# Mentoring students: A programme approach

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## Abstract

This paper explores the academic staff experiences and perceptions of a mentoring scheme, where all students in the Bachelor of Computing Systems Degree were assigned a mentor. It builds on a previous scheme where students identified as at risk were individually mentored, but was widened to include all students.

Observations are provided from staff involved in the mentoring scheme and modifications to the scheme are suggested.

Problems with assigning mentees and time constraints were identified as significant issues.

*Keywords*:    Computing education, mentoring, learning support.

## 1    Introduction

In 2008 Hagen-Hall and Verhaart reported on a small-scale mentoring scheme undertaken at EIT Hawkes Bay in 2006-7. Due to the initial success the scheme was expanded in 2008 to cover all Bachelor of Computing Systems (BCS) students. This paper discusses the outcomes of the 2008 scheme, compares the outcomes of the two schemes, and suggests principles for mentoring students based on these experiences.

### The 2008 Mentoring Scheme

In the initial scheme a small group of students who were identified as struggling with their coursework were mentored by one faculty member. The mentoring was different for each student, ranging from one to many discussions about issues the student was having, to ongoing coaching over a semester in areas such as test taking skills and time management skills.

In 2008 all Bachelor of Computing Systems students were assigned a member of the teaching staff as a mentor. All staff teaching on the BCS acted as mentors, and students were assigned a mentor by the BCS programme coordinator, with female students being assigned to female staff and male students to male staff. Mentors were asked to contact their students, meet with them to get to know them, and to inform their students that they could change mentors if they wanted to. The BCS programme coordinator asked teaching staff to be aware of any students in their classes who seemed to be struggling, and let the student's mentor know.

This paper presents a review of the 2008 mentoring scheme which seeks to answer the following questions:

1.   what benefits were perceived by staff members, and how do these compare with the initial mentoring scheme;

2.   what about the 2008 mentoring scheme worked and didn't work; and

3.   how should the mentoring scheme be revised in the future to improve its effectiveness?

In order to answer these questions, each staff member involved in the scheme was interviewed using a collection of questions to enable results to be compared and analysed.   The results of these interviews have been summarised and are presented in this paper. Findings from the interviews should be useful to others either looking at introducing a mentoring scheme or those who have implemented a mentoring scheme.

## 2    Literature Review

Learning support can be provided by the teaching staff or by a separate learning skills centre. Skillen, Merten, Trivett, and Percy (1998) found support offered by learning support centres to be generic and limited to remedial "fixing up". Learning skills centres serve only a small proportion of the students' population (Skillen et al., 1998) because few students seek learning support (McInnes, James & McNaught, 1995). Hagen and Verhaart (2008) also identified that there could be a considerable delay in organising a peer tutor through the learning skills centre of about 2 weeks, which is often too late for students with pressing deadlines. Instead Skillen et al. (1998) propose that learning support be integrated with the curriculum, ranging from occasional lectures by learning support staff to credit-bearing study skills courses. While this model is equitable and recognises that all students need to develop learning skills, it does not cater for students who would benefit from individualised attention.

One way to provide individualised support to students is through a mentoring scheme. Although there are many different definitions of mentoring (Hagen & Verhaart, 2008), it can be seen as "the relationship in which an individual with more expertise provides knowledge and information to a less experienced individual" (Peyton, Morton, Perkins, & Dougherty, 2001). Roberts (2000) describes the mentoring role as "a supportive role of overseeing and encouraging reflection and learning within a less experienced and knowledgeable person, so as to facilitate that persons' career and personal development". Field (2001, p.273. cited in Hallam & Gissing, 2002) identified that mentoring is not only useful to the mentees and stated that "mentoring is a natural act in which information professionals should engage. It is part of the ethos of our profession to share knowledge. We are not natural competitors like those within the business world. It is an excellent way for professionals to leverage their expertise and serves as a mechanism to continue their own professional growth ".

Mentoring is common in tertiary education, particularly in health education (see for example Gray & Smith, 2000; Lloyd Jones, Walters & Akehurst, 2001, and Cahill, 1996). Despite a lack of empirical evidence (Jacobi, 1991) there is a general agreement on the effectiveness of mentoring in achieving positive student outcomes (Bond, 1999; Quinn, Muldoon, & Hollingworth, 2002) and retaining students (Talbert, Larke, & Jones, 1999).

However implementing a formal mentoring scheme can have problems. Assigning a mentor is problematic; Zay (1984 cited by Roberts, 2000) argues that the best mentoring relationships exist when both mentor and protégé are allowed to choose each other freely, allowing chemistry and "goodness of fit" between the mentor and mentee. Caruso, as cited by Roberts (2000), suggests that an organisation must instead allow and expect a learner to be mentored by several differing mentors, chosen as the learner sees fit, to satisfy their current requirements.

Hagen and Verhaart (2008) identified a range of factors that contributed to the success of the initial mentoring scheme at EIT Hawkes Bay. Among the most important were an existing rapport with the mentor; the student wanting or seeing a need for help; the mentor being passionate about mentoring; being familiar with the student's workload and class performance; and the mentoring having a wider focus than coursework, as a student's performance is also affected by their personal and home life, planning skills and general life skills. Students in that scheme also noted that they find it hard to ask for help, so mentoring must be non-judgemental and somewhat proactive.

Benefits in the initial scheme included significantly increased marks, increased direction; more effective work in all study areas; improvement in home life; and more comfort approaching other lecturers for help (Hagen & Verhaart, 2008).

## 3 Methodology

In order to provide a basis for this research, faculty members involved in the mentoring scheme and the programme coordinator were interviewed in a series of semi-formal individual interviews. To facilitate the interviews a set of open questions were developed that allowed for personal, anecdotal and reflective responses. A copy of the questions is included in Appendix A. Interview questions were pre-tested for face validity, and ethical approval was obtained from the researchers' Institute. To ensure consistency all of the interviews were carried out by one of the researchers, and written up with any comments that could identify the staff member or students anonymised. All 8 staff members involved in the mentoring scheme were interviewed and the responses were forwarded to the second researcher for analysis.

Limitations of this study include the small sample size, and restricting the interviews to academic staff mentors only. A fuller picture of the mentoring scheme would benefit from insights from students involved in the scheme, and this is proposed as part of a future study.

## 4 FINDINGS

### 4.1 About the Mentoring Scheme

Mentors were consistent in their understanding of their role, describing it as "pastoral care", "keeping an eye on [mentees]", "support", "guidance", "encouragement". Two also noted that it was to prevent students dropping out.

Most mentors established contact by emailing mentees, then arranging appointments. Several mentioned that it was difficult to contact those not in their class. One mentor identified the classes their mentees were in and approached them in those classes or phoned them.

Interaction with mentees was different across different mentors. Responses included:

- "Sat and spoke to them and followed up when I next saw them in class."

- "Tried to talk to them individually at least once every two weeks and stop when I saw them on campus for a quick chat. Some of them did come and see me on a regular basis for advice."

- "Just general in-class interaction, and the occasional informal chat after or outside class times"

- "Talked as I saw them around campus."

- "Met when student asked for a chat. Did little real proactive support."

- "Tail end of classes. Integrated with my teaching (there is usually a 10 minute gap at the end of class for student questions)"

## 4.2 Benefits and disadvantages of the 2008 mentoring scheme

Two mentors felt that there were no actual benefits to the scheme as implemented, and noted that we lost more students than ever. Other mentors identified the following benefits for the students:

- "someone to talk to if they have problems that are interfering with their studies"

- "possibly a bit more a sense of being part of the school"

- "knowledge that there was assistance available if they needed it"

- "kept them going, encouragement", and

- "personalised guidance".

The benefits to the mentor identified were that they became a better teacher through mentoring, as identified by Field (2001, p273. cited in Hallam & Gissing, 2002), built an affinity with their students and got to know them better, although one mentor noted they probably would have built a relationship with the students even if they weren't mentoring them.

Benefits to EIT identified were that they might better keep students, and one mentor felt that there were one or two students who might otherwise have dropped out. However it was also noted that the school lost more students than even during this period. A further comment was that the School of Computing would be seen as responsive.

Most mentors felt that there were no disadvantages to students. Two possible disadvantages noted were that students might resent mentoring and feel the mentor was interfering, might not have wanted mentoring, and also that students may have crossed the line during a discussion and regretted telling the staff member later.

All respondents noted the time required as a disadvantage to staff. Other disadvantages to staff were:

- It "can be seen as just another compliance thing, just another job"

- One mentor identified "determining professional boundaries" was a disadvantage, noting that they "did not really want to know about problems with boy/girl friends".

## 4.3 Efficacy of the 2008 mentoring scheme

Several mentors commented that they had reasonable contact with about half their mentees, and built a good rapport with them, because they were currently in their classes or had previously been. They found 1-on-1 discussions worked well and that students appeared to have more confidence to approach their mentors to ask for help. However, most respondents felt that the scheme was not effective, for a variety of reasons.

Most respondents felt that the assignment of mentees was not effective because most mentors had some mentees they didn't know and didn't have in their classes. Several mentors said that it was difficult to meet with students they didn't teach, many of whom never responded to emails or phone calls. One comment was that it was "difficult to establish a feeling of safeness" for those students they didn't know, and several felt that it was difficult to establish a relationship with students they didn't know.

Several mentors felt that the student introduction to the scheme was insufficient. Many felt that the scheme didn't work because there was no structure, no formal or established system, and mentoring was not enforced or followed up.

Mentors tried to build relationships with mentees they knew by talking to them informally during class or in the hallway. Most said that they did not build relationship with all mentees as some they never managed to meet or did not make the effort to meet. Several said that contact dropped off as they got busy.

Most mentors did not maintain contact with the students who were not in their classes, due to difficulties contacting them, students not responding, and lack of time. Several commented that mentoring "fell by the wayside" when they got busy, and this was not corrected by encouragement to contact mentees by management etc. One felt there was little buy-in from both staff and students. One mentor reported on a student that felt the mentor did not really want to see them, and another student felt the tutor should be available when they needed them. Another mentor commented that one of their mentees dropped out without them knowing; other lecturers were meant to tell mentors if they knew of a problem, but this didn't happen.

Although mentors felt that they built a successful relationship with some mentees, particularly those in the classes, they reported that a few of their mentees still email or contact them for advice, or stop for a chat on campus, and none have regular ongoing contact with their mentees.

## 4.4 Suggestions for the future

Mentors made the following suggestions for improvement:

- Initiating mentor scheme
  - A more formal introduction/explanation to students

- Choosing mentors/mentees
  - Having mentees that are known to the mentor, or with whom the mentor has a previous relationship, or are going to be in the mentor's class
  - Having mentees that are in the mentor's class, to make regular contact easier
  - For new students (Year 1, and diplomas) assign to people who teach them. After 1 term let them shift if they would like to change to someone else. (default is to change and make it really easy to change)

- o Let students choose mentors.
- Organising meetings/contact
  - o The first meeting is really important and needs to take some time.
  - o Tasks for the mentors to do
  - o Having a reason to meet the mentee
  - o Better organisation and more formal systems. Needs to be structured
  - o Having a space that allows students to drop in casually: lecturers are "hidden" behind a reception area.
  - o Mentors be willing to provide practical study skills tutoring for students struggling with this - e.g. test taking skills for a student who always fails a test.
  - o Have a specific purpose for the mentoring, and a start and end. Not just an 'open door' - which is 1 form, and ok, but also set up formal tutoring for students lacking specific skills.
  - o Mentoring needs to provide practical 1-1 skills where needed and on time.
  - o Students need individual resources.
- Support and Training
  - o Training for mentors (tutors)
  - o Get feedback from staff more regularly and formally so mentors can follow up struggling students
  - o All mentors have same agreement/expectations about what they will do, and someone follow up that the contact is happening
  - o More training/advice/support for mentors on what we can do and how we can do it. What is involved in mentoring?
  - o Could have regular mentor meetings (1 per term?)
  - o Co-ordinate what we provide
  - o Post a review of what has happened.
  - o Share support.

## 5  DISCUSSION

All responses were remarkably consistent. It is clear that generally the mentors believed the aim to be worthwhile, but felt that the way it was implemented did not work. Certainly the 2008 scheme did not provide the benefits from the initial scheme described by Hagen and Verhaart (2008). The main features of the two schemes are compared in Table 1.

**Table 1: Main features of the two mentoring schemes**

| Initial Scheme | 2008 Scheme |
|---|---|
| Informal, and perceived by the students as the mentor "just offering to help out" | Formal |
| Involved selected students who were identified as struggling | Involved all students |
| Involved one mentor, who volunteered for the role and wanted to spend time mentoring. | Involved all staff teaching on the BCS degree |
| The mentor agreed to mentor each of the students, and could have declined if they didn't want to | The students were assigned to the mentor by the BCS programme coordinator |
| The mentor already knew, taught and had some rapport with the students | The teaching staff had not taught all their "mentees" and did not know all of them. They therefore did not already have a rapport with all of their students and additionally did not necessarily like their students, and the students did not necessarily like their mentor |
| The mentor had only a few students to manage at once | The mentor had about 15 students to manage at once, although not all required or wanted much contact with their mentor |
| The mentees wanted or felt the need for mentoring | Mentees did not necessarily want or feel a need for mentoring |
| The mentor felt that the mentoring would benefit each of the students mentored | The mentors felt that some students would not want nor benefit from mentoring, although some might |
| The mentoring was for a specific purpose | The mentoring was general, as needed |
| The mentoring was for a finite time; it ended when not needed | The mentoring was ongoing |
| The initial approach to students was seen by students as a person who cared and was willing to help | The initial approach was seen by student as an institutional duty? |
| mentor was responsible for mentoring, so no central coordinator was needed. | Mentors were responsible for individual mentoring. |

In accordance with Hagen and Verhaart's (2008) findings that an existing rapport was important, the mentors had difficulty contacting or building a relationship with students they did not already know who were not in their classes. This suggests that it would be better to let students have a say in who their mentor is, and to give mentors the ability to decline to mentor someone they don't feel a particular rapport with. This is highlighted by one mentor's comment that "I don't believe that being assigned students who were not in any of a lecturer's classes or who had never been in one of a lecturer's classes was really appropriate. For any sort of meaningful

relationship to develop I think that students' should at least be slightly familiar with a lecturer".

Apart from a few exceptions, there seems to have been a lack of buy-in from both staff and students; staff due to time commitments and students possibly due to a lack of perceived value or need. It did seem that all staff involved wanted to spend time mentoring, as they have all volunteered to be part of a revised mentoring scheme in 2009. In one instance a comment was made that "I didn't like some of my mentees so I made no extra effort to contact them after a small effort. The feeling was probably mutual.", another responses indicated that a "student felt that the mentor did not really want to see them". Hagen and Verhaart (2008) posited that mentoring might need to be for a specific purpose to be perceived as valuable; in the 2008 scheme the mentoring was for general support and guidance rather than to help specifically-identified students with a specific issue. Because the mentors saw their role as support rather than tutoring, even when a specific coaching need was identified no personal coaching was given. Although students were pointed to the Learning Skills Centre on campus, as noted previously it did not seem to provide effective help to the student. It is too simplistic to suggest that mentors simply need to take more responsibility for following up their students; instead it may be valuable for the mentors to decide as a group what their role should be, and how additional support outside this is best provided once the need is identified. One of Hagen and Verhaart's (2008) respondents commented that mentoring by the faculty was important because they understood the course load, what assignments were coming up and what skills were needed, and so could give specific help or guidance, rather than waiting for the student to recognise an issue. It may be that the proactive use of this "insider knowledge", and their ability to teach skills needed such as study skills, is an area in which the mentors can effectively support their students where support people outside the faculty, such as staff at the Learning Skills Centre or outside counsellors, can't. One respondent suggested having more than one form of mentoring - the "open door" mentoring provided in the 2008 scheme were students can come to ask for help, combined with the tutoring and coaching from the initial scheme where students are identified as lacking specific skills such as study skills or planning skills. This idea certainly has appeal.

Hagen and Verhaart (2008) also suggested that a factor for success was that the mentoring had a definite end when it was no longer needed. In the 2008 scheme the mentoring was ongoing; it is suggested that this may have contributed to the lack of perceived need.

Although both schemes were unstructured, in the initial scheme the mentor created a structure around each student's individual needs. With a group of mentors it seems that the lack of structure was more of a problem; mentors realised that they should do roughly the same thing as each other, but as nothing specific had been agreed on this led to not doing much unless a specific problem was identified. Their responses to this study clearly suggest that they would welcome more structure

and more decision about what their role should be and what they should do, for example, "no-one coordinated the mentoring or followed up to make sure mentors were doing what they should - it might have made it more urgent". While this does not necessitate a scheme coordinator, it may be valuable to have one person with the main responsibility of the scheme to "drive" the scheme and facilitate coordination between the mentors. This could avoid issues such as "one student dropped out and no-one told me she was struggling until she had dropped out, so I couldn't help".

However, this is not to say that the 2008 scheme did not provide benefits. Certainly the fact that all students had a mentor was an advantage over the initial mentoring scheme; although some students didn't need mentoring, some who had issues were identified much earlier than would they had been previously and were able to be helped. Having a group of mentors rather than one allowed for a range of ideas about how to mentor and how to help struggling students.

## 5.1    Improvements to the 2008 scheme

In light of the findings of this study, the comparison with the initial scheme, and the success factors identified in the literature, the following improvements should be considered:

- o    In line with the literature as well as the feedback from mentors, assign mentors who have a previous relationship with students where possible.

- o    Consider assigning mentors who teach the mentees – at least for students not yet known to any mentors.

- o    As identified previously (Hagen & Verhaart, 2008) and feedback from the mentors, establish a purpose for meetings with mentees

- o    Have a training and a structure in place so that mentors know what they should do, and follow up to make sure they're doing it

- o    Have a scheme coordinator to "drive" the scheme and facilitate coordination between mentors

- o    Consider either widening the scope to include personal coaching where needed, or have the mentors be more proactive about making sure that coaching happens and is effective, if it is to be provided by someone else.

It is also suggested that the following recommendation from Hagen and Verhaart (2008) be considered:

- o    Consider discussing mentoring needs with the students to tailor the mentoring provided; some may not need any, and some may benefit that they would like more help than is initially offered.

# 6 Conclusion

The mentoring scheme as implemented in 2008 proved not to be as successful as expected. This paper interviewed staff involved with the mentoring scheme to seek answers to three questions.

The first was "what benefits were perceived by staff members, and how do these compare with the initial mentoring scheme". In some instances staff felt there was no benefit to them, but all acknowledged that for students it would give them "someone to talk to if problems that are interfering with their studies" and for EIT it probably helped student retention. In the initial scheme the students (the mentees) identified three things that made it work (Hagen & Verhaart, 2008): mentoring was a personal thing, and what worked for them might not work for others, but felt it would be beneficial to all students; mentees had to make an effort; and personal connection was important. In the mentoring scheme described in this research it was suggested that there was not the "buy-in" from staff or students, which was an important criteria identified in the initial scheme. The allocation of students that were not known to the staff also was a significant issue particularly where the mentoring was not considered to be successful. In the initial scheme the mentor also identified that one hour per week was required per student mentored, but with the small number of students this was manageable. In the current scheme many mentors attributed workload issues as a problem managing their contact with their mentees.

The second question "what about the 2008 mentoring scheme worked and didn't work". Overall, the mentoring scheme received a negative response, particularly in light of having mentees assigned and a lack of structure and purpose. Mentor training was also identified as an important component that would help in the success of a mentoring scheme.

Finally, "how should the mentoring scheme be revised in the future to improve its effectiveness"? Four areas were identified with suggestions for improvement. Providing good initial background to students and staff should improve the "buy in" by participants, allowing mentees to choose their mentors and change easily, providing a clear structure for contact and good feedback channels, and providing training in the role of mentor and good support structures.

And a final comment from one of the mentors "I think/hope that some of my motivation for mentoring (informal & formal) comes from a Christian perspective where you are mindful of students who cross your path for a reason and you can show some kindness to them - and that is in fact one of the reasons you have actually chosen teaching as a profession. So I think a mentoring mindset can permeate just about all our teaching duties"

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## Acknowledgements

## Appendix A.

School of Computing – Review of 2008 Mentoring Scheme

We would really appreciate a little of your time to help out with an interview. If you are willing could you respond to the questions below, and I will arrange for a time when I can do a short interview.

Your responses will be anonymous with comments aggregated and summarised.

Many thanks

### Part A. About the Mentoring Scheme

A1. What was your understanding of the mentoring system and your role?

A2. How did you establish contact with your mentees?

A3. What interaction did you have with them? Why?

### Part B. Benefits and Disadvantages

B1. What were the benefits of the mentoring to: students, staff, EIT, others?

B2. What were the disadvantages to: students, staff, EIT, others?

### Part C. Detailed questions

C1. What about the mentoring scheme worked and why? e.g.

* Assignment of mentees

* Student introduction to scheme

* Establishment of contact: 1-1, mentor and mentee

* Contact 1:1 mentor and mentee

C2. What about the scheme didn't work and why?

C3. What proportion of your mentees were known to you? For those students known to you, how were they known (e.g. in pervious classes, in current class, etc)

C4. Did you try to build a relationship with your mentees, and if so, how, if not, why not?

C5. Do you still have contact with your mentees?

C6. Do you feel that you built a successful relationship with your mentees?

C7. Suggestions for the future.