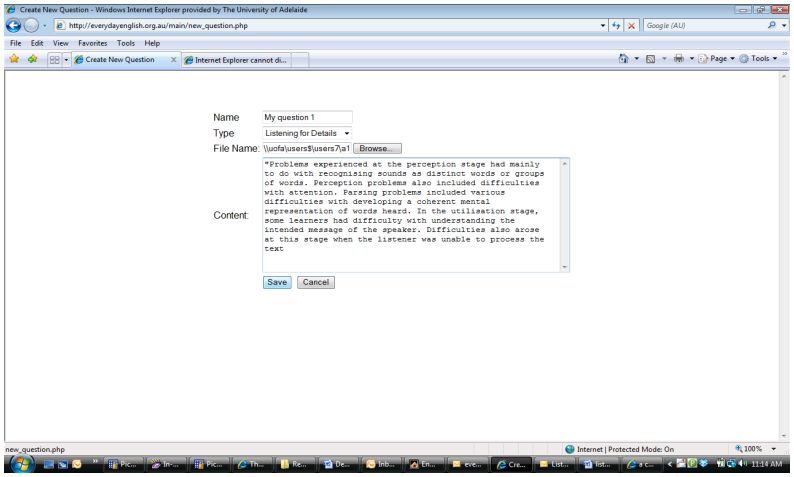


Figure 4

Students Generate Their Own Material



between each word and two carriage returns at the end of each sentence. The software then marks the answers for them. They are also able to create their own question from any audio-visual that has a script as in the exercise above. Here, the software removes all spaces between words and sentences after the students have uploaded their own questions. This process is then repeated as depicted in the example (Figure 6).

Initial evaluation and critique after a five-week trial of this activity from participants (n=20) contacted online who completed the activity was that they preferred the paper-based exercise since they found that the web exercise became a reading rather than listening activity. On further questioning it was discovered that in the paper-based activity the involvement of the lecturer had forced the participants to segment during the listening, while in the web-based activity they were segmenting after completing the task and thus the focus turned to reading. To address this issue, we added the following instruction on the word segmentation front page: "The example question is extremely fast, but try to press the space bar while you are listening and it will help to train your ear to distinguish words really quickly. Try the activity several times to see if you can increase your correct answers". Responses from the three participants who retried the activity were positive. Further software refinements that force participants to immediately complete the activity were then sought.

Decoding accents. As mentioned above, Australian accents can be challenging for EAL students. This is because they are unfamiliar with the intonation, chunking, and pronunciation of Australian spoken

Figure 5

Front Page of Word Segmentation Activity

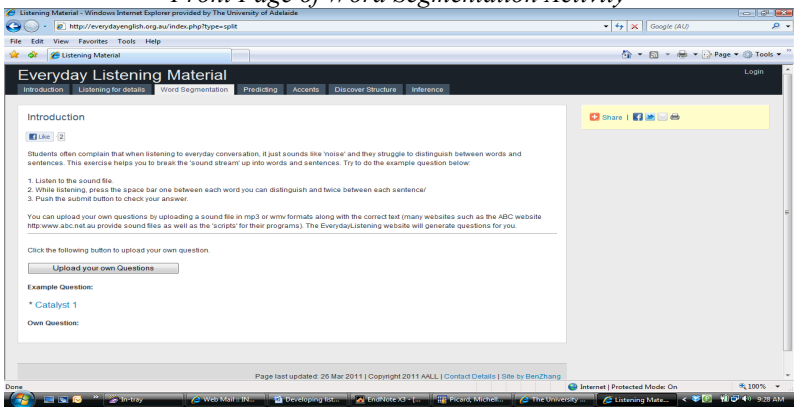
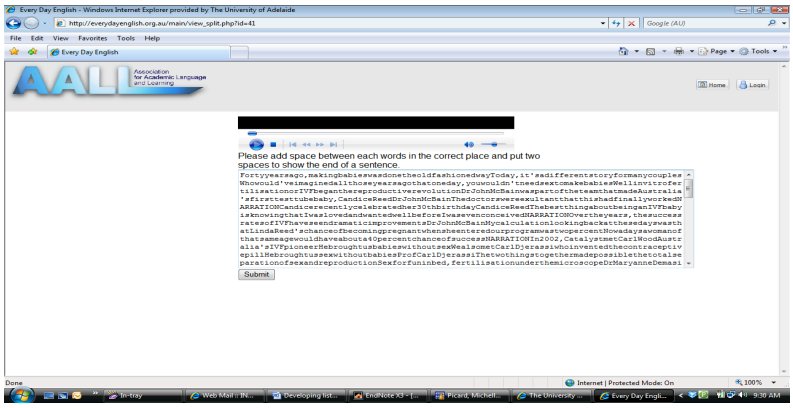


Figure 6

Exercise Produces Text as a Continuous Sound Stream



communication. When listeners are unfamiliar with a variety of a language, they also have difficulty differentiating between content and sentence fillers (Vandergrift, 2007). We therefore initiated several activities addressing phonetic knowledge and the ability to listen to and chunk unfamiliar pronunciation in everyday authentic interactions. The graduate student participants were introduced to the Australian vowel and consonant chart in the workshop and provided with examples of authentic Australian interactions in the various regional accents. They then listened to a sound file from youth Australian media with strong Australian accents and had to remember as many of the facts as possible to answer comprehension questions. However, as in real life communication, they were only provided with the questions after listening to the text and were expected to respond immediately. The comprehension exercise was then marked, and this served as a diagnostic exercise. When reflecting on this exercise in the last 15 minutes of the class, the participants at the listening workshops/focus groups reported that it replicated authentic listening contexts where no advice or focus was given, and they found it difficult to chunk aural text and identify meaning.

At this stage, the participants were given the template for targeted listening (see Table 2 below). They were provided with a second challenging listening and were requested to focus their listening according to the template. A considerable improvement of 3-5 marks out of 20 was shown by the vast majority of the participants (n=30 out of 33). We therefore added the Australian vowel and consonant chart to the website along with links to websites with visual and aural information on Australian sounds. An example of listening comprehension is provided, and after students complete the exercise, the software marks the students' answers. They are then given advice on uploading their own materials from the public broadcaster youth radio station and provided with the template for listening and responding (Table 2). This same template, with the addition of a response question (Question 7, Table 2), can be applied in real-time interactions.

Table 2
Template for Targeted Listening

Question	Relation to Aural Text
1. Who is speaking, and who is spoken about?	Why are they important to the speaker and listener?
2. What is the major topic?	What response is expected from the listener to the topic?
3. What numbers and key details are highlighted?	How do these relate to the major topic?
4. Why are particular locations spoken about?	What relevance do these locations have to the speaker or listener?
5. How does the supporting information add to the major topic?	What response is expected from the listener to this supporting information?
6. What information is repeated?	Why is this information emphasized?
7. When is the listener expected to respond?	What verbal cues are given that a response is required?

Participants were advised to use the template consciously at least five times in practice exercises. The aim was that through constant practice with challenging authentic materials as well as an understanding of the sounds and intonation patterns, the students would become familiar with Australian accents and learn to distinguish between important and filler information. The participants who responded after the five-week trial (n20) indicated unanimously that this was a useful activity. They also reported varying levels of participation from using the template twice to fifteen times. Therefore, suggesting once again, the need for students to select what is "just enough" (Peters, 2007, p. 1) for their learning needs.

Prediction and structure of discourse. Bottom-up skills such as dividing the sound stream into meaningful units, identifying word boundaries, understanding details, and differentiating between content and sentence fillers are all important skills. However, according to the literature, students often miss vital information when they stop to think about unfamiliar words or the interpretation of part of a text (Goh, 2000). Research on item difficulty in listening tests has indicated that speech rate and length of text, especially the use of unnecessary information, have a negative impact on lower level students' listening scores. Rather than enhancing listening, repetition can actually reduce performance (Brindley & Slatyer, 2002; Cervantes & Gainer, 1992; Chiang & Dunkel, 1992). This data in the literature was also reflected by the graduate student participants in the initial focus groups in 2011 (n120) who noted that they often felt embarrassed when speakers repeated something many times or spoke more loudly, yet their understanding did not increase. However, when they were prepared for an interaction and could predict the possible content, they could follow the listening text more easily.

Based on the identified needs of the students and the literature, we therefore aimed to enhance the speed and accuracy of their processing abilities by using top-down skills such as prediction and structural analysis in combination with bottom-up skills. We introduced students in the workshops (n=33) to a paper-based exercise where they were provided with a lecture from the public broadcaster. The lecture format was selected because this was a genre that the participants were familiar with. The response from the graduate student participants was that although the example lecture was a challenging one, because they were familiar with this genre, they were able to focus on the important information, leave out the filler information and predict the content to come using the discourse structure as a guide. However, several of the participants noted in their seminars groups five weeks later (n=10) and via email (n=20) that they were concerned that more informal interactions with their research supervisors or the public would not conform to this structure.

In response to this feedback, we therefore provide the students with three different types of audio-visual material on our website: lectures, public interactions (an extract from a television current affairs program), and one-on-one interactions between a student and a research supervisor. In the first exercise, as in the paper-based exercise, the students are provided with a lecture from the public broadcaster. They are given a few clues about the context of the lecture and then listen to the introduction of the speaker by the Master of Ceremonies. From this, they are required to predict the possible topic, the macro-organization of the lecture (e.g. cause and effect, chronology etc), discourse moves, and take-home message, and they set up their own template for taking notes. This is a guided process where they make choices and a template based on those choices is generated. Thereafter, they listen to the remainder of the lecture and take notes using the previously generated template and then answer comprehension questions. They are finally provided with answers to the comprehension questions and an example set of notes. After this scaffolded activity, the students are encouraged to download their own examples of lectures from the public domain and apply the given template to these materials. They are also

encouraged to listen to recordings of their own course lectures and apply the template to these presentations. This is also the case in the second exercise; however, the aural text and template in this case are less structured and formal than the public lecture in the first exercise since there are interruptions by reporters on the panel discussion. They are encouraged to apply this template to similar media interactions.

In the third exercise the students listen to a research supervision meeting between a student and her supervisor. They are provided with a template for taking notes in a research supervision meeting (Figure 7 below) and take notes while they are listening to the interaction. They then check their notes with the example notes taken and are encouraged to record their own supervision meetings (with permission of all participants concerned) and apply the note-taking template to these meetings. A template for meetings with an undergraduate or coursework lecturer is also provided.

In all three of these activities, the aim is to enable students to focus on the essential information scattered throughout a listening text or interaction and ignore redundancies by attaching information to existing schemata or note/discussion structures (Lynch, 2011). Three respondents completed the updated activities and reported that they found them useful in email communication.

Understanding inferences. Despite having an understanding of the literal meaning of the words, Goh (2000) demonstrated that students are often unable to comprehend the complete meaning of the message. This utilization problem "relates to the listeners' (in)ability to make useful elaborating inferences, or act on the intended meaning of the message" (Goh, 2000, p. 56). The predicting activities described above potentially assist students in understanding inferences since they are aware of the context, topic, and discourse frameworks within which inferences are created. In our two workshops, we provided the graduate students with advice on how each type of interaction requires a different type of preparation from the listener as indicated in Table 3 below. However, there are still likely to be breakdowns in communication in real-time, dynamic interactions.

Most of the listening literature focuses on what the speaker or lecturer can do to facilitate better understanding. However, we argue along with Lynch (2011) that it is more useful to empower the listeners to take control of the interaction and facilitate their own listening. For this to occur, they need to hone their metacognitive listening skills (Vandergrift, 2004; 2007). Fifty percent of the graduate student participants (n60 out of n120) reported in the initial focus groups that they often felt disempowered when interacting in authentic contexts, especially when there was a power differential (such as in the research supervision context). Therefore, in the workshops we taught the students interactive listening skills such as "think aloud strategies" (Vandergrift, 2007) and concept checking with the interlocutor, along with skills to change the nature of the interaction. Discussions and reflection on real contexts that the students had encountered were undertaken in this part of the workshop. However, the challenge was to provide web activities to replicate this process.

In our final set of activities on the website, we therefore take the students through Van der Grift's (2004) stages of listening instruction and related metacognitive strategies and apply these to the same lecture in the public domain and panel discussion used in the predicting activity. These stages and strategies are presented, along with the specific activities in the exercise in Table 4 below. We have changed the heading "Stage of listening instruction" in Van der Grift's model to "Stage of listening activity" to reflect the fact that the student is taking control of his/her listening skills. After completing the exercise, the students are encouraged to apply these stages and strategies to their everyday listening. These activities received a positive response from the 20 participants who responded to our follow up email.

Cycle 2: Enhancement of Online Materials

After evaluating and refining the content of the online materials developed in the first action research cycle, we moved to a second cycle which focused on refining the materials and website based on the challenges and strengths of the online environment. We introduced the already created online listening materials to two new groups of research students in listening lectures/ workshops in the second half of 2012; these totalled 42 participants (Semester 2 and Summer School cohorts). This was an important step since the literature reveals that, although the online environment is seen as an alternative to face to face instruction, pedagogy and instructional design that meets the needs of adult learners for scaffolding and explicit instruction along with the development of "competent autonomy" (Brown & Krager, 1985) is often neglected (Hodson, Connolly, & Saunders, 2001).

As in the literature, our EAL research student participants were generally positive about using the online environment to develop their listening skills; however, they experienced challenges related to information literacy and task design within the online environment similar to those reported by Hughes (2012). For example, although the participants found it easy to complete the listening for details gap-fill activity, since it was similar to other simple online activities they had previously completed, some (n=6) in the follow up workshops/ focus groups reported

Figure 7
Template for Note-Taking in Supervision Meetings

Topic/ Issue	Details
Completed tasks	
Current tasks	
Concerns/ Questions/Problems	
Things I would like you to do	
Ideas	
Other issues	
Current deadlines	

Note. Adapted from Bastian, 2006.

Table 3
Preparation for Understanding Inferences in Listening Texts

Context	Preparation required
In lectures	Pre-read lecture course handbooks, materials, listen to lecture outlines at the beginning of the presentation. Listen for discourse markers or language features indicating rhetorical 'moves'.
In supervisory and other meetings	Prepare/pre-read agenda, pre-read documentation and prepare your response, anticipate reactions and questions.
In daily life	Read the situation, emotions (watch body language and expression, contextual and situational clues, watch lips of speakers
The media	Read supporting information, listen for expository information, repetition, and blurbs

difficulties uploading their own materials and generating questions for themselves, which was a new activity. In response to this feedback, we refined the instructions for creating their own materials and made it possible to upload .wmv formats as well as the original .mp3 format since some of the available materials on the web were in this format. We also added the URLs of possible sources for content into the website as most of the participants (n=40) reported difficulty in finding appropriate material.

In the second activity, as reported above, we attempted to refine the word segmentation question to ensure the participants answered the question *while* listening rather than *after* listening. A timer was added to the exercise; however, this intervention was unsuccessful since all the participants who attempted the revised question (n=10) found that their response lagged slightly behind the listening and, therefore, they were frustrated as they were unable to complete the activity in time. The timer was therefore removed, and more explicit instructions were provided to the users.

The participants were asked about their use of the listening template for targeted listening in a follow-up focus group. Although most reported that the concept and activities in the class were useful (n=30) and those who had completed the online exercise on the website had found it useful (n=20), only a few participants (n=5) had created their own portfolios.

Of those who had not created portfolios, some responded that they had found the Microsoft Word template tricky to download (n=5), while others (n=10) had had difficulty applying the template in everyday contexts. We therefore changed the activity to a more user friendly format using Articulate Engage'09 software and added a .pdf format template for those who preferred a hard copy printout. We also added additional examples to further scaffold the activity for the students and provide extra practice. We provided more advice on how to embed the use of the template in everyday activities with scenarios and suggested uses of the template.

Table 4
Listening Stages, Strategies and Application

Stage of Listening Activity	Related Metacognitive Strategies	Application on Website
Planning and Predicting Stage		
Prediction of topic, text type, structure of information, types of information and possible words	Planning and directed attention	• Students read blurb for "Global Moment" listening • Students listen to Master of Ceremonies blurb and answer prediction questions: • Topic: Something about Universities and Globalisation of Universities/knowledge • Text type: Chronology • Structure of information: Starting with earliest universities and knowledge exchange till today • Types of information: Identification of characteristics of 'republic of learning' and examples of different aspects • Students construct a note-taking template
First Verification Stage		
Verification of initial hypothesis, correction if required, additional information noted	Monitoring	• Students listen to first few minutes of lecture • Students monitor initial information • Opportunity to add to template in the exercise
Comparison and/or concept checking with peers and/or interlocutor	Monitoring, planning and selective attention	• Check exercise to see if appropriate note-taking template was selected • Note errors and add or delete information in template • In real life, use concept checking e.g. "I understand x or y.... is this correct?".
Second Verification Stage		
	Monitoring and problem solving	• Based on information received in previous section, students continue to listen to the rest of the listening exercise and add to their notes. • They respond to comprehension questions in the exercise • In real life, they respond to situation, questions from the interlocutor based on their notes, verified information
Response from peers and/or interlocutor to listener's response	Monitoring and evaluation	• Students check their answers in the listening comprehension exercise • In real life, they verify the appropriateness of their response from the interlocutor's response • Students evaluate their response by adding to their initial response or by further concept checking (e.g. "Oh, I understood x, do you mean y?")
Final verification stage		
Targeted listening for gaps information gaps	Selective attention and monitoring	• In exercise, students listen to final summary of the lecture • In real life students listen carefully to response from interlocutor
Reflection Stage		
Development of goals for next listening activity	Evaluation	• In exercise, students reflect on skills they developed in the listening and their own weaknesses and strategies to overcome these. • They are then given examples of real life strategies to take control of the listening environment (e.g. concept checking, changing the nature of the interaction e.g. asking for the interlocutor to speak slower rather than louder).

Note. Adapted from Van der Grift, 2004, p.11.

As reported in the first action research cycle, we added aural texts from a current affairs program and a research supervision meeting. We provided predicting activities and templates for these. However, as with the targeted listening activity above, very few participants (n=6) reported practicing the predicting activity with lectures. A majority of the participants (n=27) reported that they had attempted to use the template in their supervision meetings; however, some of them (n=3) stated that their supervisors did not want them to record the interactions. We therefore decided to add additional examples of meetings in order to ensure practice online to scaffold the real, unsupported listening experiences. One of the participants had recorded the meeting without first consulting his supervisor and this had caused tension in their relationship. We therefore added information on the website to remind the participants always to request permission before recording.

The focus group responses from the second focus group also showed that the participants wanted more practice and explicit advice on how to apply metacognitive strategies to real-life situations. This was particularly the case with the small group of students who had used the website (n=4) but not attended the workshops/focus groups and had therefore not participated in the discussions on the use of metacognitive strategies in everyday situations. Consequently, we decided to add short questions and model responses for a series of everyday situations to guide online users of the materials. All changes were completed by the end of March 2013.

In general, positive feedback was received on those activities that the participants viewed as explicit, as good at providing sufficient practice, and as simple as possible in terms of instructional design.

Conclusion

Our review of the literature has indicated that the focus of listening research needs to shift from the test environment to real-time, two-way communication and bi-directional listening (Lynch, 2011; Vandergrift, 2007) and that listening involves a joint creation of meaning between listener(s) and interlocutor(s). Although authentic materials are valued in the literature, little advice has hitherto been provided for students and teachers to create and use these resources. Another challenge of authentic listening contexts is that the listeners have to integrate top-down and bottom-up skills simultaneously.

The materials on the Everyday Listening Material website are a first attempt to facilitate the development of authentic listening skills and to assist students to create their own listening portfolios relevant to their disciplinary contexts. This material also has the potential to assist academic developers who might find it difficult to teach listening due to its "ephemeral" nature (Vandergrift, 2007, p. 191).

Our feedback from the participants in the final focus groups/workshops (n=40 out of 42) indicates that they valued the explicit teaching of bottom-up and top-down listening skills and their scaffolded application within naturalistic contexts (Brown & Krager, 1985), but particular refinements are needed to explicitly scaffold "competent autonomy" within the online environment. Since adult learners tend to wish to apply their life experiences to their new learning environments and favour practical learning activities that draw on their prior skills and are relevant to their needs and interests (Wynne, 2012), explicit instructions and careful linking of the activities to their experience are necessary to engage the learners and ensure their application of the skills. Further attention to the social and psychological issues affecting listening proficiency is also still required, since as one participant noted, "But how do these activities help me when I get anxious?" As we remind the students on the website, "Anxiety closes ears"; therefore, they should focus on "what [they] get rather than on what [they] miss" and "cultivate an attitude of attentiveness" (http://everydayenglish.org.au/). However, further materials are needed to address these issues. The next action research cycle will involve a large-scale evaluation of the materials for a new cohort (postgraduate coursework students) along with an evaluation of the effect of the materials on students' listening proficiency in the short and long term. We will also evaluate the materials with students who have not attended the accompanying workshops.

Although the online materials were specifically for EAL learners and academic language and learning practitioners, the action research cycle has revealed some universal considerations for online learning design. Firstly, it is no longer useful to produce inflexible generic activities, particularly for graduate research students. Instead, online design needs to enable students to develop their own materials that are "just in time, just enough, and just for me [and my discipline]." Explicit instructions and careful linking of the activities to their experience are also necessary to engage the learners and ensure their application of skills. Careful scaffolding is a useful emphasis in all higher education teaching and learning contexts, but particularly in the online environment since we cannot assume that all our students are entirely competent in all online environments.

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