

2 The Literature Review

Let's begin by considering *whether you need a literature review at all*. Assuming you do, we then look at what it should contain and how it can be organised, and at alternative styles of citation.

Do you need a literature review chapter?

Harry Wolcott took a radical view of the literature review in qualitative research:

“I expect my students to know the relevant literature, but I do not want them to lump (dump?) it all into a chapter that remains unconnected to the rest of the study. I want them to draw upon the literature selectively and appropriately as needed in the telling of their story... Ordinarily this calls for introducing related research toward the end of the study rather than at the beginning, except for the necessary ‘nesting’ of the problem in the introduction”.

(Wolcott 1990: 17, underlining added)

Silverman (2000: 231) quotes those words of Wolcott's, but then says that the idea of not having a literature review chapter at all may be “too radical for most students (and their supervisors!)”. He goes on to add:

“Nevertheless, even if you decide to write the conventional literature review chapter, what [Wolcott] has to say is a salutary reminder that, in writing a qualitative research dissertation, you should cite other literature only in order to connect your narrow research topic to the directly relevant concerns of the broader research community. Making wider links should properly be left to your final chapter”.

Task 2.1

Do you agree with the last sentence in that quotation from Silverman?

Are you planning to have a single Literature Review chapter or more than one?

Have you talked to your supervisors about what proportion of your thesis should be devoted to the Literature Review?

Principles

The review should be “written from a particular standpoint, to fulfil certain aims or express certain views on the nature of the research topic and how it is to be investigated, and the effective evaluation of documents in relation to the research being proposed” (Hart 1998: 13). To achieve that, Silverman advocates what he called the **four principles of literature review**:

- Show respect for the literature
- Be focused and critical
- Avoid mere description
- Write up the review after your other chapters

Review Principle 1: Show respect for the literature

Even though you are pursuing a narrow research topic, you should not show disrespect for previous research or disconnect what you are doing from the wider debate in the field. “Even producers of literature must know the literature, and a major criterion for evaluating work is whether or not it is put in a context of prior scholarship” (Marx 1997: 106).

Review Principle 2: Be focused and critical

Respect can only get you so far; you need to show a critical perspective on what you have read. “Approach the literature with questions and remember that your goal is to advance it, not simply to marvel at its wonders” (Marx 1997: 106).

Review principle 3: Avoid mere description

Silverman (2000: 229) says that every supervisor “has horror stories of literature reviews which were tediously and irrelevantly descriptive”, rather than analytical and critical.

Rudestam and Newton characterise this sort of review as “a laundry list of previous studies, with sentences or paragraphs beginning with the words ‘Smith found...’, ‘Jones concluded...’, ‘Anderson stated...’ and so on” (1992: 46, underlining added).

They go on to say that the background literature can be described briefly, even in a single sentence, but that the most relevant studies “need to be critiqued rather than reported” (Rudestam and Newton 1992: 49).

Review Principle 4: Write up after your other chapters

Silverman suggests writing the literature review after you have done the other chapters. Isn’t that rather an odd suggestion? Surely most students aim to complete their literature review before ‘starting their research’, don’t they?

Two possible disadvantages of writing your literature review *too early* are:

- Until you have completed the analysis of your data, you may not know which parts of the literature are relevant to discussing your findings
- You may be tempted to think of the literature review as relatively easy

Task 2.2

Can you think of any other potential problems that might arise if you start writing your literature review *too early*?

Content and organisation

The literature review should provide your readers with answers to the following questions:

- What do we already know about the topic?
- What do you have to say *critically* about what is already known?
- Has anyone else done anything similar or related to what you propose?
- Where does your work fit in with what has gone before?
- Why is your research worth doing, in the light of what has already been done?

Task 2.3 - What can go wrong in a literature review?

Below are supervisors' criticisms of four students' reviews. Read them carefully and then reflect on these questions:

Did your supervisors make criticisms like those of the literature review drafts you wrote during your first year of research? (Did they make any *other* criticisms?)

Could any of the comments A-D apply to your current literature review?

- A. "Your draft review is basically little more than a list of previous research papers in the field. While it is clearly well researched, it doesn't give me a sense of what has been more significant and less significant. It is hard to know where you stand".
- B. "You have given a chronological account, which might be fine for an introductory textbook but doesn't work well as a preface to your own research. Although I know what your research hypothesis is, I don't see it informing your review of the previous literature. Somehow we need to see the relevant themes and issues more clearly".
- C. "The first part of your review deals with theory, often invoking big names from the past. The second half deals with practice – contemporary empirical findings. At the moment I don't see a coherent relationship between the two".
- D. "In general, you haven't shown clearly enough what literature is relevant, and how, to your particular research topic.... You need to prune this material drastically and to increase the space devoted to your own critical understanding of the issues, discussed in relation to what you are setting out to show.... Your line of argument and the steps that you follow in pursuing that line need to be made much clearer; you need to impose a much more transparent structure on your discussion".

(Examples A-C have been adapted from Feak & Swales, 2009: 10-11);
Example D from Lynch & Anderson, 2012: 33)

The literature review needs to be organised so it leads your readers naturally and coherently to your research objectives. The review might be in one long single chapter; it might be spread over several shorter ones. Have another look at two of the thesis outlines from Unit 1:

Abstract

1. INTRODUCTION AND RATIONALE
2. LITERATURE REVIEW
3. METHODOLOGY
4. FINDINGS 1: WHAT IMPACT DOES THIS COURSE HAVE?
5. FINDINGS 2: PRE-COURSE FACTORS AND IMPACT
6. FINDINGS 3: PEOPLE AND LEARNING PROCESSES - THEIR RELEVANCE TO IMPACT
7. CONCLUSIONS AND RECOMMENDATIONS

Abstract

1. Introduction
2. Overviews of 'listening', 'strategy' and 'interaction'
3. Comprehension and interpretation in listening
4. Second language strategies
5. Conversational adjustments
6. The teachability of strategies
7. Task design for spoken interaction
8. Interactional listening strategies: a study
9. Results and discussion: two analyses
10. Conclusions

Task 2.4

What is different about the position and organisation of the literature review in those two theses?

Which of the two literature reviews is structured more like the one you are planning for your thesis?

Within the literature review, it may be appropriate to use an organising principle such as **general-to-specific**, **chronological** (narrating the development of research or debate), **problem-solution** (evaluating alternative solutions to a problem), or **contrasting theories or procedures, etc.** (describing and evaluating alternatives).

Although the overall organisation of your review chapter(s) may be thematic, it may be appropriate to use some of those patterns above for different parts of your review. You may also choose to combine aspects of more than one pattern- for example, a discussion of *alternative theories or procedures* may have a historical (*chronological*) dimension; it might also be seen as a chain of *solutions* (based on previous theories or procedures) to the *problem*.

Citation styles

Your major decisions in *planning* your literature review are therefore what to include from previous research and where / in which order to mention it. When it comes to *writing up* the final draft of your review, you also have to decide how to include your citations – whether to quote directly from your source or whether to summarise (or paraphrase). You also need to decide which related studies you should discuss as a group, and which studies you should discuss alone.

There are two basic styles of citation:

1. **Integral citations** tend to focus the readers' attention more on the researcher and rather less on the research. For that reason they are also known as **author prominent** citations.

Cutrone (2005) found that the tendency of Japanese learners of English to avoid confrontation, by providing regular positive backchannelling, caused frustration in their native English conversational partners, who were unable to decide whether or not their message was really being understood.

Read's (2002) study compared one-way, scripted and two-way, unscripted versions of an EAP listening test.

Miller (2002) examined lectures from an ethnographic or generic perspective, but did not empirically assess how the discourse features so far identified might impact on listener's comprehension.

2. Conversely, **non-integral citations** focus attention more on the research and less on the individual researchers involved. They are also known as **research prominent** or **information prominent** citations.

The role of students' note-taking in helping to make lecture content 'memorable' has long been a focus of applied linguistic research (e.g. Dunkel & Davy, 1989; Chaudron, Loschky & Cook, 1994).

When the requirement to understand is combined with the need to produce, as it is in university tutorials and discussions, the international students' feelings of inadequacy and frustration are exacerbated (e.g. Leki, 2001; Liu, 2001; Morita, 2004).

Task 2.5

Study the review extract below and look for answers to these questions:

1. Which did the student use more - **author prominent** or **research prominent** citation?
2. Which did she use more - **direct quotation** or **summary**?

(Some expressions have been highlighted in bold. We will come back to them later)

Collaborative learning: The socio-cultural perspective

As we saw in Chapters 2 and 3, metacognitive and cognitive strategies can promote foreign language reading performance, and text simplification is likely to produce more accessible texts for foreign language readers. In this chapter, **I will extend my review of** the theoretical framework underlying the design of my learning and teaching tasks, which are intended to encourage learners' foreign language development.

Introduction

Research on collaborative interaction in language learning classrooms **has drawn on** Vygotsky's (1978) notions of the *zone of proximal development*, *scaffolding*, and *private speech*, which **are claimed to** play an important role in facilitating foreign language learners' language learning processes (de Guerrero & Villamil, 1994; 2000; Ewald, 2005; Lantolf, 2000; Lantolf & Thorne, 2006; Ohta, 1995; 2001; Oxford, 1997). **According to** Oxford (1997), collaborative learning, which has a strong connection with socio-cultural theory, centres on the notion that an individual's knowledge comes from communication with others.

The term collaborative learning used in this study conveys a distinct meaning from the term *cooperative learning*. That is, **following Oxford** (1997), cooperative learning **tends to be** more structured and is intended to enhance learners' cognitive, communicative as well as social skills in the target language, whereas collaborative learning **appears to be** less structured and attempts to engage learners through social interactions into knowledge communities. Oxford (1997) **defines** collaborative learning, which is relevant to the context of the study—in which students of mixed ability discuss the meaning of foreign language texts in small group activity—**as:**

“Collaborative learning is a reacculturative process that helps students become members of the knowledge communities whose common property is different from the common property of knowledge communities they already belong to” (p.444).

Donato (2004) **emphasises** that collaborative work involves “a meaningful core activity and the social relations that develop as a result of jointly constructed goals for the common endeavour” (p.286). Collaboration, **in Donato's view**, also refers to the acceptance of members' contributions to the activity and the establishment of intersubjectivity within groups. **This notion is intended to distinguish collaboration from** the commonly-used term *interaction*, or what he calls “*loosely knit configurations of individuals*” (Donato, 2004, p.298).

In the next three sections, I will discuss three interrelated areas grounded on Vygotsky's theory—‘*the zone of proximal development*’, ‘*scaffolding*’, and ‘*private speech*’—followed by studies on collaborative interactions in foreign language learning contexts.

Zone of proximal development

The zone of proximal development (ZPD) is the metaphor **Vygotsky (1978) proposed** as a way to explain the process of an individual's internalisation of knowledge and skills through social forms of mediation. More specifically, **the ZPD refers to** the distance between one's actual development achieved by oneself and one's potential future development through the assistance of the expert or more skillful peers (Cole, 1985; Lantolf, 2000; Lantolf & Thorne, 2006; Leontiev, 1987; Rogoff, 1995; van Lier, 1996). Vygotsky (1978) **characterised** the notion of the ZPD as follows:

“An essential feature of learning is that it creates the zone of proximal development; that is, learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers. Once these processes are internalized, they become part of the child's independent developmental achievement” (p.90).

Again, Vygotsky referred to the actual development level, already established in the child's mental functions, and the level of potential development, which **is built up** by guided support from more capable individuals through problem solving activity (Lantolf & Thorne, 2006, p.266). The assistance from others eventually **becomes** one's self-regulation; in other words, through the support from others, an individual or learner **can** over an extended period **move** from other-regulation to self-regulation

(Ohta, 2001). **This process** of gradually moving from depending on others' guidance to becoming more independent in manipulating one's own language use and mental activity **is called** 'internalisation' (Donato, 1994; Wertsch, 1985). **Vygotsky's notion** of how knowledge is internalised **is regarded as 'outside-in'**, because once interaction or relationships with others are established, knowledge **can then be** internalised, constituting the process of cognitive development.

For Vygotsky, these processes of internalisation **entail two crucial stages** of developmental learning: (1) the stage related to the social level and (2) the one related to the individual level. The social level **primarily involves** interactions between individuals, whereas the latter **concerns** the inner part of the individual. Vygotsky (1978, p.57) proposed that:

"Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological), and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relations between human individuals".

Wertsch and Stone (1985) **emphasised the importance of** Vygotskian developmental theory in the educational context **and argued that** all developmental processes occurred from social processes and then internal functioning. **They summarised their views** on the internalisation processes as follows:

"We will argue, however, that the Vygotskian formulation involves two unique premises. First, for Vygotsky, internalisation is primarily concerned with social processes. Second, Vygotsky's account is based largely on an analysis of the semiotic mechanism, especially language, that mediates social and individual functioning. Thus, internalisation is viewed as part of a larger picture concerned with how consciousness emerges out of human social life. The overall developmental scheme begins with external social activity and ends with internal individual activity" (Wertsch and Stone, 1985, p. 164).

We therefore need to take into consideration both the external (social) and the internal (individual) when it comes to the basic idea of internalisation, or individual development through social interaction (Donato, 1994; Oxford, 1997; Wertsch & Stone, 1985).

The concept of the ZPD and internalisation **has played a key role in** both psychology and pedagogies, including foreign language instruction. In order to integrate the notion of the ZPD into foreign language pedagogy, van Lier (1996) **argues** that the teacher needs to be advised to ensure that all kinds of teaching take place in the ZPD through pedagogical scaffolding. Likewise, Ellis (2003, p.180) **views the ZPD as the crucial construct** in language learning, because it **provides an insight into** why learners do not succeed in acquiring and using some foreign language structures, despite external forms of mediation; why they are able to use some structures with the support from others, but not independently; and how learners' internalisation process occurs.

In the next sections I turn first to the specific role of *scaffolding* within Vygotsky's socio-cultural view of foreign language instruction and then to the notion of *private speech*.

Task 2.6

Apart from citations using a verb, you can use a number of citing phrases, such as According to + author's name. They tend to occur at the start of a sentence.

Look again at the *Collaborative Learning* extract and see how many you can find.

Tense choice in citation verbs

Feak & Swales (2009: 51-52) offer what they call *general guidelines* for tense usage in the literature review. But they make the point that a writer's choice of tense is subtle and flexible; tense choice is not a question of grammatical rules but of appropriacy to academic norms – and to nuances of meaning.

I. **Past Simple tense:** for reference to a single study (often an integral citation of researcher activity, but also to research findings)

Arslan (2007) **investigated** the performance characteristics of biodiesel as an engine fuel.

The performance characteristics of biodiesel as an engine fuel **were investigated** by Arslan (2007).

Biodiesel **was shown** to have strong performance characteristics as an engine fuel (Arslan 2007).

II. **Present Perfect tense:** for reference to an Area of Research (generally non-integral citations)

The potential of biodiesel as an alternative to regular diesel **has been** widely **investigated** (Savage 2005; Pinnarat 2006; Arslan 2007).

There **have been** several investigations of the potential of biodiesel as an alternative to regular diesel (Savage 2005; Pinnarat 2006; Arslan 2007).

Many studies **have investigated** the potential of biodiesel as an alternative to regular diesel (Savage 2005; Pinnarat 2006; Arslan 2007).

III. **Present tense:** for reference to Generally Accepted Knowledge in the field

The scarcity of known petroleum reserves **makes** (*or* in this case, **is making**) renewable energy resources increasingly attractive (Savage 2005; Pinnarat 2006; Arslan 2007).

Task 2.7

The text below is an extract from the Literature Review we looked at just now. Does the student's choice of tenses fit the guidelines that Feak & Swales proposed? This time, concentrate on the verbs in **bold**.

Zone of proximal development

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“An essential feature of learning is that it creates the zone of proximal development; that is, learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers. Once these processes are internalized, they become part of the child's independent developmental achievement” (p.90).

Again, Vygotsky **referred to** the actual development level, already established in the child’s mental functions, and the level of potential development, which **is** built up by guided support from more capable individuals through problem solving activity (Lantolf & Thorne, 2006, p.266). The assistance from others eventually **becomes** one’s self-regulation; in other words, through the support from others, an individual or learner **can** over an extended period **move** from other-regulation to self-regulation (Ohta, 2001). **This process** of gradually moving from depending on others’ guidance to becoming more independent in manipulating one’s own language use and mental activity **is called** ‘*internalisation*’ (Donato, 1994; Wertsch, 1985). **Vygotsky’s notion** of how knowledge is internalised **is regarded as ‘outside-in’**, because once interaction or relationships with others are established, knowledge **can** then **be** internalised, constituting the process of cognitive development.

Choice of reporting verb

Using a variety of reporting verbs will help you to make your writing more interesting for the readers. Although there are as many as 400 reporting verbs in English (Hyland 1999), in practice a much smaller number of verbs tend to predominate. Their relative frequency of use varies from discipline to discipline, as the table below shows.

Field	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6
Marketing	<i>suggest</i>	<i>argue</i>	<i>find</i>	<i>demonstrate</i>	<i>propose</i>	<i>show</i>
Linguistics	<i>suggest</i>	<i>argue</i>	<i>show</i>	<i>explain</i>	<i>find</i>	<i>point out</i>
Psychology	<i>find</i>	<i>show</i>	<i>suggest</i>	<i>report</i>	<i>demonstrate</i>	<i>focus on</i>
Sociology	<i>argue</i>	<i>suggest</i>	<i>describe</i>	<i>note</i>	<i>analyse</i>	<i>discuss</i>
Education	<i>find</i>	<i>suggest</i>	<i>note</i>	<i>report</i>	<i>demonstrate</i>	<i>provide</i>
Philosophy	<i>say</i>	<i>suggest</i>	<i>argue</i>	<i>claim</i>	<i>point out</i>	<i>think</i>

Task 2.8

Is your field one of the six shown in the table? (If not, focus on the discipline which you think is most closely related to yours).

Does the ranking of frequency match your experience as a reader of papers in the field? If not, which verb would you have expected to be the most frequently used?

Reporting verbs: their grammar and your attitude

This section has been adapted from a text prepared for use at the University of Toronto by Martine Johnson, and revised in 2004 by Rebecca Smollett, Margaret Procter, and Jerry Plotnick. The University of Toronto offers a range of other very useful materials and advice at <http://www.writing.utoronto.ca/advice/english-as-a-second-language>

If you haven't already visited the website, I strongly recommend that you do.

There is a wide choice of reporting verbs in English and each requires one of four different grammatical patterns. Check through the Toronto lists and see whether the information matches the way you thought each verb works grammatically.

Pattern 1: Reporting verb + *that* + Subject + Verb

acknowledge	admit	agree	allege	argue	assert
assume	believe	claim	conclude	consider	decide
demonstrate	deny	determine	discover	doubt	emphasize
explain	find	hypothesize	imply	indicate	note
object	observe	point out	prove	reveal	say
show	state	suggest	think		

(a) *Da Souza* **argues** *that previous researchers have misinterpreted the data.*

(b) *Researchers* **have demonstrated** *that the procedure is harmful.*

(c) *Positivists* **find** *that social disorders are exacerbated by class factors.*

(d) *Singh* **asserts** *that both states are essential.*

Note that these verbs all differ in meaning—they cannot be used interchangeably. For example, the verb **argue** in sample sentence (a) indicates your judgement that the author's conclusion is based on evidence and reasoning, but that *other conclusions might be possible*.

On the other hand, the verb **demonstrate** in sentence (b) indicates your judgement that the researchers' evidence and reasoning are so convincing that *no other conclusion is possible*.

N.B. Some verbs in this category may also appear in a subordinate clause beginning with **As**:

(e) **As** *Da Souza* **argues**, misinterpretations by previous researchers need to be corrected.

(f) **As** *researchers* **have demonstrated**, the procedure is harmful.

This use of **As** conveys the impression that you accept the author's view, regardless of the reporting verb you choose.

Pattern 2: Reporting verb + Noun phrase

discuss express examine describe present evaluate
criticise define

- (a) *Cameron describes one such strategy.*
(b) *Clegg discusses the advantages of membership of the European Union.*

Pattern 3: Reporting verb + somebody/something + *for* + noun/-ing

blame censure condemn criticise praise thank

- (a) Smith **criticized Jones** for his **use** of incomplete data (OR for using incomplete data).
(b) Both Smith and Jones **condemn previous researchers** for **distorting** the data.
(c) Banting **thanked Bristow** for his **contribution to** the discovery of insulin.

Pattern 4: Reporting verb + somebody/something + *as* + noun/-ing/-ed/adjective

appraise assess characterize classify define
depict describe evaluate identify interpret
portray present refer (to) regard view

- (a) Jones **describes** the **findings as based on** irrefutable evidence.
(b) Smith **identified** the open **window as** the **source** of contamination.
(c) Benson and Anderson both **described** their **findings as tentative**.

Task 2.9

The fact that some of the verbs in those four lists express the attitude (critical distance, doubt, certainty) of the student/writer choosing them is obviously very important. You need to know which verbs will convey those attitudes to your readers.

As we said, if you use the verb 'argue' it suggests you think other conclusions are possible; if you choose 'demonstrate', it suggests you think no other interpretation is possible.

Which verbs in the various lists do you think work like 'argue'? Circle them.
Which ones work like 'demonstrate'? Underline them.

Writing up your thesis

You have now reached the end of the Tasks for this unit on the Literature Review. You can now apply the ideas and language from this unit to drafting or revising the relevant chapter(s) for your thesis:

Principles

- Show respect for the literature
- Be focused and critical
- Avoid mere description

Need for clear **organisation** criteria in ordering your sections

Citation styles

- Author prominent
- Research prominent
- Opening expressions (e.g. *According to*)

Tense choice

- Past
- Present Perfect
- Present

Reporting verb choice

- check grammatical structure
- take care over 'verbs with attitude'

You may also find it helpful to visit these webpages for further examples of written academic English relevant to reviewing previous research and to evaluating that work critically:

<http://www.phrasebank.manchester.ac.uk/sources.htm>

<http://www.phrasebank.manchester.ac.uk/critical.htm>

Appendix to Unit 2

Sample

Here is a longer extract (from a student's thesis draft), which may help to get you thinking about ways of developing your discussion of a key concept in your literature review.

In this section below, the student addresses the notion of 'social presence' in the context of her study of computer-mediated communication (CMC) in foreign language learning courses.

Here are some suggestions for what you could look for in her review section:

Her use of **citation style**, verb **tense** and **verb choice**.

Does the sequence of sections 2.3.1, 2.3.2 and 2.3.3 help readers to follow the case she is making? What seems to be her organising principle?

Do you think she manages to avoid excessive repetition of expressions or structures?

2.3 Social presence

In this section, I discuss the concept of social presence, its connection with computer-mediated communication (CMC), and its influence in education.

2.3.1 The concept of social presence

Social presence theory was developed by Short, Williams, and Christie (1976) at a time before CMC had been conceptualized. They defined social presence as the "degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships" (Short et al., 1976: 65). With its main focus on telephony and telephone conferencing, social presence theory was developed to explain the impacts of a communication medium on the way people communicate and interact.

According to Short et al. (1976), social presence was an attribute of a communication medium. They speculated that communication media differ in their degree of social presence, which is determined by a medium's "capacity to transmit information about facial expression, direction of looking, posture, dress and nonverbal cues" (Short et al., 1976:65). For them, some communication media are perceived by communicators as having a higher degree of social presence (e.g., video) than others.

The origin of social presence lies in two social psychology concepts: intimacy (Argyle & Dean, 1965) and immediacy (Wiener & Mehrabian, 1968). Intimacy is "a joint function of eye-contact, physical proximity, intimacy of topic, smiling, etc." (Argyle & Dean, 1965: 293). According to Argyle and Dean's (1965) intimacy equilibrium theory, changes in one dimension, e.g. increasing physical proximity, will result in compensatory changes in the other dimensions. For example, "reducing eye-contact makes greater proximity possible, and that greater proximity reduces eye-contact" (Argyle & Dean, 1965:304).

Immediacy refers to "the relationship between the speaker and the objects he communicates about, the addressee of his communication, or the communication itself" (Wiener & Mehrabian, 1968:3). It is generated by both verbal and nonverbal behaviours (Gunawardena, 1995). Two forms of immediacy are distinguished: technological immediacy and social immediacy (Tu, 2001). Technological immediacy can be achieved by transmission of the maximum amount of information; social immediacy can be conveyed by speech with its associated verbal and non verbal cues.

Short et al., (1976) hypothesized that language may replace or even overcompensate for missing nonverbal information. In their teleconference research, they noticed that reduction of cues caused participants to change their behaviour. This principle of cue substitutability, supported by Argyle and Dean's equilibrium theory, suggests that other symbol systems can be adopted by communicators in order to express affective messages in contexts where nonverbal cues are unavailable (Gunawardena, 1995), such as is the case in text-based CMC.

2.3.2. Social presence and CMC

Communication researchers started applying social presence theory to CMC in the late 1980s and early 1990s (Lowenthal, 2009). The theory has had a considerable effect on CMC research over the years, and social presence is now considered a key concept in determining the level of interaction and the effectiveness of learning in an online environment (Garrison et al., 2000; Lobry de Bruyn, 2004).

The concept has been redefined by some CMC researchers. For Gunawardena (1995), social presence is "the degree to which a person is perceived as a 'real person' in mediated communication" (p.151). Garrison et al. (2000) defined social presence as "the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e., their full personality), through the media of communication being used" (p.94). For Picciano (2002), social presence in an online course "refers to a student's sense of being in and belonging in a course and the ability to interact with other students and an instructor although physical contact is not available" (p.22). Tu and McIsaac (2002) characterised social presence as "the degree of feeling, perception, and reaction of being connected by CMC to another intellectual entity through a text-base encounter" (p.140).

Visual cues are critical to the establishment of social presence in face-to-face contexts (Garrison et al., 2000) and their absence can result in unemotional or undersocial communication (Walther & Burgoon, 1992). Hiltz (1994) noted that the lack of nonverbal cues in written CMC may limit information that serves to enhance other communicators' perception, to regulate social interaction, and to provide a social context for communication. Social presence is especially important in text-based settings, where nonverbal cues that help to establish and maintain social presence through recognition are not available (Garrison et al., 2000:100)

Tu and McIsaac (2002) examined social presence in an online learning environment, where the participants were 51 graduate level students. Their findings suggested that social contexts - such as familiarity with recipients, informal relationships, better trust relationships, personally informative relationships, positive psychological attitude towards technology and more private locations - positively influence learners' perception of social presence.

Privacy also influences the degree of social presence (Tu, 2001). The level of privacy is influenced by CMC users' perception in addition to the actual quality of security of CMC systems (Tu, 2002b). When users perceive less privacy in a setting where they access CMC, their perception of social presence decreases. (Tu, 2001). In Tu and McIsaac's (2002) study, the participants ranked e-mail as the most private system and bulletin board as the least private. One-to-one real time discussion is considered more private than many-to-many real time discussion. CMC users who have a better knowledge of computer systems will perceive low privacy because of insecurity of the systems (Tu, 2002b).

2.3.3. Social presence and education

Social presence is a key factor in improving the effectiveness of educational processes (Gunawardena, 1995; Ubon & Kimble, 2003), "as it helps increase social interaction, encourage learning satisfaction, initiate in-depth discussions and promote collaborative learning" (Ubon & Kimble, 2003:2). Social presence can "support the cognitive and affective objectives of learning" (p.3). When learners perceive a higher degree of social presence, they are more likely to engage in higher order critical thinking (Garrison et al., 2000; Rourke et al., 1999) and to be more satisfied with their learning experience (Gunawardena & Zittle, 1997).

Visual cues are an essential aspect of establishing social presence in face-to-face learning settings. Providing multiple nonverbal or paralinguistic cues, oral communication in a face-to-face environment is a rich medium (Garrison et al., 2000). Social climates created by CMC are different from those in a traditional face-to-face classroom. Even two-way interactive video and audio media - which can transmit facial expressions, gestures, and tone of voice - create interaction patterns that are different from face-to-face communication patterns (Gunawardena, 1995).

Bruce (1996) claimed that image quality, resolution and synchrony may influence the use of facial information in video communication. He argued that temporal information possibly conveys “subtleties in the timing of expressions and gaze which could be important for their interpretation” (p.174). So when the video frame rate is low and/or the audio channel is slow in compensating for delays caused by video compression, interpersonal perception may suffer.

O’Malley et al. (1996) found evidence to support Bruce’s view. They examined performance on a map task with learners participating in three experiments, which focused on the possible effects of (1) video-mediated versus audio-only interaction, (2) size of video image and (3) timing delays. Findings of the first two experiments showed that the learners in video-mediated interaction had to say more to achieve the same level of task performance than those in audio-only interaction. The results of the third experiment showed that the ‘delay’ factor in both video and audio interactions produced interruptions, which created problems in turn-taking management, and that the learners in the video communication group gazed far more than their face-to-face peers. The researchers concluded that remote communication, no matter whether visual cues are available or not, makes learners more cautious.

When a medium is used for an educational purpose, teachers have to ask whether the chosen communication channels are beneficial to students’ quality of learning. The application of text-based CMC in education may be more questionable, in terms of the level of social presence, than audio and video CMC. When cues are fewer, social presence is lower, and when social presence decreases, so does the sense of community (Rovai, 2002). Students who perceive a higher degree of social presence in a community will be more willing to participate actively in group and community activities.

Aragon (2003) proposed further strategies to establish and maintain social presence within online environments. Unlike other researchers, who placed the main responsibility of creating social presence on instructors, he divided the responsibility of establishing and maintaining social presence in an online course between three roles: course designers, instructors and participants.

Table 2.5 Aragon’s (2003) strategies to establish and maintain social presence

Course Design	Instructors	Participants
Develop welcome messages	Contribute to discussion boards	Contribute to discussion boards
Include student profiles	Promptly answer e-mail	Promptly answer e-mail
Incorporate audio	Provide frequent feedback	Strike up a conversation
Limit class size	Strike up a conversation	Share personal stories and experiences
Structure collaborative learning activities	Share personal stories and experiences	Use humour
	Use humour	Use emoticons
	Use emoticons	Use appropriate titles
	Address students by name	
	Allow students options for addressing the instructor	

In sum, online language teachers need to be aware of the impact of social presence on different learning situations before selecting a communication medium for a course. Without this knowledge, they will not be able to have their learners and themselves pay attention to the use of strategies to establish and maintain social presence.