Our review of conceptual frameworks for the present study continues with a consideration of theories dealing with teacher-student interaction in online higher education, the teacher-student relationship in theological education, learning outcomes in higher education, and Web-based survey research.

Theories Related to Teacher-Student Interaction Online

A review of theories related to teacher-student interaction online should begin with Moore’s concept of Transactional Distance. According to Moore, his model (proposed in its initial form in...
1972) was the first attempt in English to give distance education a theoretical base (1991, 2). Fundamental to this concept is an understanding of distance as

a distance of understandings and perceptions, caused in part by the geographic distance, that has to be overcome by teachers, learners and educational organizations if effective, deliberate, planned learning is to occur. (Moore, 1991, 2)

The amount of transactional distance in any given educational situation is determined by dialogue and structure. Dialogue refers to the amount of two-way communication between teacher and student, and structure refers to the extent to which a teaching program has the flexibility to be responsive to an individual learner’s needs (Moore, 1991, 3–4). These two variables are seen as being in an inverse relationship to one another. When dialogue is high and structure is low, transactional distance is low. Conversely, when dialogue is low and structure is high, transactional distance is high. Moore also discusses the element of learner autonomy, bringing in the idea that the greater the transactional distance, the more autonomy the learner will have to exercise (Moore, 1993, 27). Congruent with Moore’s concept is the idea that perceived learning outcomes increase as the transactional distance between teacher and learner decreases (Chen & Willits, 1998).

Moore’s theory has generated much discussion, but its refinement and usefulness has been hindered by a lack of supporting research. More than two decades after its first appearance, Chen and Willits were able to locate only three published studies that investigated the concepts of Transactional Distance (1998). These three studies tend to support Moore’s theory, but Chen and Willits’ own study did not. In their report, they consider the possible reasons for this result, and first hypothesize that their research was deficient. But Chen and Willits’ second hypothesis is that Moore’s theory is flawed:

Structure may not . . . lead to a “communications gap” or “a psychological space of potential misunderstandings.” Indeed, it seems likely that structure of course design and delivery could sometimes facilitate understandings between teachers and learners. Similarly, rather than decreasing transactional distance, learner autonomy could actually interfere with interaction and
thus contribute to a greater transactional distance between instructor and learners. (Chen & Willits, 1998)

Garrison argues that the nature of the elements of Moore’s theory is unclear, noting that it is uncertain whether they are variables, dimensions, or clusters. The issue is important because it determines the nature of the interrelationships: “Understanding transactional distance very much depends upon whether we are discussing a two-by-two matrix, a single continuum, or distinct clusters” (2000). Munro also points out that the concepts seem to overlap (e.g., structure and autonomy) (1998, 18).

Saba proposes a systems dynamics model to represent the relationship between structure and dialogue, explaining that the correct approach is not to reduce transactional distance in all cases, but to provide the right balance of dialogue and structure to fit any given situation (1988, cited in Saba, 1990). Saba and Shearer have attempted to empirically validate their systems dynamics version of transactional distance (1994), but the reaction has been mixed (Vrasidas & McIsaac, 1999, 32–33).

Even if Moore’s theory were true and reducing transactional distance could increase perceived learning, some would argue that the impersonal quality of computer-mediated communication (CMC) makes it ill-suited to increasing dialogue (Chambers, 1999; Grubb & Hines, 2000, 366; LaRose & Whitten, 2000, 324; Marland, 1997, 85). However, Walther’s “social information processing” theory posits that these impersonal qualities “may be strictly bounded to initial interaction conditions among previously unacquainted partners” and “should dissipate over time” (1992, 54–55). In other words, Walther’s research supports the idea that relationships in a CMC environment develop just like face-to-face relationships, only more slowly (Chenault, 2000). This might explain Brown and Duguid’s conclusion that “[while] Net interactions offer profoundly useful means to support and develop existing communities, they are not so good at helping a community to form or a newcomer to join” (1996, 17).

If Walther’s hypothesis were correct, it would support the usage of cohort groups in online learning, so that the interaction between participants would be extended over as long a time

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1Vrasidas and McIsaac also make the point that increased structure can increase dialogue (1999, 32–33).
period as possible. It would also suggest that a combination of face-to-face and online contexts would be desirable (Bourgond, 1999, 124; Dede, 1996, 18). Logic would say that an initial face-to-face exposure could help a cohort build relationships that could be maintained and strengthened at a distance (Reissner, 1999, 90). Haythornthwaite, Kazmer, Robins, and Shoemaker studied just such a program that starts with a face-to-face exposure called “boot camp”:

We are pleased to find a strong sense of community, initiated by the boot camp, and sustained at a distance via computer media... Interviews show how students, interacting from a distance and starting from a position of isolation, make connections with fellow students and recognize and live with members of a virtual community. (2000)

Recently, a group of researchers put forth a sweeping theory of education, the “community of inquiry” model, which they use to “illustrate the multifaceted components of teaching and learning in a text-based environment” (Anerson, Rourke, Garrison, & Archer, 2001; Garrison, Anderson, & Archer, 2000, 2001; Rourke, Anderson, Garrison, & Archer, 2001). The model is intriguing and it is hoped that the coming years will bring the research needed to test its three elements and their relations to each other:

The first element in the model is the development of cognitive presence, which Garrison et al. (2000) define as “the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication.” The second element is teaching presence, which includes designing and managing learning sequences, providing subject matter expertise, and facilitating active learning. The third element is social presence, defined as the ability of learners to project themselves socially and emotionally in a community of inquiry. The function of this element is to support the cognitive and affective objectives of learning. (Rourke et al., 2001, 2)

In this model, teaching presence is further divided into design and administration, facilitating discourse, and direct instruction (Anderson et al., 2001). The authors compare their concept of teaching presence with Mason’s model (1991), noting that they have made Mason’s social element of teaching a separate aspect (social presence) of the educational experience distinct from
teaching (teaching presence). Although it is theoretically true that “the creation of the social environment is the responsibility of students as well as teachers,” one wonders how much of that responsibility online learners are actually willing and able to assume. It seems more likely that the responsibility for the “creation” of such an environment will almost always fall on the shoulders of the instructor, whereas the students may well take on responsibility for its maintenance.

Three other theories that relate to teacher-student interaction are Social Presence theory, the Cues Filtered Out hypothesis, and Media Richness theory (Walther, 1992, 54). All three posit that media have certain characteristics that affect communication and interaction.

Social Presence theory states that “communications media vary in their degree of Social Presence, and that these variations are important in determining the way individuals interact” (Short, Williams, & Christie, 1976, 65, cited in Walther, 1992, 55). The Cues Filtered Out hypothesis states that in CMC nonverbal social context cues are absent which would normally define the social situation and the participants’ relative status (Sproull & Kiesler, 1986, cited in Walther, 1994, 462). The absence of these cues affects interpersonal interaction. Media Richness theory postulates that certain media are “richer” than others with regard to their numbers of “channels” and capacity for the transmission of information. Some researchers use the term “bandwidth” (Daft & Lengel, 1984, Rice, 1984, both cited in Caldwell, 1993).

These theories are relevant because, for example, Hiltz and Turoff (1993) report that research indicates that social presence is positively correlated with learning outcomes (cited in McLellan, 1999, 40). That CMC has fewer channels of communication is indisputable. But Gunawardena and Zittle argue that participants can adapt to the medium and create social presence in spite of it (1997, 10–11). One group of authors suggests that this can occur in a CMC environment by using affective, interactive, and cohesive responses (Rourke et al., 2001). They illustrate these with specific suggestions. Affective responses would be expressing emotions, using humor, and self-disclosure. Interactive responses would be continuing a discussion thread instead of starting a new one, quoting from or referring explicitly to others’ messages, asking questions, complimenting or expressing appreciation, and
expressing agreement. Cohesive responses would be addressing participants by name, using inclusive pronouns, such as “we” or “us,” and using communication that has a purely social function, for example, a salutation (Rourke et al., 2001).

The Teacher-Student Relationship in Theological Education

The past half-century has witnessed an ever-increasing call for the reform of theological education (Young, 1998, 76; Banks, 1999, 10–11; Davis, 1998, 485; Veling, 1999, 411; Howard, 1999, 9; Leith, 1997, 9). Ferris argues that nothing less than the “revitalization of the church’s life and ministry” is at stake in this issue (1996, 55). In his review of theological education literature, Howard lists more than a dozen competing models, and the importance of the teacher–student relationship figures prominently in several of them (1999, 21–22).

A discussion of the importance of this element in theological education often begins with a look at the subject of teaching in the Bible (Burton, 2000, 1–4). For example, Banks argues that the Bible particularly emphasizes the personal and communal aspects of the teaching process in theological education (1999, 169–186). Covell examines the teaching methods of Jesus and concludes that a personal relationship between teacher and student is of utmost importance to an adequate education for the ministry:

If we merely impart content to our students and do not take the time to know them, to understand them, and to live with them to the degree that we are able to evaluate them, we are not fully educating them. The traditional school does not afford us a good context in which to evaluate the total life of the student. We are able to tell how he does in his courses.... However, we often know little about many of those things that will cause him to succeed or fail in his ministry. (1971, 39–40)

It is also argued that good educational principles require an emphasis on teacher–student relationships in theological education. For example, Keane and May write that teachers of theology at “good” theological schools “teach by personal presence with their students” (1994, 37).
Bruinsma reports mixed results on 10 years of informally surveying more than five hundred students from his Introduction to Teaching class at King’s University College, a Christian school in Canada. In choosing from a group-generated list of 20 traits that might characterize a “good” teacher, students have tended to choose relationship skills less than other types of skills. Some of the lowest scoring traits are “friendly,” “caring,” “approachable,” and “role model.” On the other hand, half of the traits generated relate to the professor’s empathy with the students. Bruinsma believes that although students expect a teacher first of all to be an expert craftsperson in the subject at hand, they want this to be combined with teacher–student interaction characterized by empathy and understanding (1997, 114).

Banks asserts that “What most people coming into theological institutions desire is the opportunity to get to know their teachers personally” (1999, 227). TenElshof agrees, writing that her number one discovery in working to promote character formation in seminary is that “students are hungry for relationship.” She urges faculty to take an active part in their students’ lives (1999, 87).

The fact is that theology students have complained about a lack of personal contact with their professors for many years. Three decades ago Kerr wrote:

When seminarians complain nowadays, as they have been doing for years and years, about the lack of campus community, they are not referring to the fragmentation and tribalism of modern life…. It’s not fun and games students are looking for, but common gestures of personal worth, honesty, respect, and mutual regard. And where they sense the greatest lack of these simple virtues is in their dealings and relations with their professors…. They yearn for less classroom formality… Teachers, I think—and I include myself at the top of the list—have been so busy teaching their subjects that they have little time for their students. (1973, 394–395)

Kerr states that student evaluations almost always show that they want teachers to have two things: (1) competence, preparation, and interest in the subject; and (2) personal interest in the students. He goes on to document his efforts to strengthen the personal and communal dimensions of his own teaching, and ends by concluding that it was more work, not always successful, but worth it (1973, 395–400).
Stratton and Owens cite Wolterstorff to make the point that “it is the actions of a professor, not the ‘preaching’ that helps determine whether the message is internalized” (1993, 96). They make an appeal for more faculty mentors, whom they conceive of as teaching, modeling, and nurturing. “Truth must be embodied as well as articulated, incarnated as well as revealed,” echoes Banks (1999, 172).

Young goes so far as to say that the quality and modeling of the faculty is the primary factor that determines the effectiveness of a program of theological education (1998, 82). In support of this, one major qualitative study concludes that the faculty dominates a student’s experience of theological education:

Faculty members are powerful agents in the educational process, not functionaries. Their roles are complex and multi-faceted: their ingrained patterns of speech and movement, long-established attitudes toward others and feelings about themselves, and deeply rooted convictions and commitments have at least as much to do with what students take away from the school as any syllabuses and lecture notes. (Carroll, Wheeler, Aleshire, & Marler, 1997, 273–274)

The concept of mentoring is of interest to the present study because it represents the most personal type of teacher–student relationship. In his explanation of a biblical perspective on training in ministry, Burton points out the well known but often ignored fact that Jesus and Paul used this “apprenticeship” method (2000, 4). Gonlag argues that the “full fruition” of theological education requires a mentoring relationship between an older, experienced pastor and a new pastor:

Can the classroom setting truly nurture a burden for the lost, a heart for ministry to people, or a passion for the preaching of the Word? Admittedly, the Lord sometimes breaks into a formal class in an awesome way, but, more often than not, transforming moments come in the context of doing ministry. . . . Thus, ministerial development is an intimate, personal process of discipleship that demands the context of personal ministry for its full fruition. (1996, 209)

The need for faculty mentoring of students surfaces repeatedly in the current literature on theological education (Davis, 1998, 487; Gonlag, 1996, 211; Issler, 1996, 219; Kalal, 1999, 61;
Brocious’ (1991) proposal for the reform of Southern Baptist theological education is modeled on Thomas Groome’s “shared praxis” concept. He notes that this approach would change the role of the professor into a more personal one “not unlike a mentor.” Schroeder also suggests that faculty members at today’s Christian colleges and seminaries take a more active role in the spiritual development of their students, urging instructors to consider becoming mentors (1993, 37–38). Matthaei makes the same plea, calling her approach “faith-mentoring.” She maintains that faculty should model the faith and personally guide their theology students in it (1991, 540–549).

Well-known guru of mentoring, Laurent Daloz, urges “educators and spiritual leaders” to mentor students, institutions, and society to maturity. He takes as his guide for this endeavor the United Church of Christ’s “Pronouncement on Church-related Higher Education,” which declares that UCC schools are to help students learn how to use their learning on behalf of others. They assert that “This is best realized ‘in a small community in which there is genuine sense of caring on the part of faculty and administration’” (1989, 73, 79). Parks also believes that only a community context will be adequate for maintaining strong teacher–student relationships in theological education (1990, 357).

Much recent literature emphasizes a nurturing spiritual community as essential to the growth and development of Christian ministers (Banks, 1999, 205; Davis, 1998, 487; Kalal, 1999, 63; McKinney, 1996, 89–92; Mouw, 1998, 465; TenElshof, 1999, 88; Veling, 1999, 420–421). Kemp makes the point that perhaps the most important part of this nurturing network is a student’s “real life” home, church, and community (1999, 4; see also Reissner, 1999, 90).

**Learning Outcomes in Christian Higher Education**

Many attempts have been made to categorize learning outcomes and related concepts in higher education (Seels, 1997). Lenning’s 231-page review presents over 80 models for such categorization published in the United States from 1918 through 1977 (1977). Their foci, complexity, logic, scope, and level of abstraction vary
tremendously (Lenning, 1977, 1). Despite this proliferation of models, only a small number has exerted any influence. Of particular interest to the present study are the three best-known learning domain taxonomies: Bloom’s (1956) cognitive taxonomy, Gagné’s (1985) overall taxonomy (with special emphasis on the cognitive domain), and Krathwohl, Bloom, and Masia’s (1964) affective taxonomy.

Bloom’s overall three-part model of learning outcomes—cognitive, affective, and psychomotor—has become the standard way of looking at the matter (1956, 7). Richmond, Gorham, and McCroskey write: “Bloom’s . . . conceptualization of learning . . . has for several decades been accepted widely as an elegant characterization of the learning construct” (1987). The staying power of this conceptualization is perhaps explained by its deep historical roots:

The German scholar Jegensdorf views Aristotle’s distinction among three categories of human action—thinking, feeling, and handling objects—as a precursor of the threefold division of the educational objectives. . . . Similarly, Lemke likens these three domains to Pestalozzi’s relation of educational activities to three organs of the human body, “the three Hs: head, heart, and hand.” (Lewy & Báthory, 1994, 151)

Bloom’s cognitive taxonomy consists of six major categories of learner behavior: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation (1956, 201–207). These categories (and their subcategories) are arranged in a cumulative hierarchy from simple to complex. The intent is to help teachers in the formulation of behavioral objectives.

The weaknesses of Bloom’s cognitive scheme are not insignificant: the distinctions between categories are not sharp or mutually exclusive, the use of behavioral-specified goals to operationalize educational objectives can be problematic, and the domains cannot, in reality, be separated (Furst, 1994, 29–32; Martin & Briggs, 1986, 72; Tennyson & Nielsen, 1998, 7). Nevertheless, this model continues to exert great influence in the training and practice of teachers around the world (Gronlund, 2000, 28; Kreitzer & Madaus, 1994, 64; Seels, 1997, 16).

Recently, Anderson and Krathwohl edited a revision of Bloom’s Taxonomy that, among other things, rearranges some of the categories, adds a second dimension of four kinds of
knowledge, and eliminates the cumulative hierarchy (2001, 263–268). The revision focuses solely on the cognitive and ignores the affective and psychomotor domains (Anderson & Krathwohl, 2001, 259). It remains to be seen whether the revised taxonomy will replace the original.

Krathwohl, Bloom, and Masia’s corresponding taxonomy of affective learning consists of five major categories: Receiving (Attending), Responding, Valuing, Organization, and Characterization by a Value or Value Complex (1964, 176–185). This taxonomy has been criticized for being too general, dependent on cognition, and limited in scope (Martin & Briggs, 1986, 83). Nevertheless, it has exerted a pervasive influence as the most widely known classification of its kind (Anderson & Krathwohl, 2001, xxi; Martin & Briggs, 1986, 14; Price, 1998, 17; Seels, 1997, 16).

Gagné’s overall model of learning outcomes consists of five-domains—intellectual skills, cognitive strategies, verbal information, motor skills, and attitudes (1985, 47–48). Conceptually, it is virtually the same model as Bloom’s, because, as Martin and Briggs point out, Gagné’s first three domains correlate with Bloom’s cognitive domain, his motor skill domain is a part of Bloom’s psychomotor domain, and his “attitudes” domain is clearly parallel to the affective domain in Bloom’s model (1986, 61).

Much of the appeal of Gagné’s model is its inclusion of additional help for planning instruction in the form of detailed explanations of the conditions of learning and events of instruction. Nevertheless, it has been criticized for being too oriented toward psychologists (Martin & Briggs, 1986, 66).

The literature on models such as those just mentioned is limited because they have to do with learning that is termed **domain-general** (that is, across subject domains). During the 1960s, the prevailing view was that cognition and learning were domain-general, “decomposable into a set of basic information processes that generalized to a wide variety of domains.” But, beginning in the 1970s, cognitive psychologists began to study the differences between novices and experts and to argue that cognition is largely **domain-specific** (Sternberg, 1989, 116). This term means that the structures and processes of cognition (and learning) are considered to be different for different subject domains. Thus, models (such as
Bloom’s Taxonomy) based on a domain-general view of cognition have been considered passé by many researchers in the last two or three decades.

Sternberg reports that the pendulum began to swing back in the 1980s and he argues that the dichotomy is a false one, suggesting that instead of debating it, we should be asking questions such as:

In what ways are representation and processing [of information] domain-general, in what ways are they domain-specific, and how do the two aspects of functioning interact with each other? (1989, 128)

This approach would seem to allow for the continued usefulness of domain-general taxonomies like those by Bloom and Krathwohl, of which the Anderson and Krathwohl revision mentioned above could be a sign.

**Web-Based Survey Research**

In recent years researchers have discovered that the Internet brought with it a number of tantalizing possibilities for gathering data:

It provides access to millions of potential research participants, including populations with special characteristics. ... It permits complex instruments ... And it can be employed quickly, conveniently, and inexpensively. ... (Best, Krueger, Hubbard, & Smith, 2001)

Electronic surveys—especially e-mail and Web-based questionnaires—and various types of combinations with traditional methods have been developed and used with varying degrees of success. An understanding of the Web-based variety is especially relevant to the present research.

Web-based surveys have become prevalent and Manfreda, Batagelj, and Vehovar cite several authors who predict that they will eventually replace telephone surveys and personal interviews (2002). The fact that Web surveys are less expensive and faster than traditional mail and telephone surveys has been well-documented (Cook, Heath, & Thompson, 2000, 822; Klassen &
Jacobs, 2001, 713; Lesser & Newton, 2002; Shannon & Bradshaw, 2002, 185–186; Sheehan & Hoy, 1999; Yun & Trumbo, 2000). Sheehan and Hoy list a number of additional advantages: design flexibility and interactivity, ability to reach large numbers of people, anonymity, minimized interviewer error, and minimized interviewer bias (1999).

Naturally, Web surveys also have potential disadvantages: technical problems (Yun & Trumbo, 2000), sampling and generalizability issues with populations that have Internet access or usage problems (Best et al., 2001, 131–132; Crawford, Couper, & Lamias, 2001, 146; Sheehan & Hoy, 1999), response rates typically lower than traditional mailed surveys (Cook, Heath, & Thompson, 2000, 824–832; Crawford, Couper, & Lamias, 2001, 146; Crawford, McCabe, Couper, & Boyd, 2002; Sills & Song, 2002, 22), and possible security issues (Shannon & Bradshaw, 2002, 180; Sills & Song, 2002, 23).

Some mitigating factors can be mentioned with regard to these potential disadvantages. While it is true that serious technical difficulties have been reported (e.g., Crawford, Couper, & Lamias 2001, 150), no study was found which compared the frequency of technical or logistical problems between the electronic and the traditional survey modes. Sampling noncoverage and concomitant generalizability problems are real for diverse populations, though they are lessening as computer and Internet access and usage becomes more and more universal. As an example of this trend, Forsman and Varedian (2002) report that household Internet penetration ranged from 11% to 68% in the European Union in 2001.

For certain populations in which Internet usage is actually or virtually required, such as university faculty and students, coverage problems are greatly minimized (Crawford, Couper, & Lamias, 2001, 142; Crawford et al., 2002; Dillman, 2000, 356; Forsman & Varedian, 2002; Lesser & Newton, 2002; Sills & Song, 2002, 23). Such groups are also likely to have reliable email address lists (Crawford et al., 2002). This affords the opportunity for a sampling approach called “Saturation Surveying,” in which the researcher “attempts to survey all identifiable targets” (Turner, 1989, 260, cited in Bradley, 1999; see also Sills & Song, 2002, 24). By this means the lack of a reliable sampling frame is overcome.
Shannon and Bradshaw report that, although some researchers using electronic surveys have achieved response rates as good as or better than traditional mail and telephone surveys, most have found electronic survey response rates to be lower (2002, 180). Crawford et al. recently achieved a 63% response rate in a study of students at the University of Michigan, but they were able to offer an unusually attractive incentive beyond the means of most such projects—a $10 gift certificate for every participant, redeemable at the local bookstore (2002). A year earlier, Crawford, Couper, and Lamias reported response rates of 23% and 27% in a two-part study with students from the same school (2001, 152). They also cited two 2000 studies using Web surveys with college students that achieved 27% and 37% response rates. Another study with University of Michigan students achieved a 41% response rate with a Web survey (Couper, Traugott, & Lamias, 2001, cited by Forsman & Varedian, 2002). These results compare well with the research of Ray, Tabor, and Griggs, who found that respondents who had conducted academic Web surveys \( n = 85 \) reported an average response rate of 40.8% (2001). This result is also very close to the 39.6% rate reported by Cook, Heath, and Thompson in their meta-analysis of electronic surveys (2000). In Lesser and Newton’s literature review, 37% is the highest response rate reported for a Web-based survey (2002).

By contrast, acceptable response rates for mailed surveys are higher: Babbie says that 50% is adequate, 60% is good, and 70% is very good (1990, 182). Fowler suggests 70% as a benchmark of acceptability (1993, 144). Cook, Heath, and Thompson note that all field research methods have been affected by increasing nonresponse since the 1950s (2000, 823). They also point out that the accuracy of election polls clearly shows that representativeness is more important than response rate (2000, 821). In the same vein, Dillman asserts that “a low response rate does not necessarily entail nonresponse error” (1991, 228, cited in Sills & Song, 2002, 25).

For Web-based surveys, issues of security are very important. These can be addressed in several ways. First, the security of the hosting server must be assured through the use of firewalls, encryption, and other measures. Survey software companies who host surveys normally offer this kind of protection. Second, requiring a password for entry into the survey site can help screen out
unqualified participants and double submissions, as well as pro-

One way in which Web surveys differ greatly from mailed surveys is in the speed of response. While the typical schedule for mailed surveys prescribes that reminders be sent one week, three weeks, and seven weeks after the initial mailing (Dillman, 1978, 183), experience with Web surveys shows that most people respond during the first few days. Shannon and Bradshaw report that, in their study, it took an average of 9.13 days to receive a survey response by mail, compared to 3.21 days for electronic surveys (2002, 185). Crawford, Couper, and Lamias tested the effect of shortening the waiting period to only two days between the initial invitation and the first reminder, and they found that this approach had a modest positive impact on the speed of the returns and the overall response rate (2001, 154).

Web-based surveys offer fast, cost-effective possibilities for the careful researcher. Couper gives this advice to those considering this promising method:

The rate of technological change is likely to outpace our ability to do sufficient research on every new method prior to adoption. We need to strike a balance between a headlong rush to adopt each new technology at once, and waiting for all the research evidence to accumulate before making the transition. (2002, 19)

References


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