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E-mentoring in schools: a brief review

E-mentoring has several advantages over traditional face to face mentoring, but it also poses unique challenges to relationship development and maintenance.

Mentoring of youth via the Internet appears to be coming increasingly popular in the USA. However, there has been very little written about it from an academic perspective.

Bierema and Merriam (2002) have defined e-mentoring as "a computer mediated, mutually beneficial relationship between a mentor and a protégé which provides learning, advising, encouraging, promoting, and modelling, that is often boundary less, egalitarian, and qualitatively different than face-to-face mentoring" (p. 212).

Although there has been much work on the effectiveness of non-electronic mentoring, less is understood about the dynamics, contexts, or results of e-mentoring.

However, it is clear that many types of computer-mediated communication (CMC), including e-mail, listservs, chat rooms and computer conferencing, have the potential to facilitate the mentoring process.

Although there are many e-mentoring programmes currently in operation, most of the programmes that have had any detailed evaluation information are in the school support area. These programmes are what we would call tele-mentoring, which emphasizes the instrumental more than the developmental form of e-mentoring. Tele-mentoring is used to achieve a curricular goal, whereas e-mentoring tends to focus more on youth development more broadly.

Curriculum-based e-mentoring

An approach that is widely used in US teaching and to support learning in schools is "curriculum-based e-mentoring" in which children are put in touch with an 'outside expert' who can provide intellectual resources, support and guidance on

school-based projects. This form of mentoring is usually one-to-many, though some accounts report one-to-one support patterns growing out of the programme (Harris, Rotenberg & O'Bryan, 1997).

Although the primary justification for choosing the mentor is their expertise in a topic area or subject, these programmes often reflect the hope that contact with the mentor also will provide other elements common to individual face-to-face mentoring such as providing intellectual guidance and an accessible role model.

Programme evaluations

The most thorough recent review of the mentoring literature was carried out by DuBois, Holloway, Valentine and Cooper (2002) who reviewed the evaluations of 55 youth mentoring programmes. No single programme feature or characteristic was responsible for positive outcomes of the programmes, although several practices emerged as moderators of effect size (e.g., ongoing training for mentors, structured activities for mentors and youth, as well as shared expectations for frequency of contact, mechanisms for support and involvement of parents, and monitoring of overall programme implementation).

DuBois et al. also concluded that mentoring programmes can improve psychological and behavioural well-being and reduce potentially risky behaviour in youth (both health-related), but their results indicated a need for programmes to adhere closely to recommended guidelines for effective practice. That is, it's important to remember that the actual form and practice of mentoring will influence whether it's likely to be helpful or not - which is why it's worth trying to learn from successful e-mentoring programmes before plunging in.

Feeling more competent

In a study conducted by Tierney, Grossman and Resch (2000), 1000 young people were either assigned mentors or put on a waiting list for one. Comparing the two groups 18 months later, the children with mentors were 46% less likely to begin using illegal drugs, 27% less likely to begin using alcohol, 53% less likely to skip school, and 33% less likely to hit someone.

Tierney et al. also found that young people with mentors felt more competent about their ability to do well in school, reported more positive relationships with friends and parents, had better attitudes toward school and the future, and had better attitudes toward their family and communities. However, there is little empirical information in the e-mentoring literature about moderators of change, that is, about factors that affect outcomes differently across populations or practices.

Awareness

Awareness of how online communication works is important to understanding the power and pitfalls of e-mentoring. A weakness that Cravens (2003) identified in her review of e-mentoring, was that few coordinators had experience with working with people online. Communication by e-mail is very different from most other forms of interaction. E-mail is primarily text-based, and relatively fast, with participants often geographically distributed. E-mail is asynchronous (i.e., communication and response can come at quite different times); e-mail messages do not have to follow each other sequentially. It lacks the full spectrum of visual and aural information that we are dependent upon (often unconsciously) in face-to-face situations.

Some studies (e.g., Sanchez & Harris, 1996; Bennett et al., 1998) have emphasized the problems caused by limited e-mail access, especially in school-based mentoring.

This is likely to become less of a problem with time, as Internet access, both inside and outside the home, becomes more ubiquitous and cheaper. There are also differing expectations between different users. Experts in Internet communication are proficient in using applications like e-mail frequently and easily. Young students and some teachers may use such media infrequently and have much less accessibility to it in general. Weekly access may be the norm for such groups. Lack of time (or difficulty in making time) appears to be one of the main barriers to effective online communication.

Establishing relationships

The possibility of establishing contact between mentors and mentees at different geographical locations, and to some extent at any time of week or day, will help in establishing relationships and also allow mentees to receive support from mentors who might not otherwise be available to them. It seems that trust and building relationships in e-mentoring, are associated with a number of distinct variables. These are:

- ✓ agreement between the parties about frequency of communication
- ✓ appropriately frequent and full communication
- ✓ social as well as task-based communication
- ✓ some level of self-disclosure
- ✓ interactive rather than purely reactive communications

Formal evaluation

One of the problems with the growing literature on e-mentoring is that there is little in the way of formal evaluation and many writings appear to be informal or reflective (e.g., Price & Chen, 2003; Witte & Wolfe, 2003). Furthermore, what evaluation research there is has concentrated on processes within e-mentoring programmes and the participants' feelings of satisfaction and involvement, rather than on longer-term outcomes like effects on grades, antisocial behaviour, or employment.

Although the particular mechanisms and affordances of electronic communication influence how e-mentoring programmes can best work, we feel that e-mentoring has much to learn from research on more traditional mentoring processes. Research in e-mentoring which parallels face-to-face mentoring research on the effect of factors like ongoing training, structured activities for mentors and mentees, monitoring of the overall programme, and some consideration of parental involvement (which has hardly been considered at all in e-mentoring) would be valuable. Others at all levels of schooling have used e-mail to supplement face-to-face tele-mentoring meetings on specific educational projects such as the writing process (Duin, Lammers, Mason & Graves, 1994) and learning about books (Lesene, 1997).

Bennett et al. (1998) comprehensively

over viewed their three-year experimental project to develop Internet-based e-mentoring environments that linked high school girls on science and technology courses with practicing (female) professionals for ongoing guidance and support.

Satisfactory mentoring

The researchers identified several factors they felt contributed to satisfactory online mentoring relationships for both mentors and students. These include knowing about the mentors' backgrounds, interests and hobbies, and the mentors' use of humour and light-heartedness. There were also a number of very specific strategies that appeared to be critical in the facilitation of online relationships. Students seemed to need to want to feel valued and listened to. Successful mentors gave attention to the student's personal details, and when they gave direct affirmations of support or conveyed their agreement with views the students expressed. Personal information from the mentors, presented in the emails, helped students come to view their mentors as more than just an e-mail address or text on the screen.

Bennett et al. went on to highlight some of the key facilitation skills needed to promote active dialogue. These included:

- ✓ responding to affective as well as pragmatic issues
- ✓ validating and highlighting issues raised by participants
- ✓ offering options for further investigation
- ✓ using a conversational tone
- ✓ inviting other viewpoints and contributions

Good mentors modelled appropriate communication and expected online participation, responding to problems or conflicts that arose among participants, and ensuring that all participants are included in the discussion by directly responding to individuals and calling them by their name.

Furthermore, it has mainly been assumed that e-mentoring mainly follows the one-to-one model of face-to-face mentoring, but electronic systems also allow one-to-many, many-to-one, and networked patterns of mentoring (e.g., listservs, chatrooms and bulletin boards). Such electronic technologies shared by diverse groups of individuals can bring together mentors and novices nationally (or internationally) to discuss shared interests.

Unique challenges

E-mentoring has several advantages over traditional face to face mentoring, but it also poses unique challenges to relationship development and maintenance. It provides flexibility in pace and scheduling. It also transcends physical and geographical boundaries and provides access to individuals who may have previously been unable to access mentoring services.

Because symbols of status are often

unidentified in electronic communication, e-mentoring can be egalitarian and democratic, with students being more comfortable in their own homes or educational environments, and there may be decreased feelings of intimidation and/or discomfort in new environments. It offers easy access to supportive information and resource experts, so that information is just a 'link' away, and has flexible communication methods (e.g., single, multiple, and simultaneous methods such as e-mail, listservs, Usenet, newsgroups, threaded discussions, and/or chatrooms).

Price and Chen (2003) have noted that participants must have access to the Internet and have the basic skills to use the software, equipment, and the Internet. They also point out that e-mentoring programmes can vary because of differences in participation motivation, involvement, and personal characteristics, which may make it difficult to maintain continuous interactions and reflective influences through the duration of the programme. Also, e-mentoring programmes may be difficult to maintain, because they require co-ordination and management (both technical and human), facilitation and planning, and implementation and evaluation.

E-mentoring in school

We would argue that technology-supported mentoring within school settings complements and extends what is achieved by face-to-face mentoring. Electronic mentors can provide feedback on curriculum issues, personalized attention, educational advice and encouragement. However, as Kealy and Mullen (2003) observe, it is unresolved as to whether in-person experience can ever be fully substituted by technology. We believe traditional mentoring is unlikely ever to be replaced. However, new technologies may provide a useful adjunct to the mentoring boundaries.

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