

COLLABORATIVE LEARNING IN HEALTH UNDERGRADUATES

Fátima Silva

Mestre Assistente

Faculdade de Ciências Humanas e Sociais – UFP

fsilva@ufp.pt

Collaborative learning in an ESP (English for Specific Purposes) undergraduate health setting, implies providing opportunities that allow the personal construction of knowledge. The teacher has to set appropriate contexts and objectives for the task and facilitate collaboration in the dyads or groups so that learners can reach their ZPD with peer collaboration. In a foreign language classroom, it is through task-related talking that learners can scaffold each other to complete the written task.

1. INTRODUCTION

Collaboration, especially in dyads, has long been a feature of the foreign language classroom and is a central feature of current TEFL (Teaching English as a Foreign Language) methodology and course books as it is assumed that it gives learners greater opportunity to practise the target language (Harmer, 1983, p. 62). This paper aims to answer the following questions: What actually happens in collaborative learning? Are there other issues that a TEFL teacher should consider in order to improve the process? To try to answer some of these questions, the use of collaborative learning in health undergraduates was considered.

Collaborative learning considers social interaction as of utmost importance in educational settings. The construction and development of learning results from the learner's interaction with the environment and social mediation (Vygotsky, 1979). Peer collaboration can be as useful as vertical interaction (Mercer, 2000) not only with children but also in higher education and in distance education settings. Learners working as dyads or in groups may have the opportunity for reflection on the language through dialogue in which they can 'scaffold' each other to reach a new level of development. The potential for cognitive development occurs in the 'zone of proximal development' (ZPD) and depends upon social interaction, requiring the collaboration of others in order to extend meaning and knowledge.

2. COLLABORATIVE LEARNING

A major theme of Vygotsky's theoretical framework is the fundamental role of social interaction and culture in the development of cognition: humans learn and develop within the context of their particular culture, including the family and school social environments into which they are immersed. Vygotsky argued that their cultural development teaches children not only how to think, but what to think. This notion of social cognition is linked to the dialectical process through which children learn how to solve problems, communicate in verbal and non-verbal modes and represent themselves to the world. The potential for cognitive development occurs in the ZPD, which is defined as:

The potential for cognitive development occurs in the ZPD, which is defined as: the distance between the actual development level as determined through individual problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1979, p. 86)

This assisted performance, as Tharp and Gallimore (1998) have termed it, depends upon social interaction, requiring the collaboration of the teacher and learners in order to extend meaning and knowledge. The ZPD has been extensively developed and resulted in the concept of scaffolding (Bruner, 1994) in which a learner is assisted to accomplish a task beyond his or her capability. This implies that learners can solve a certain range of problems only when they are interacting with others, whether adults or peers. Once the problem-solving activities have been internalised, the problems initially solved under guidance and in co-operation with others, in the ZPD, will be tackled independently. Thus, adults or more able peers assume an important role in the social learning context from an early stage.

Thus, peer collaboration can be as useful as vertical interaction (Mercer, 2000). Learners working as dyads or in groups may have the opportunity for reflection on the language through dialogue in which learners can 'scaffold' each other to reach a new level of development. The potential for cognitive development occurs in the ZPD and depends upon social interaction, requiring the collaboration of others in order to extend meaning and knowledge.

Collaborative learning is a symmetrical interaction as 'peers are more or less at the same level, can perform the same actions, have a common goal and work together' (Dillenbourg, 1999, p. 7). In the case of the health undergraduates, there may be asymmetry of knowledge because all the learners may not have a similar level of competence in the target language. Cohen (1994) states that in order to obtain significant results learners with a lower level of knowledge benefit from being in a heterogeneous group instead of a homogeneous group of learners of low-achievers. However, the difference of level between low and high competence learners should not be considerable as the learners with lower target language competence may become passive and embarrassed if they are collaborating with more competent learners who dominate the other members of the group.

Collaborative learning is often confused with 'co-operation'. Although they may at times overlap, there are differences. According to Dillenbourg (1999, p. 8), co-operation means the 'partners split the work, solve sub-tasks individually and then assemble the partial results into the final output', that is, there is a vertical division of labour. Collaboration implies partners doing the work 'together', through horizontal division of labour. Consequently, at times, partners may adopt roles (co-operation) but are still working 'together' (collaboration) on the same task. In addition, while in co-operation the splitting of tasks is set at the beginning of the interaction and stays constant throughout the interaction, in collaboration roles may change. For instance, in an undergraduate health lesson in which task-related speaking and writing activities are set, in collaboration, the learners could take turns at speaking and writing. However, in co-operation, the same learners would set tasks, for example: 'You write what we decide' which implies that this learner will not par-

ticipate in the discussion, only in the writing task. In EFL classrooms, this task is usually given to the most fluent learner.

When teachers implement collaborative learning, and in order to avoid this drawback, the task has to be clearly identified before beginning a collaborative learning activity. This ensures reliability and effectiveness of collaborative learning. The second step involves an explanation of the learning task: the objective of the task, the fact that everyone must have the opportunity to speak, how to listen to comments and opinions, and reaching a solution to the task. In many EFL settings this task usually involves speaking and writing, that is, they discuss the task and finally have to present a written solution.

Collaborative learning should involve interdependence of the task as learners try to teach each other and, at the same time, learn from each other. Collaborative learning is thus the process of *reflection support* (Richmond, 1994) for each other's learning and relative *independence*, from the teacher in the learning process. In this process, the teacher should provide non-intrusive intervention so that the learning process is a reciprocal experience for the learners and the teacher.

In TEFL, collaborative learning, especially in dyads, allows the learners to practise their target language as 'the more language learners are exposed to or produce, the more they are likely to learn' (Harmer, 1983, p. 62). As pair-work is seen as beneficial, many TEFL textbooks incorporate communicative activities allowing learners to 'actively explore ideas and create meanings through talk with other people' (MacLure, 1994, p. 146). However, some pair-work activities do not constitute an active exploration, but a mechanical repetition of words given by the teacher.

Harmer (1983) claims that this repetition benefits learning as language is reinforced in a behaviourist sense, although this approach does not allow for originality in language (Bruner, 1994). The conscious learning of grammar is also seen as beneficial, following Chomsky's assertion that language is 'an intricate rule based system' (Harmer, 1983, p. 30), but it does not consider the social contexts for language learning, use and meaning. The meaning of each word is based on the analysis of its cultural and social function. Thus, Vygotsky (1979) states 'social processes shape word meanings, thoughts, needs and desires'.

Language is to do with forms, but also with the way that speakers behave to each other in different contexts. The foreign language classroom is the social context from which meanings in the foreign language must be gathered, and in which the teacher has the knowledge and the power. This asymmetry with the teacher can lead to learners 'finding out what the teacher expects to hear' (Fisher, 1994, p. 157), rather than deepening their unders-

tanding of the word with reference to its function in the culture, which would constitute 'principled knowledge'.

Richmond (1994, pp. 278, 281) adds that it is a myth that rules or definitions lead to competence in language and describes language competence as learners' 'implicit know-ledge put to work', which the teacher helps to develop by 'providing a classroom environment which supports and affirms the child's achievement'.

This may be helped by pair-work as the subject positioning of learners in relation to each other may have different consequences in terms of power and domination than their positioning in relation to the teacher (Fairclough, 1989). Teacher discourse has distinguishing features (Fisher, 1994): teachers ask questions, learners do not, and control the class through feedback, elicits, reformulations, reconstructions and repetition. In a foreign language classroom, this may in turn lead to an imposition of the teacher's cultural framework on the learners (MacLure, 1994, p. 144). However, collaborative learning in dyads could give learners the opportunity for reflection on the language through dialogue (Richmond, 1994, pp. 284-7).

Mayor (1994, p. 74) says that 'the languages of a bilingual speaker often come to symbolise different areas of human experience, different cultural values'. However, in learning a second language, learners may use their own cultural frames of reference and literacy practices with which to make sense of the new language; thus pair-work and writing can offer the opportunity to 'populate the language with their own intentions', but as these have partly been created in the environment of another language and culture, their ability to say what they intend is limited by the vocabulary they already know. This could be regarded as their zone of actual development, whereas their ZPD is what, with assistance, they can do with the new language, either with the help of peers or teacher (Mercer, 1994).

According to Harmer (1983), writing in a foreign language classroom aims to reinforce taught lexico-syntactic structures and communication while the teacher presents new language and organises opportunities for its practice. In higher education, writing and oracy are seen as objectives and skills to be learnt and assessed. Thus, pair work provides learners with opportunities for communication, while writing is seen as a more individual enterprise in which a learner's knowledge is displayed and tested more objectively. However, learning is never individual, but always a function of cultural and social forces (Mercer, 1994; Fairclough, 1989; Vygotsky, 1979). EFL course books present the aims of writing as the use of appropriate register and style according to the target reader.

Czerniewska (1992, p. 123) argues that school tasks cannot be isolated from the constraints imposed by the outside world. Thus, no writing is free, but once again depends on the lear-

ner's resources, which in turn are derived from the larger social forces at work outside (and within) the classroom.

In putting spoken language into writing, learners must understand the difference between these modes: for Chafe (in Czerniewska 1992, p. 23), spoken and written language have 'different kinds of complexity'; writing is 'more integrated and syntactically complex', more detached and context independent when compared with the more fragmentary spoken language, lacking the normal cues that appear in dialogue. Additionally, Hassan (1994) says writing has a different type of cohesion from speech because of the absence of cues, gestures and a phonological system. Arguably, written language is more meaning orientated than socially orientated, though this depends on the nature of the written text.

3. COLLABORATION IN ESP

Writing activities for ESL health undergraduates aim to increase their competence not only in the target language but also in their area of study, with a different register and level of difficulty. Thus, the tasks set are often based on texts which reflect these objectives. These learners already have an understanding of written texts – both formal and informal – from their previous social and educational experience, and from their first language, Portuguese. In addition, they are being confronted, in the other disciplines of their degree, with English textbooks and articles. Consequently, competence in English is essential.

Since learners have 'multiple identities', they bring into the classroom 'their own experience of learning and of life ... and their own particular needs that they hope to see satisfied' (Allwright and Bailey, 1994, p. 18), in addition to their own cultural knowledge with which to make sense of the new language. However, in the case of these health undergraduates, these have partly been created in the environment of another language and culture, their ability to say what they intend is limited by their existing competence in the target language and they must be helped by peers or the teacher to reach a higher level of competence (Silva, 2004).

Learners, thus, scaffold within the context of their ongoing relationships with each other, and their subject positions. As the learners in the ESP health settings had a similar cultural background, their shared frame of reference could facilitate their mutual scaffolding. This is not to say their frames of reference are identical, as individuals have their own 'members' resources' (Fairclough, 1988) depending on their particular experiences.

A major drawback in setting collaborative task-related talking and writing activities at this level is the widely disparate abilities that can exist in one single class of 30 or more learners.

Portuguese learners may reach university with three, five, seven or eight years of English at school, depending on whether it was their first or second foreign language, whether they specialised in it in their final year at school or even have First Certificate, Advanced or Proficiency Certificates (Silva, 2004). Consequently, during collaborative learning, the teacher will have to ensure that less fluent learners are not always placed together as this will necessarily mean that they are not reaching their ZPD. In these situations, learners tend to switch to their mother tongue because they are able to express themselves more openly. Here, the teacher's role is of utmost importance to ensure that the target language is being used.

However, any unequal relationship in a dyad results in the ideas of the most fluent learner – or at least the most talkative – being taken up without arguments. The number of turns each learner speaks reflects this inequality: in a homogeneous dyad of fluent speakers the number of turns is similar, the same happens with lower achievers (although using more Portuguese than English); in a heterogeneous dyad, the fluent speaker will almost always dominate the task. Thus, the teacher's task before any collaborative learning process is to ensure symmetry in the dyads, or at least that each dyad consists of a learner who can guide reluctant and weaker learners to participate in the task. In practice this can only happen once the teacher knows the group of learners relatively well, which is difficult in large groups.

Collaboration in dyads to achieve the written task results in both learners contributing imaginative ideas for the text, vocabulary, and occasionally the nature of the task, genre and grammatical structure of the target language, which allows them to produce a written text containing traces of different voices and reflecting each learner's world and language knowledge.

The nature of the task in which the writing is directed by the teacher, and ultimately for the teacher, results in the learners' sense of control and responsibility for their work being directed to this end. As Czerniewska (1992, p. 102) states 'to be worthwhile, a piece of writing has to be seen ... as relevant to (the children's) lives.' As the learners consider the tasks appropriate for their future careers, it was thought to be a worthwhile process. It would be interesting to see how they approached the task if it involved writing for peers, and not for the teacher, working within the constraints of the curriculum and target language to be taught.

Learning and teaching in the ZPD is, thus, dependent on social interaction and, in educational settings, this most typically involves face-to-face interaction mediated by speech. Tharp and Gallimore (1998, p. 36) define teaching as occurring 'when assistance is offered at points in the ZPD at which performance requires assistance'. However, research has revealed difficulties in the use of collaborative teaching and learning due to the large number of learners in each classroom, which does not allow close contact with each learner, and also because learners are often unsure of their role in this type of work.

This paper has explored the importance of collaborative learning in any educational setting, including an ESP undergraduate classroom, and, in our experience, the type of support the learners give each other is not untypical of what frequently happens. To maximise learners' benefit from collaborative learning activities, the teacher has to facilitate awareness of exploratory discourse strategies and writing practice should stretch the learners' abilities and be relevant to their lives.

REFERENCES

- Allwright, D. and Bailey, K. M. (1994). *Focus on the Language Classroom*. Cambridge, Cambridge University Press.
- Bruner, J. (1994). From Communication to Talking. In: Stierer, B. and Maybin, J. (eds) *Language, Literacy and Learning in Educational Practice*. Clevedon, Multilingual Matters Ltd, pp. 50-68.
- Cohen, E.G. (1994). Restructuring the Classroom: Conditions for Productive Small Groups. *Review of Educational Research*, 64(1), pp. 1-35.
- Czerniewska, P.(1992) *Learning about Writing*. Oxford, Blackwell.
- Dillenbourg, P. (1999). What do you mean by collaborative learning? In: P. Dillenbourg (ed.), *Collaborative-learning: Cognitive and Computational Approaches*. Oxford, Elsevier, pp. 1-19.
- Fairclough, N. (1989). *Language and Power*. London, Longman.
- Fisher, E. (1994). Distinctive Features of Pupil-Pupil Classroom Talk and Their Relationship to Learning: How Discursive Exploration Might be Encouraged. In: Stierer, B. and Maybin, J. (eds) *Language, Literacy and Learning in Educational Practice*. Clevedon, Multilingual Matters Ltd, pp. 150-169.
- Harmer, J. (1983). *The Practice of English Language Teaching*, London, Longman.
- Hassan, R. (1994). The Texture of a Text. In: Graddol, D. and Boyd-Barrett, O. (eds) *Media Texts: Authors and Readers*. Clevedon, Multilingual Matters Ltd, pp. 35-67.
- MacLure, M. (1994). Talking in Class: Four Rationales for the Rise of Oracy in the UK. In: Stierer, B. and Maybin, J. (eds) *Language, Literacy and Learning in Educational Practice*. Clevedon, Multilingual Matters Ltd, pp 135-149.

Mayor, B.M. (1994). 'What Does It Mean To Be Bilingual?'. In: Stierer, B. and Maybin, J. (eds) *Language, Literacy and Learning in Educational Practice*. Clevedon, Multilingual Matters Ltd, pp. 69-83.

Mercer, N. (2000). *The Guided Construction of Knowledge*. 3rd Edition. Clevedon, Multilingual Matters.

Mercer, N. (1994). Neo-Vygotskian Theory and Classroom Education. In: Stierer, B. and Maybin, J. (eds) *Language, Literacy and Learning in Educational Practice*. Clevedon, Multilingual Matters Ltd, pp. 82-113.

Richmond, J. (1994). What Do We Mean by Knowledge About Language. In: Stierer, B. and Maybin, J. (eds) *Language, Literacy and Learning in Educational Practice*. Clevedon, Multilingual Matters Ltd, pp. 270-289.

Silva, F. (2004). ESP for Learners in the Health Sciences Field. In: *Revista da Faculdade de Ciências Humanas e Sociais*, Nº 1. Porto, Universidade Fernando Pessoa, pp. 35-41.

Tharp, R. and Gallimore, R. (1998). A theory of teaching as assisted performance. In: Faulkner, D., Littleton, K. and Woodhead, M. (eds) *Learning Relationships in the Classroom*. London, Routledge, pp. 34-51.

Vygotsky, L. S. (1979). Vygotsky's theory: zone of proximal development – A new approach. In: Scribner, S. and Souberman, E. (eds) *Mind in Society*. Harvard University Press.