NETPhon: Network for Education and Training in Phonetics

Report on NETPhon Questionnaire: Current Practice in Phonetics Teaching for Speech and Language Therapy Students

April 1995

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NETPhon is a Higher Education Discipline Network supported by the Department for Education and Employment, and coordinated at University College London.

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1 BACKGROUND

1.1 Aims

The aim of the questionnaire was to allow collation of some basic information about current practice in teaching phonetics to Speech and Language Therapy students. An earlier questionnaire was circulated in 1992, but was concerned only with Practical Phonetics.

1.2 Circulation and returns received

The questionnaire was circulated in March 1995 to all educational institutions in the United Kingdom which are involved in the education of Speech and Language Therapists (16). Thirteen institutions returned questionnaires, although some responses were incomplete and one dealt only with a postgraduate course. Of the institutions offering undergraduate courses, nine offer four-year degree courses, two offer three- year degree courses and one offers the option of a three- year or a four- year course, all leading to a professional qualification in Speech and Language Therapy. The questionnaire was also circulated to other educational institutions on the PHONET electronic mailing list, and two responses were received from phonetics departments which are not involved in the professional education of Speech and Language Therapy students. These two responses are not included in this report. Data on four postgraduate courses were collected, but as these tend to be fairly flexible, in order to accommodate a range of undergraduate experiences, they will not be reported here.

1.3 Structure of the questionnaire

The questionnaire was designed to elicit basic information about course aims, duration, and class size, mirroring a previous questionnaire about practical phonetics teaching which was circulated in 1992, but extending the scope to cover instrumental and acoustic phonetics and general phonetic theory, and covering postgraduate as well as undergraduate courses. Practical phonetics, which is inderstood to involve perceptual analysis and transcription of speech and phonetic performance, is seen as a key clinical skill and is therefore treated in more detail than the other areas.

The questionnaire design was very simple, seeking only basic data on class size, contact hours, etc. and written description of such things as assessment methods and course objectives.

A copy of the questionnaire is attached as Appendix 1.

2. RESULTS: UNDERGRADUATE COURSES

Although the questionnaire is in three sections, reflecting the three main strands of phonetics, integration in teaching means that it is not always easy to differentiate clearly between the hours allowed for teaching and assessment of practical phonetics, instrumental phonetics and general phonetic theory. This report will therefore begin by presenting pooled data for all three strands, before examining each strand separately.

For each area of phonetics teaching, a question was included concerning the amount of self-study time students were expected to undertake. This reflects current practice amongst many modular courses of explicitly stating such targets. Many institutions, however, do not specify self-study hours, and it is in any case difficult to assess to what extent students comply with recommendations. The responses to these questions (Nos. 6, 14 and 19) are therefore not reported, but it is clear that many, if not most, courses demand a significant amount of self-study in addition to contact hours.

Relevant question numbers are given in brackets after each section heading

2.1 Phonetics as a whole

Number of staff available for Phonetics teaching (2, 3)

Two out of the twelve institutions responding to this question have only one member of staff, with no postgraduate assistance, to teach the whole of the phonetics curriculum, whilst one had as many as eleven staff teaching phonetics. The remaining institutions have between two and four members of staff involved in phonetics teaching. Four courses use additional postgraduate teaching input on a regular basis.

Contact hours (5, 13, 18)

Total student contact hours for devoted to phonetics as a whole vary considerably, with a range of 74 - 157 hours.

Distribution of institutions/hours taught (in 20 hour bands)

No. of hours	70-89	90-109	110-129	130-149	150-169
No. of inst'ns	3	1	3	3	1

The wide discrepancy in hours devoted to phonetics may reflect various factors, e.g.:

a) real differences in the relative importance different courses attach to phonetics teaching
b) differing teaching styles which vary in terms of the ratio of staff-student contact hours to self-learning hours
c) differences in availability of phonetics teaching staff
d) differing views about what constitutes "phonetics" teaching as apart from, say, phonology.

In many courses the teaching of phonetics and phonology is very closely integrated, and it is not easy to specify the division of teaching hours between these two subjects.

Some courses have additional optional hours available for phonetics teaching, mostly in the third or fourth years.

2.2 Practical Phonetics

Contact hours (5)

Contact hours for Practical Phonetics had a range of 24-60 hours

Distribution of institutions/hours taught (in 10 hour bands)

Hours taught (total)	20-29	30-39	40-49	50-59	60-69
No. of inst'ns	1	5	4	1	1

Spread of input throughout the course (5)

1st year input only: 1 institution
1st and 2nd years: 8 institutions
1st, 2nd and 3rd years: 3 institutions

Although the majority of courses have no specified practical phonetics input after 2nd year, comments support the desirability of ensuring that practical phonetics skills are maintained and applied to clinical data throughout the period of undergraduate education.

Proportion of time devoted to segmental vs. non-segmental aspects of speech (8)

All institutions focused predominantly on segmental analysis of speech. Analysis and/or performance of non-segmental aspects of speech, such as voice quality and intonation, constituted no more than 15-25% of any course. Comments give some indication that several courses are placing increasing emphasis on analysis of non-segmental features, but that there is a lack of confidence in the teaching and essessment of these aspects.

Proportion of time devoted to normal vs. disordered speech (7)

Most courses assigned more time to analysis of normal speech than to disordered speech patterns. The only courses to include any input on disordered speech during the first year were two courses which had no practical phonetics input after the first year. Where practical phonetics teaching continued beyond second year there was a general tendency for the proportion of time assigned to disordered speech analysis to increase progressively in 2nd and 3rd years. Overall, the proportion of time devoted to disordered speech analysis appears

to vary between 25% and 50%.

Class size and course delivery (10)

Class size for practical phonetics varies considerably, but all institutions aim to teach at least some of practical phonetics in small groups. Minimum class size for most courses varies between 8 and 20, but one course has a minimum class size of 30 for 2nd. year practical phonetics input. 5 courses had no first year teaching of practical phonetics in groups of fewer than 20 students.

Many responses included comment that current class sizes are too large, and that smaller group teaching in this area would be more effective. Teaching in most institutions is largely based on traditional phonetics teaching methods; students perceptual skills are developed initially through exposure to phonetic sequences produced in a controlled manner by teaching staff, and phonetic performance by students is developed through careful monitoring and feedback from staff. Comments suggest that a maximum group size of 8-10 students is appropriate for this type of work on perceptual analysis and phonetic performance.

Recorded speech material of various sorts is used in all institutions to further develop perceptual skills, but even where very structured self-learning materials are used they do not entirely replace more traditional teaching methods.

Assessment pattern (9)

There is a varied assessment pattern across the institutions, but all seem to include some ear-training and transcription, and 6/11 specifically mention a phonetic performance component.

Essential and desirable Practical Phonetics skills for SLT qualification (11)

The responses to this question are difficult to summarise succinctly, but did suggest that there are some areas of disagreement. Some responses indicated that the ability to make accurate transcriptions is the key essential skill, whereas three responses indicated that whilst this is desirable, it is subordinate to the ability to make competent phonetic interpretations of speech, at a segmental and suprasegmental level.
7 responses specifically mentioned the ability to perform a wide range of unfamiliar phonetic segments or features as an essential or desirable skill.

Three examples illustrate the diversity of emphasis:

Essential skills	Desirable skills
1. An ability to provide a phonetic interpretation of any sound, segmentally and suprasegmentally. An 'objective' mode of listening	The ability to make confident transcriptions , including the use of extIPA symbols

Essential skills	Desirable skills
2. Analytical listening skills along phonetic dimensions. Competence in broad transcription of normal English, including prosody. Familiarity with a range of non-English sounds.	An appreciation of the limitations of segmental transcription of abnormal speech . Competence/confidence in prosodic analysis.
3. Accurate and detailed impressionistic phonetic transcription of segmental and suprasegmental aspects of normal and disordered speech.	Accurate production skills

Evaluation of success in developing students' Practical Phonetics skills (12)

The question "Are you confident that most students meet these requirements" (relating to the previous question) was included because informal discussion with colleagues had suggested a high level of anxiety about whether SLT students were developing adequate Practical Phonetics skills for clinical practice.

Of institutions responding to this question;
4 courses responded positively, suggesting that most students acquire adequate skill levels *;
2 responded negatively;
3 felt that they were partially successful (e.g."yes, except intonation", "in part").

* One comment deserves inclusion, as it was echoed by several phonetics teachers in later discussions: "At the moment of examination, yes. After an additional 6 months I have my doubts". There is some concern about maintenance of phonetic skills where phonetics teaching input ceases after the first one or two years of an undergraduate course, and some comments stress the desirability of continuing some practical phonetics in later years of courses (see 2.2: Spread of input, above).

2.3 Instrumental and acoustic phonetics

Contact hours (13)

The amount of time devoted to this area of phonetics seems to correlate quite strongly with the resources and staff expertise available in different departments. This is probably the area of phonetics which relies most heavily on physical resources (i.e. availabiliy of instrumentation for analysis of speech), and suffers in several institutions from underfunding.

The range of compulsory hours taught is from 13 - 80, and departments with particular strengths in this area offer a significant number of additional optional hours in the form of

final year options or research projects.

Distribution of institutions/compulsory hours taught (in 10 hour bands)

No. of hours	**10-19**	**20-29**	**30-39**	**40-49**	**50-59**		**80**
Inst'ns	5	3	1	1	1		**1**

Spread of input throughout the course

The timing of delivery shows considerable variation, as follows:-

	No. of institutions
1st year input only:	1
1st + 2nd year:	1
1st + 2nd + 3rd years:	4
2nd year only:	1
2nd + 3rd years:	2
2nd + 4th years:	1
3rd year only:	1

Group size (15)

Most institutions teach at least part of this strand of phonetics in small groups, as class size for laboratory work is limited by access to equipment. Minimum group size ranges from 5 or 6 to 18. These sessions are usually supported by lecture style teaching to whole-year-groups of up to 50 students.

Assessment pattern (16)

Assessment patterns vary from a single short-answer exam to multiple assessments including laboratory reports, essays and problem-solving exercises.

2.4 General phonetic theory

Contact hours (17, 18)

Whilst some courses have separate modules or classes for general phonetic theory, others teach this in an integrated fashion with practical phonetics, or phonology. The hours given are thus not really comparable across institutions.

The range of hours taught is 25 - 78

Group size (20)

This seems to be taught most often in large, whole year groups of more than 20. General

theoretical aspects of phonetics seem to lend themselves more to lecture style teaching than any other aspect of phonetics.

Assessment pattern (21)

Assessment is generally by written examinations and/or essays, with one institution having a viva examination in addition.

2.5 Key texts used

A wide range of texts are used, but the most commonly used are:

Ladefoged, P. (1993) A Course in Phonetics. (3rd Edition) Harcourt Brace College Publishers (8 institutions)

Clarke, J. and Yallop, C. (1995) An Introduction to Phonetics and Phonology (2nd Edition) Blackwell, Oxford (6 institutions)

Cruttenden, A. and Gimson, A.C. (1994) Gimson's Pronunciation of English (5th Edition) Edward Arnold, London (5 institutions)

Ball, M. J. (1993) Phonetics for Speech Pathology Whurr, London (5 institutions)

Laver, J. (1994) Principles of Phonetics Cambridge University Press (4 institutions)

2.6 General comments

Apart from some lengthy discussion about necessary practical phonetics skills (see section 2.2) the most common subjects of comment concern the need to improve integration between phonetics, other aspects of linguistics and speech pathology and problems of resourcing. Some departments feel that they are very under-resourced in terms of both teaching expertise and laboratory equipment, and the results of the survey tend to support this view.

Comments also suggest that there is a desire for discussion and collaboration between teaching institutions, clinicians and the Royal College of Speech and Language Therapists in order that appropriate and effective phonetics teaching for SLT students can be encouraged and assessed in a way which reflects professional demands.