Conversation and Discourse in Instructional Development

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An often overlooked aspect of instructional development (ID) is the personal communication usually accompanying development efforts. Most ID models emphasize technical processes such as needs assessment, performance analysis, goal definition, and test construction. In practice, however, such technical processes are accompanied by a parallel process of personal communication and negotiation among those involved. Personal communication is especially crucial in a team project, but even a single developer often has to converse with others to obtain advice and service. Conversation skills are part of the repertoire of interpersonal skills needed for successful instructional development (Coldewey & Rasmussen, 1984; Bratton, 1979).

This article draws upon both our observations and a review of the literature for suggestions of ways to enhance personal communication in ID. We emphasize that every development effort is an opportunity for participants to learn more about the content taught and the development process, as well as about each other. We argue that communication skills are as important as technical skills in overcoming ID's inherent limitations, promoting team understanding and trust, and ensuring quality. Although talk is cheap, the right kind of talk can significantly enhance team interaction and development outcomes.

Underlying Limitations of ID

Although development models vary, they have common characteristics (cf. Crilly, 1980; Diamond, 1980; Patton, 1980). Most assume that teaching is more technology than art—that there is a body of knowledge one can acquire and apply to make instruction more effective. Development models emphasize specificity and the use of research-based evidence in identifying instructional ends and means. They often include systematic attention to a range of factors affecting implementation. They present the development process as iterative, implying that instruction often will be deficient when first attempted, that knowledge of what will work is incomplete, and that revisions based on tryouts will ensure that the instruction becomes more effective in successive approximations. Finally, they describe a logical progression of activities for doing development, usually with a caveat that the process is not as linear as portrayed and that decisions at any stage in development seldom are made without reference to later ones.

Rationality, objectivity, and empiricism are hallmarks of ID models—and they should be. In practice, however, these ideals are not always attainable, and there are limits to the extent they can be realized in even the best of situations. Empirical evidence to guide development is not always available and its collection may not be feasible. For example, there are various empirical techniques for ascertaining what should be taught, but many have only marginal utility when the great effort involved is compared to the moderate importance of objectives and numbers of students affected. Similarly, there are research-based rules for designing instruction, but in any given situation, you may not know exactly to apply them, and it is not practical to carry out the controlled experimentation needed to determine this. Moreover, tryout data generally concern instruction as a whole, not specific design methods. Data gathering is constrained by available resources, and the relevance of existing instructional research and the meaning of information garnered in tryouts require judgment. In addition, any objective data collection method will have its own elements of subjectivity (Cronbach, 1975; Maslow, 1966). Subjectivity is part of any human endeavor. Even science depends on common sense, and what constitutes common sense among individuals, groups, and societies changes constantly. People understand phenomena within the context of what is already known, and perception is affected accordingly (Campbell, 1973). What people know or believe depends on propositional and tacit knowledge. The former is acquired through interpersonally shared statements about objects and events, while the latter is not immediately expressible in words or symbols (Polanyi, 1967). Tacit knowledge, based on the notion that "we know more than we can tell," enables people to comprehend metaphors, empathize feelings, and recognize faces without attending to specific features. Objectivity can only be approximated and cannot be divorced from its perceivers (Petrie, 1976; Pirsig, 1974). And even if people perceive and interpret "objective" information similarly, they may not use it in a way all would consider "rational." Decision makers, for example, tend to search for information until they find solutions that are satisfactory, rather than optimal (Simon, 1969). They attend to information selectively and reject whatever is incompatible with their existing beliefs (De Sola Pool, 1973; Eisner, 1980; Sears & Whitney, 1973).

In sum, all development projects involve subjectivity and each participant brings a different point of view. Studies have shown that as development proceeds people exchange information, including information about their beliefs. Participants argue for and against alternatives and choose the most defensible alternatives. (Cashell, Lent, & Richardson, 1975; Walker, 1970). In such deci-
issions, objective information and reason play a role, but it may not be the most important role.

**Negotiation and Conversation**

Given that people are likely to bring varied backgrounds and expectations to development projects, especially when interdisciplinary teams are used, the process can be viewed as one of negotiation about what should be accomplished and how. Negotiation has four characteristics (Lazer, 1979), each of which may be present in development:

- **Common and conflicting goals.** When people have some shared and some discrepant aims, they can negotiate to lessen the discrepancies. Although the single, overarching goal in development is to solve a performance problem, those involved will have some shared and some conflicting ideas about objectives, solutions, and implementation.

- **Non-zero results.** Everyone negotiating expects to gain something. In development, it may be to have ideas accepted or to obtain other rewards for contributing to the development project. What constitutes a gain or reward varies among individuals.

- **Variable values.** In a development project, participants will attach different values to information exchanged, concessions made, or the rewards possible, and, in the course of negotiating a project, participants may alter their evaluation of what portions of the project mean to them. For example, as a program develops, ownership feelings may come to have more value to some participants than the initial released time did; an idea rejected at one time may regain currency as more information is obtained.

- **Imperfect information.** In negotiation, all participating parties have inadequate information. As discussions proceed, participants exchange information, gather data, and clarify issues. Out of this gradually emerges a better sense of direction and of the issues that must be resolved to complete the project.

Issues require negotiation, and any development decision, assumption, or approach to which there are discrepant opinions or perceptions can be considered an issue. Issues can exist in many areas, such as goal validity, content treatment, instructional strategies, and evaluation procedures. Participants resolve issues by exchanging information, making concessions, or both. Furthermore, as the project progresses, issues that have already been resolved can be raised again by original team members, or, more likely, by new participants. When the participants change, the issues change.

Negotiation can be approached several ways. One is to consider the process adversarial, with winners and losers. In a more benign form, this approach entails search for agreements where everyone wins, but with each participant attempting to manipulate the situation by defining what constitutes winning. Someone selling a house, for example, may eventually concede to move out early even though they already planned to do so, while telling the buyers the asking price should be accepted because of this "sacrifice."

Negotiation can also be handled as a mutual search to resolve differences. This kind of negotiation is more appropriate for development efforts. However, there are occasions in development when differences are not understood and the communication process breaks down. Individuals may insist on having things their way, information may be withheld, its flow interrupted. In negotiation based upon cooperation and inquiry, communication is paramount. In order to confer and accomplish, people must be able to converse.

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**Relevant Theories**

Four theories having implications for conversation and discourse in instructional development are:

1. Pask's conversation theory;
2. Habermas's theory of communication competence;
3. Argyris and Schön's theory of interpersonal interaction; and
4. Stake's model for responsive evaluation.

Though these theories are drawn from different fields, all focus on knowledge, the assumptions and ideas affecting action, or the communication processes through which agreements about knowledge and action are reached. Each theory is supported by research studies or propositions from the philosophy of science, and each helps explain the nature of conversation and its improvement.

**Pask's conversation theory** (1976) is based on attempts to develop intelligent computer programs that model the acquisition of knowledge and requirements for agreement and understanding in human discourse. Mechanisms whereby students and computers can converse in subject domains are created by identifying concepts within the domain and specifying their interrelationships. Concepts are key words or phrases explaining the subject, and the instructional authoring process demands that each be defined unambiguously and in ways that do not contradict previously made statements. When authoring is complete, a concept map is created that can be displayed graphically, so students can choose which concepts to learn in any order. The maps are called entailment structures, and there is little evidence of unique structures for given subjects. This not only adds credence to the idea that content relationships are more complex than simple hierarchies (Bergan, 1980), but suggests content relationships are idiosyncratic to those developing the instruction, representing not the structure of the subject, but the developers' perceptions. In addition, Pask has discovered different learning styles when people converse in a subject domain. Some progress serially, one step at a time, within a small area of the subject. Others are wholistic, preferring to get a broad, partial overview before learning details.

Generally, wholists learn more efficiently and have greater tolerance for
uncertainty. Since developers are trying
to learn about the most appropriate
solution to a performance problem, such
differences in learning style may come
into play. Serialists may discuss
development decisions linearly, while
wholists discuss those more distant.
Serialists may view wholists as unable to
stick to the point; wholists may view
serialists as rigid.

**Habermas’s theory of communication
competence** is part of the work of Jurgen
Habermas (1973, 1975) concerning the
problem of objective technical pro-
cedures being used for practical, value-
laden purposes. Drawing upon the work
of Hegel and Marx, he has described
ideal communication conditions in
which all participants have an equal
chance to initiate and perpetuate
discourse and to question comments of
others under circumstances that reduce
distortion or domination stemming from
strategy, barriers, ideology, or neurosis.

Although concerned with discourse at
a societal level, Habermas has specified
conditions for open communication ap-
propriate to ID. These conditions in-
clude:

1. involving a broad range of par-
ticipants who are affected by a project;
2. providing equal opportunity to
start and carry on discussion;
3. allowing all participants to ques-
tion ideas of others; and
4. monitoring discussion to avoid
domination, distortion, or use of
manipulative strategy.

These conditions assume that those in-
volved in a conversation can competent-
ly monitor and reflect upon the discus-
sion process and their own behavior.

Chris Argyris and Donald Schon
(1974) have developed a **theory of in-
terpersonal interaction** based on studies
indicating that people lack open com-
munication skills and the ability to
monitor their thoughts and actions.
Argyris and Schon have analyzed per-
sonal communication by having people
write out what was actually said and
what accompanying thoughts transpired
in both pleasant and stressful situations.
They also asked people to describe how
they try to behave interpersonally. They
have found large discrepancies between
people’s theories and what they practice.

The prevalent theory concerning per-
sonal communication is characterized by
attempting to manage conversation
unilaterally. The theory is a tacit one,
based on competition, diplomacy, and
manipulation. Argyris and Schon sug-
gest an alternative inquiry-oriented ap-

**Discussion** made possible by:

1. maximizing valid information
through publicly testing perceived or
attributed meanings attached to
the statements and actions of others;
2. providing others with accurate
reports of one’s own feelings, beliefs,
and assumptions;
3. making all discussants responsible
for managing the conversation and im-
plementing resulting agreements; and
4. using terms denoting directly
observable behavior when speaking
rather than words attributing motive or
inferring judgment.

The fourth theory, **responsive evalua-
tion**, was developed by Robert Stake
(1975) as an alternative to quantitative
assessment methods. Responsive evalua-
tion provides a means for focusing con-
versation on inquiry in development set-
tings. Full portrayals are emphasized, few
assessment procedures are prespecified,
and evaluators concentrate on identify-
ing issues and gathering data so that
issues are resolved. The evaluation pro-
cess becomes an occasion for discourse,
resulting in shared perceptions of mean-
ing and value and reflection upon the
validity of varied expectations, not ob-
jective truth. Truth and value assume a
kind of internal validity, defined in
terms of those involved, that continually
changes as more becomes known. The
approach can be used to probe the tacit
meanings, feelings, beliefs, and concerns
of development participants. Team
evaluators and others attend to discrep-
cancies in what is said, proposing
these as potential issues. The evaluators
separate, sort, and sequence issues so
that issues are addressed logically, and
they gather data that help to illuminate
or eliminate issues identified.

Together, the theories pinpoint prob-
lems affecting conversation in ID, such
as the relativity of knowledge, dif-
fences in learning styles, and tacit
theories of conversing that are barriers
to reaching agreements about objectives,
content, and instructional procedures.
The barriers are so formidable that it is a
wonder anything can be accomplished.
But the theorists do not just present prob-
lems and leave practitioners in despair.
Pask has shown that people can acquire
better learning styles, while Argyris and
Schon have demonstrated that people
can articulate and modify their tacit in-
terpersonal theories. More importantly,
all the theories suggest conditions for
more effective discourse in instructional
development. The conditions, listed in
Table 1, are not only rules for guiding
discussion, but also understandings and
attitudes that might be shared by
development participants.

**Continuing Problems**

If there are obstacles to applying ob-
jective, rational technical development
methods, there are also impediments to
establishing more effective communica-
tion conditions.

First, language and cultural dif-
fferences limit the extent people can com-
municate.

Second, deadlines can limit discussion
time. Deliberations take longer when all
ideas are examined, something not bad
when talk is on target. But what con-
stitutes a digression and who should
make that determination?

Third, focusing on real or potential
differences in discussion can result in
unintentionally creating issues that do
not exist, diverting attention to insignifi-
cant issues, or exaggerating issues. Dif-
fferences can arise over something as ma-
ior as evaluation methodology or as
minor as a handbook title. Who deter-
mines which issues merit most attention
and how?

Fourth, people communicate on dif-
ferent levels and some are more ar-
ticulate. Conversation helps convey
meaning but does not guarantee one will
be understood.

Fifth, people have beliefs that are non-
negotiable. For example, some subject
experts have folk ideas about instruc-
tion, originating in training traditions,
and some developers have standards for
creating instruction they are unwilling to
compromise.

Finally, some people may not see the
need for establishing or maintaining ef-
fective conversation or be willing to in-
vest the effort.

**Conclusion**

There are practical limits to the use of
technical ID methods, and it is not
always possible to resolve development
issues empirically. Subjectivity and in-
terpersonal sharing of perception and
meaning are necessary, requiring infor-
mation exchange and conferring by
those involved. The process can be more
or less directed toward inquiry and is af-
fected by learning styles and individual
beliefs regarding interpersonal interac-
tion. Several theories highlight personal
communication problems and condi-
tions for making conversation more ef-
fective in development contexts.

Although there are problems in im-
plementing these conditions and limits