

# Reflective Teaching

## The Principles and Practices

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ffective practice is becoming a dominant paradigm in ESL/EFL teacher education programs worldwide. Reflection-in-teaching refers to teachers subjecting their beliefs and practices of teaching to a critical analysis. However, the concept of reflective teaching is not clearly defined, and a plethora of different approaches with sometimes confusing meanings have been pushed in teacher education programs. This article reviews some current approaches to reflective teaching and then suggests a method of providing opportunities for ESL/EFL teachers to reflect on their work. The article seeks to examine: 1) reflective teaching and critically reflective teaching and, 2) the different approaches to reflective teaching. Five components of a teacher development model that can provide opportunities for practicing ESL/EFL teachers are discussed.

One day a young girl was watching her mother cooking a roast of beef. Just before the mother put the roast in the pot, she cut a slice off the end. The ever observant daughter asked her mother why she had done that, and the mother responded that her grandmother had always done it. Later that same afternoon, the mother was curious, so she called her mother and asked her the same question. Her mother, the child's grandmother, said that in her day she had to trim the roasts because they were usually too big for a regular pot.

Teaching without any reflection can lead to "cutting the slice off the roast," and can also lead to burnout on the job. One way of identifying routine and of counteracting burnout is to engage in reflective teaching.

### What is reflection?

In a review of the literature on reflective teaching, one discovers that there is much variance in the definition. Pennington (1992:47) defines reflective teaching as "deliberating on experience, and that of mirroring experience." She also extends this idea to reflective learning. Pennington (1992:47) relates development to reflection where "reflection is viewed as the input for development while also reflection is viewed as the output of development." Pennington

(1992:51) further proposes a reflective/developmental orientation "as a means for (1) improving classroom processes and outcomes, and (2) developing confident, self-motivated teachers and learners." The focus here is on analysis, feedback, and adaptation as an ongoing and recursive cycle in the classroom.

In a more recent article, Pennington (1995:706) says that teacher change and development require an awareness of a need to change. She defined teacher development as "a metastable system of context-interactive change involving a continual cycle of innovative behavior and adjustment to circumstances." She sees two key components of change: innovation and critical reflection. In her study of how eight secondary teachers moved through a change cycle as they learned about innovation, she noted that through "deep reflection, teachers were able to reconstruct a teaching framework to incorporate the previously contradictory elements" (1995:725).

Richards (1990:5) sees reflection as a key component of teacher development. He says that self-inquiry and critical thinking can "help teachers move from a level where they may be guided largely by impulse, intuition, or routine, to a level where their actions are

## SUMMARY OF DIFFERENT APPROACHES TO REFLECTIVE TEACHING OUTSIDE TESOL

Reflection Type and Author	Content of Reflection
Technical Rationality (Schulman 1987; VanMannen 1977)	Examining one's use of skills and immediate behaviors in teaching with an established research/theory base.
Reflection-in-action (Schon 1983, 1987)	Dealing with on-the-spot professional problems as they occur. Thinking can be recalled and then shared later.
Reflection-on-action (Schon 1983, 1987; Hatton and Smith 1995; Gore and Zeichner 1991)	Recalling one's teaching after the class. Teacher gives reasons for his/her actions/behaviors in class.
Reflection-for-action (Killon and Todnew 1991)	Proactive thinking in order to guide future action.
Action Research (Carr and Kemmis 1986)	Self-reflective enquiry by participants in social settings to improve practice.

guided by reflection and critical thinking." In referring to critical reflection in an interview with Farrell (1995:95), Richards says:

"Critical reflection refers to an activity or process in which experience is recalled, considered, and evaluated, usually in relation to a broader purpose. It is a response to a past experience and involves conscious recall and examination of the experience as a basis for evaluation and decision-making and as a source for planning and action."

Outside TESOL, the terms involving reflection become less clear. The definitions move from simply looking at the behavioral aspects of teaching, to the beliefs and knowledge these acts of teaching are based on, to the deeper social meaning the act of teaching has on the community.

According to Zeichner and Liston (1987:34) reflective action "entails the active, persistent and careful consideration of any belief or supposed form of knowledge. Routine action is guided primarily by tradition, external authority, and circumstances." Zeichner and Liston (1987:87) define teaching as "taking place when someone (a teacher) is teaching someone (a student) about something (a curriculum) at some place

and sometime (a milieu)." Dewey (1933:9) sees a further distinction in teaching when he says "routine teaching takes place when the means are problematic but the ends are taken for granted." However, he sees reflective action as entailing "active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further consequences to which it leads."

Recent research on reflective practice has used different and conflicting terms to define reflective teaching. Table 1 gives a summary of the major approaches to the study of reflective practice.

The first type of reflection, *technical rationality*, examines teaching behaviors and skills after an event, such as a class. The focus of reflection is on effective application of skills and technical knowledge in the classroom (VanMannen 1977), and it also focuses on cognitive aspects of teaching (Schulman 1987). Many beginning teachers start to examine their skills from this perspective in controlled situations with immediate feedback from teacher educators. The beginning teacher is trying to cope with the new situation of the classroom (Fuller 1970).

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The second notion of reflective practice is called *reflection-in-action* (Schon 1983, 1987). For this to occur, the teacher has to have a kind of knowing-in-action. Knowing-in-action is analogous to seeing and recognizing a face in a crowd without “listing” and piecing together separate features; the knowledge we reveal in our intelligent action is publicly observable, but we are unable to make it verbally explicit. Schon (1987) says that we can sometimes make a description of the tacit, but that these descriptions are symbolic constructions; knowledge-in-action is dynamic, facts are static. For Schon (1983, 1987), thought is embedded in action and knowledge-in-action is the center of professional practice.

Reflection-in-action, again according to Schon (1983, 1987), is concerned with thinking about what we are doing in the classroom while we are doing it; this thinking is supposed to reshape what we are doing. There is a sequence of “moments” in a process of reflection-in-action: (a) A situation or action occurs to which we bring spontaneous routinized responses, as in knowing-in-action; (b) Routine responses produce a surprise, an unexpected outcome for the teacher that does not fit into categories of knowing-in-action. This then gets our attention; (c) This surprise leads to reflection within an action. This reflection is to some level conscious but need not occur in the medium of words; (d) Reflection-in-action has a critical function. It questions the structure of knowing-in-action. Now we think critically about the thinking that got us there in the first place; (e) Reflection gives rise to on-the-spot experimentation. We think up and try out new actions intended to explore newly observed situations or happenings. Schon (1983, 1987) says that reflection-in-action is a reflective conversation with the materials of a situation.

The third notion of reflection is called *reflection-on-action*. Reflection-on-action deals with thinking back on what we have done to discover how our knowing-in-action may have contributed to an unexpected action (Schon 1987; Hatton and Smith 1995). This includes reflecting on our reflecting-in-action, or thinking about the way we think, but it is different from reflecting-in-action.

The fourth notion of reflection is called *reflection-for-action*. Reflection-for-action is different from the previous notions of reflection in that it is proactive in nature. Killon

and Todnew (1991:15) argue that reflection-for-action is the desired outcome of both previous types of reflection, reflection-in-action and reflection-on-action; however, they say that “we undertake reflection, not so much to revisit the past or to become aware of the meta cognitive process one is experiencing (both noble reasons in themselves) but to guide future action (the more practical purpose).”

The fifth notion of reflection is connected to *action research*. Action research is the investigation of those craft-knowledge values of teaching that hold in place our habits when we are teaching (McFee 1993). It concerns the transformation of research into action. As McFee (1993:178) says: “It is research into (1) a particular kind of practice—one in which there is a craft-knowledge, and (2) is research based on a particular model of knowledge and research with action as outcome...this knowledge is practical knowledge.” Carr and Kemmis (1986:182) say that action research: “is a form of self-reflective enquiry undertaken by participants (teachers, or principals, for example) in social situations in order to improve the rationality and justice of (a) their own social or educational practices, (b) their understanding of these practices, and (c) the situations (and institutions) in which these practices are carried out.”

We can see then, that there is a big difference between reflective action and routine action. If the review of the literature of reflective teaching reveals different definitions of the concept, the same is true for definitions of critical reflection. Outside TESOL, Hatton and Smith (1995:35) point out that the term *critical reflection*, “like reflection itself, appears to be used loosely, some taking it to mean more than constructive self-criticism of one’s action with a view to improvement.”

Hatton and Smith (1995:35), however, point out that the concept of critical reflection “implies the acceptance of a particular ideology.” This view of critical reflection in teaching also calls for considerations of moral and ethical problems (Adler, 1991; Gore and Zeichner 1991; VanMannen 1977), and it also involves “making judgments about whether professional activity is equitable, just, and respectful of persons or not” (Hatton and Smith 1995:35). Therefore, the wider socio-historical and political-cultural contexts can also be included in critical reflection (Zeichner and Liston 1987; Schon 1983, 1987).

In TESOL, too, the term *critical reflection* has been used rather loosely. Richards (1990) does not distinguish between reflection and critical reflection. Neither does he take the broader aspect of society into consideration when defining reflective practice. Similarly, Day's (1993) ideal of analytical reflection does not talk about the broader society. Also, Pennington (1995:106) defines critical reflection as "the process of information gained through innovation in relation to the teacher's existing schema for teaching." Again, the broader aspect of society does not play a significant role in her definition of critical reflection.

However, Bartlett (1990:204) sees a need to include the broader society in any definition of critical reflection. He says that in order for teachers to become critically reflective, they have to "transcend the technicalities of teaching and think beyond the need to improve our instructional techniques." He sees critical reflection as "locating teaching in its broader social and cultural context."

#### **Providing opportunities for ESL/EFL teachers to reflect: Five components of a teacher development model**

The five components of a language teacher development model presented here are the result of the experiences of an EFL teacher development group in Korea. In the fall semester of 1994, three experienced EFL teachers in Korea met to reflect on their work (Farrell 1996). This process of reflection included weekly group meetings, individual meetings, class observation, and regular journal writing (for a complete description of the study please see Farrell 1996).

The five core elements are not isolated but are all connected: One builds on the other and all need to be considered as a whole. The five components are:

1. Provide different opportunities for teachers to reflect through a range of different activities.
2. Build in some ground rules to the process and into each activity.
3. Make provisions for four different kinds of time.
4. Provide external input for enriched reflection.
5. Provide for low affective states.

**1. Provide different opportunities.** A range of activities should be provided for teachers to reflect on their work. These activities can be carried out alone, in pairs, or as a group. A group of teachers may decide to do one of the activities or a combination of any or all of them.

*Group discussions.* Group discussions can simply be a group of teachers who come together for regular meetings to reflect on their work. A teacher trainer (or moderator) should provide encouragement and support for the group.

*Observation.* Observation can be carried out alone, as in self-observation, in pairs observing each other's class (see also "critical friend" below) or the group can try to observe each member's class. (As observation can be a sensitive issue, a discussion of this is included in the section on built-in rules.)

*Journal writing.* Journal writing can be carried out alone in the form of a diary, in pairs writing to and for each other, and in the group writing to and for each other (see Brock et al., 1992 for ideas of "journaling together"). As with the other activities, some ground rules should be built in to this activity (addressed below).

*Critical friends.* Groups and individuals link critical friendships in some way to observations of classes. In this way the critical friends can have an open dialogue which is grounded in their observations and experiences. Colleagues can engage each other in systematic reflection and thus direct each other's professional self-development. Francis (1995:234) says that critical friends can "stimulate, clarify, and extend thinking...and feel accountable for their own growth and their peers' growth."

It is important to note that when utilizing any of the above activities in any program of professional self-development, the suggestions that follow components two through five should also be incorporated.

**2. Negotiated ground rules.** Initially, our group took a flexible approach, which was informal for each of the activities, and we did not specifically state what we wanted to achieve in each of the activities. With this level of flexibility in our group, each participant exhibited a different level of energy and commitment. For example, two of the participants were active in all of the activities, while

the other chose to be active in only one of the activities. This flexibility provided opportunities for the group to progress at its own pace, in a way which best suited each individual's own needs. Golby and Appleby (1995:156) say that too much flexibility in these situations can lead to "a danger that [the group] may just drift."

In fact, it appeared that at times we drifted off into our own agendas and there was a danger that more pressing (sometimes important but mostly trivial) matters or problems would take over. Therefore, I see a need for a negotiated set of built-in-rules or guidelines that each group or pair should follow in order to keep the drifting to a minimum. The model I present here can be adjusted to individual group needs.

Suggestions three through five are actually ground rules that can be built in to the activities. For example, who will chair the meetings? Will it be a revolving chair with a revolving level of responsibility to provide a site and refreshments, and set the agenda and length of the meetings? This chairperson should also be willing to use his/her position to protect and encourage the free expression of views.

For observations, certain understandings need to be negotiated ahead of time. For example, what are the responsibilities of the observer? Is intervention possible or desirable in the class? Will the class be videotaped, audiotaped, or neither? If you use a video, how will this be analyzed and why? What is to be observed and how?

For journal writing, our teacher development group found that the number of entries did not really influence the level of critical reflection, and if anything, led to more descriptions of teaching. Just as research has shown that preservice teachers tend to ramble in their writing (Francis 1995), our group tended to ramble on about personal matters outside their teaching in their writing. We exchanged our journals at the start of each group meeting but we did not discuss them.

A minimum set of guidelines needs to be negotiated to insure a deeper, critical level of reflection beyond mere descriptions of teaching. For this, groups/pairs should negotiate the number of frequency of entries and the type of entries. The following list of general questions may help get a writer started: Describe what you do nonjudgmentally. Why do you do it?

Should you continue to do it or change it? What do others do? (Our group tended to stay at level of describing what we do).

To suggest a set of built-in rules for "critical friends" is not easy because there must be an element of trust and openness present in order to avoid putting emphasis on the critical while overlooking the friend. Putting a greater emphasis on the friend implies trust and support that is needed to get at the critical level of reflection. Otherwise, we can, as Francis (1995:240) says, "lace observation and feedback with subjective judgments and a 'fix it assumption'."

The friend can provide another set of eyes that both support and challenge us to get at deeper reflections of our teaching. To encourage this openness, the initial conversations between critical friends (or all conversations) should be taped and analyzed. This analysis can include the use of questions in their relationship, in terms of type, power structures established, focus of observation, and usefulness. In this way critical friends can negotiate what they want to achieve. Of course, all of the above activities and built-in guidelines cannot be accomplished quickly; like all valuable things, they take time. This introduces the next component of the model: time.

**3. Four distinct types of time.** For practicing teachers to be able to reflect on their work, time is a very important consideration. Our group considered four different views/types of time:

1. Individual
2. Activity
3. Development
4. Period of reflection

*Individual.* Practicing teachers are very busy in their daily teaching and other related duties, and the amount of time any one teacher is willing to invest in his or her professional self-development will naturally vary. This can create a dilemma for the group if all the participants do not attend all the group meetings or participate fully in the activities; group cohesion may be harmed. Therefore, a certain level of commitment by individual participants in terms of time availability should be negotiated by the group at the start of the process.

*Activity.* Associated with the time each participant has to give the project is the time that should be spent on each activity. For



example, our group meetings were scheduled to last for one hour, whereas they lasted for three hours. This was both good and bad; it provided more dialogue, but it also exhausted everyone as the term progressed.

Time for the observation process is concerned with the number of observations. Two of the participants in our group allowed observations once a week, the other four times during the semester. The number of times a class can be observed should be negotiated by each group while also taking the first notion of time (individual) into consideration.

The journal also needs time: time to write and time to read. Our group read each other's journal at the beginning of each group meeting, but we wrote it at home. However, we did not comment on the journals. An alternative way would be to have time to write and read at the beginning and/or end of each group meeting.

*Development.* Another aspect of time that is important for teacher self-development groups is the time it takes to develop. Golby and Appleby (1995:158) point out that "teachers do not readily confront their problems with a reflective approach." Elbaz (1988:173) says that teachers "have a common concern to reduce the complexity of the situation, to accept neat and obvious accounts of the causes of the problems." Analytical reflection, therefore, takes time and only progresses at a rate which individual teachers are ready to reflect critically.

Our group encountered two distinct stages. The first stage was what I call the "getting to know you" stage. We were feeling each other out and negotiating our personal and group agendas. When we started trusting each other a little more, we entered a second stage, which I call the reflective stage. The first stage took five group meetings over a seven-week period. Other groups will no doubt experience different stages over a different time period.

*Period of reflection.* The period of time it takes to become reflective is connected to the last aspect of time presented here: the time frame for the project as a whole. How long should a group, a pair, or an individual reflect? It is important to consider this for two reasons. First, reflection takes time, so the reflective period should be correspondingly long rather than short; otherwise, it will be

time wasted. Secondly, having a fixed period in which to reflect allows the participants to know what period during the semester they can devote wholly to reflection. Our group survived, according to one of the participants, because "we had an end in sight."

**4. External input.** The previous three suggestions utilize the idea of probing and articulating personal theories, which is at the center of teacher professional self-development. This is a process of constructing and reconstructing real teaching experiences, and reflecting on personal beliefs about teaching. However, at this level, reflection only emphasizes personal experiences, which Ur (1993:20-22) says promotes "a relative neglect of external input." Teacher education, whether preservice or inservice, requires input from "vicarious experiences, other peoples' observations and reflection,...and from other peoples' experiments, and from theories learned from research and the literature."

Our group did not provide the external input Ur discusses. This may be one possible reason that reflection, for the most part, remained at the descriptive rather than analytical level in our project. We reflected on our teaching as individual teachers, but we did not compare this with other peoples' opinions (university experts or other teachers).

If groups of teachers readily accept each other's perceptions of their teaching and support these perceptions regardless of what outsiders say, Nias (1987:140) points out, they "also inhibit change; by definition there is seldom dissent or creative tension." Individuals and groups in a process of professional self-development need to be challenged by external input for a more "enriched reflection" (Ur 1993). This external input can come from professional journals, other teachers' observations, and book publications of case studies.

**5. A low affective state.** The above four components of the model all pose some threat and associated anxiety for practicing teachers. Nias (1987) has pointed out that change in the practice of teaching is not easy but a lengthy and potentially painful process. Inevitably, there will be a certain level of anxiety present. Francis (1995) indicates that for in-depth reflection to occur, which is not automatic, anxiety is present. Therefore, a non-threatening environment should be fos-

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tered in the group by the individuals themselves. Ways of establishing low anxiety can be incorporated, such as emphasizing description and observation over judgment. Category systems such as Fanselow's FOCUS (1987) and/or Acheson's and Gall's (1987) SCORE could also be used to reduce anxiety associated with judgments (we used both category systems to help with our reflections).

### Conclusion

Reflective teaching can benefit ESL/EFL teachers in four main ways: (1) Reflective teaching helps free the teachers from impulse and routine behavior. (2) Reflective teaching allows teachers to act in a deliberate, intentional manner and avoid the "I don't know what I will do today" syndrome. (3) Reflective teaching distinguishes teachers as educated human beings since it is one of the signs of intelligent action. (4) As teachers gain experience in a community of professional educators, they feel the need to grow beyond the initial stages of survival in the classroom to reconstructing their own particular theory from their practice. Dewey (1933:87) said that growth comes from a "reconstruction of experience" so by reflecting on our own experiences, we can reconstruct our own educational perspective.

If English as a second or foreign language teaching is to become recognized as a professional body, then teachers need to be able to explain their judgments and actions in their classrooms with reasoned argument. Ways of achieving this level of reason include reflecting on teaching experiences and incorporating evidence from relevant scholarship into teaching routines, which can lead to growth and development. Lange (1990) sees an intimate relationship between reflective teaching and teacher development:

"The reflective process allows developing teachers latitude to experiment within a framework of growing knowledge and experience. It gives them the opportunity to examine their relations with students, their values, their abilities, and their successes and failures in a realistic context. It begins the developing teacher's path toward becoming an 'expert teacher' (Lange 1990:240–250)."

ESL/EFL teachers, meeting regularly in any of the forms outlined in this article, will begin to see how much they have in common, become more comfortable explaining their

teaching routines to themselves and others, and may come to experience and enjoy a new level of self-articulated professionalism.

### References

- Acheson, K. and M. Gall. 1987. *Techniques in the clinical supervision of teachers*. New York: Longman. (2nd. ed.)
- Adler, S. 1991. The reflective practitioner and the curriculum of teacher education. *Journal of Education for Teaching*, 17, 2, pp. 139–150.
- Bartlett, L. 1990. Teacher development through reflective teaching. In *Second Language Teacher Education*. eds. J. Richards and D. Nunan. New York: Cambridge University Press.
- Brock, M., B. Yu, and M. Wong. 1992. "Journaling" together: Collaborative diary-keeping and teacher development. In *Perspectives on second language teacher development*. eds. J. Flowerdew, M. Brock, and S. Hsia. Hong Kong: City University of Hong Kong. pp. 295–307.
- Carr, W. and S. Kemmis. 1986. *Becoming critical: Education, knowledge and action research*. London: Falmer Press.
- Day, C. 1993. Reflection: A necessary but not sufficient condition for teacher development. *British Educational Research Journal*, 19, 1, pp. 83–93.
- Dewey, J. 1933. How we think. In *Mental Discipline in Modern Education*. ed. W. Kolesnick. Madison, WI: University of Wisconsin Press.
- Elbaz, F. 1988. Critical reflections on teaching: insights from freire. *Journal of Education for Teaching*, 14, pp. 171–181.
- Fanselow, J. 1987. *Breaking rules*. New York: Longman.
- Farrell, T. 1995. Second language teaching: Where are we and where are we going? An interview with Jack Richards. *Language Teaching: The Korea TESOL Journal*, 3, 3, pp. 94–5.
- . 1996. A qualitative study of the reflections of four experienced EFL teachers in Korea as they reflect on their work. Unpublished doctoral dissertation. PA: Indiana University of Pennsylvania.
- Francis, D. 1995. The reflective journal: A window to preservice teachers' knowledge. *Teaching and Teacher Education*, 25, 2, pp. 229–241.
- Fuller, F. 1970. *Personalized education for teachers: An introduction for teacher educators*. Report No. 001. Austin, Texas, Research and Development Center for Teacher Education.
- Golby, M. and R. Appleby. 1995. Reflective practice through critical friendship: Some possibilities. *Cambridge Journal of Education*, 25, 2, pp. 149–160.
- Gore, J. and Zeichener, K. 1991. Action research and reflective teaching in preservice teacher education: A case study from the United States. *Teaching and Teacher Education*, 7, pp. 119–136.
- Hatton, N. and D. Smith. 1995. Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education*, 11, 1, pp. 33–39.

- Killon, J. and G. Todnew. 1991. A process of personal theory building. *Educational Leadership*, 48, 6, pp. 14–16.
- Lange, D. 1990. A blueprint for a teacher development program. In *Second Language Teacher Education*, eds. J. Richards, and D. Nunan. New York: Cambridge University Press.
- McFee, G. 1993. Reflections on the nature of action-research. *Cambridge Journal of Education* 23, 2, pp. 173–183.
- Nias, J. 1987. Learning from difference: A collegial approach to change. In *Educating Teachers*, ed. J. Smyth. Barcombe: The Falmer Press.
- Pennington, M. 1992. Reflecting on teaching and learning: A development focus for the second language classroom. In *Perspectives on Second Language Classroom Teacher Education*, eds. J. Flowerdew, M. Brock, and S. Hsia. Kowloon: City Polytechnic of Hong Kong.
- . 1995. The teacher change cycle. *TESOL Quarterly*, 29, 4, pp. 705–731.
- Richards, J. 1990. Beyond training: Approaches to teacher education in language teaching. *Language Teacher*, 14, 2, pp. 3–8.
- Schon, D. A. 1983. *The reflective practitioner*. New York: Basic Books.
- . 1987. *Educating the reflection practitioner: Towards a new design for teaching and learning in the profession*. San Francisco, CA: Jossey-Bass Publishers.
- Schulman, L. 1987. Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57, pp. 1–22.
- Ur, P. 1993. Teacher learning. In *Building on strength*. 2. The proceedings of the ACTA/ATESOL (NSW) National Conference and 8th Summer School. Sydney, Australia: ATESOL, NSW.
- VanMannen, M. 1977. Linking ways of knowing with ways of being practical. *Curriculum Inquiry*, 6, pp. 205–228.
- Zeichner, K. and O. Liston. 1987. Teaching student teachers to reflect. *HER*, 57, 1, pp. 22–48.

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