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## **Developing models for online academic advising: functions, tools and organisation of the advising system in a virtual university**

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**Abstract:** Academic advising is a key element for learning success in virtual environments that has received little attention from researchers. Since academic advising can contribute to improve the satisfaction and retention of online students, research on this activity is especially needed in the current situation of competition among online universities. This paper describes the online academic advising system in a virtual university, as a contribution to the development of viable models for this activity. We explain the background of the advising system and its main elements: the advisor's functions, the types of advisors, the available tools for advisors, the organisation of the advisorial system, and the advisorial activity from the student's point of view.

**Keywords:** academic advising; online education; virtual university; virtual advisors; educational management.

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## **1 Introduction**

Student support services in e-learning settings can be defined as “the range of services both for individuals and for students in groups which complement the course materials or learning resources that are uniform for all learners, and which are often perceived as the major offering of institutions using open and distance learning” [Tait, (2000), p.289]. From a less materials-centred point of view, Thorpe (2002, p.108) defines learner support as “all those elements capable of responding to a known learner or group of learners, before, during and after the learning process”. In both definitions, there is a stress in the student as the centre of the support activity, with personalisation as its main feature.

According to Thorpe (2002, p.289) learners need support within two contexts:

- 1 “The course they are studying, such as how best to complete a particular assignment, how to contact and work with other students on the course, how to make sense of something in the course materials, whether their contributions to the course conference are relevant, well conceived or otherwise, and so on”. This context refers to the central activity of learning, the one that is thought as the core in any educational institution.
- 2 “Institutional systems (such as knowing what is on offer, how to apply, how to claim a refund, make a payment, choose a course, etc) before, during and after course study”. Although Thorpe poses this context as homogeneous, it combines two distinct groups of activities: the most technical and bureaucratic (the process of applying, paying, or claiming a refund), and a second group that requires academic knowledge of the programme in which the student is enrolled (knowing what is on offer, choosing courses...). The first group is linked to administration services, while academic advisors or counsellors usually perform the second.

Nowadays there is extensive literature available on course-specific support in online settings. Numerous studies have been published on teaching methodologies, evaluation systems, teacher-student and student-student relationships in the virtual classroom, and so on. Regarding the institutional context, administration services fall far from research on learning and education, but academic advising is indeed a key element for learning success in virtual environments that has received little attention from researchers (see, for exceptions: Dahl, 2004; Luna and Medina, 2005; Morris and Miller, 2007; Patterson Lorenzetti, 2004; Pevoto, 2000).

In this paper, we will use the term *academic advising* to refer to the support that learners receive with regard to their operation within the programme context. In this context, students need support to understand the virtual environment where they will be immersed in for the following semesters, to plan their attainment goals and their

academic itinerary, to select the subjects they will study each semester, to select extra-academic activities that can improve their learning experience, etc.

Since academic advising can contribute to improve the satisfaction and retention of online students (Smith et al., 2006; Tait, 2003; Torres and Hernandez, 2009–2010), research on this activity is especially needed in the current situation of competition among online universities. This paper contributes to fill this gap, by describing the online academic advising system in a virtual university. It is intended that, through the study of this particular case, other institutions will be able to derive useful insights for their implementation or refinement of their online academic advising system.

The remainder of the paper is organised as follows. Section 2 presents the UOC and the main traits of its students. Section 3 summarises the functions of the academic advisors at the UOC. Sections 4 and 5 present the organisation of this activity. Section 6 describes the tools available to online advisors. Finally, Section 7 offers some concluding remarks.

## 2 The UOC and its students

The Open University of Catalonia (in Catalan: Universitat Oberta de Catalunya, UOC) was created in 1995 by the Catalan Government (Spain), and it had 41.763 enrolled students in the 2009–2010 course. This university was founded with the intention of appropriately responding to the educational needs of people committed to lifelong learning, and to make maximum use of the potential offered by the information technologies to complete an educational activity.

The most common characteristic of UOC students is the fact that they combine working with studying (93% of all UOC students are in employment). Otherwise, the profile of the UOC student is quite heterogeneous. Student ages range from 18 to 70, even though more than two thirds of all students are between 25 and 40 years old. Time dedicated to study varies according to subjects taken each semester (from full time dedication to as little as one subject per semester). Many UOC students left education on completing secondary school in order to enter the workforce and returned to education some years later to study for a university degree.

The UOC's educational model is the university's main feature that distinguishes it since its creation, with the learning activity as the central figure of such model. The students have three main elements with which to complete their learning activity: the resources, collaboration and accompaniment.

- The resources: They include the content, spaces and tools necessary to carry out the learning activities and their assessment.
- Collaboration: This is understood as the set of communicative and participative dynamics that favour the combined building of knowledge among classmates and teachers, through teamwork to solve problems, develop projects and group product creation.
- Accompaniment: This is the group of actions carried out by teaching staff to monitor students and to give them support in planning their work, in resolving activities, in assessment and in making decisions. At the same time, the students receive

personalised treatment from teacher accompaniment; they enjoy continuous guidance during their academic path and establish relations and communication with the educational community.

The model is also flexible because it is open to the implementation of a very diverse range of learning activities in accordance with the competences developed in the course, the area of knowledge or the specialisation level that the learner is studying. This means that the dynamics and resources also need to be very diverse, heterogeneous and adaptable to a large scope of learning needs and situations. In this regard, the UOC is committed to providing the learning activity of the student with the most advanced technological and communication elements.

All of these elements combine and become interrelated in the virtual campus. The life of the university community takes place in the Campus, and this community is made up of students, teachers, researchers, collaborators and administrators. The virtual campus encompasses the support and learning area, where the student accesses resources and can interact with the university community.

Two types of systems develop the support function:

- The attention service, which includes the technology support service and the inquiry helpdesk. The first helps students with their difficulties regarding hardware and software, while the inquiry helpdesk is responsible for resolving any academic or administrative questions. This system gives support within the institutional context, in Thorpe's (2002) terms, specifically in what we have called technical and administration support.
- The virtual teachers, who are specialised staff who guide, give advice and support, and dynamise the whole educational process. This system refers, then, to Thorpe's course context, and also to the academic advising segment of institutional support. According to this duality, personal support to students is divided into two roles: the *subject tutors*, who ensure progress in each subject, and the academic advisors, who guide the students through their learning process in a personalised way. The *advisors* are specialised in academic and professional orientation, and have deep knowledge of one study programme as a whole.

### **3 Functions of the academic advisor at the UOC**

The advisorial role at the UOC is played by a group of professionals who collaborate with the university in a part-time, virtual mode. They are mostly teachers in other institutions, although there are also professionals in an area related to their programme and, with increasing frequency, they are alumni of the same programme.

Academic advisors' task is to accompany each student throughout their academic life in the university, from the moment s/he shows some interest in enrolling in a programme until s/he receives her/his diploma. This includes the following functions:

- to enable each student to select the most appropriate learning itinerary, according to his/her needs, educational goals, and time availability
- to facilitate that students get the most out of their time and money investments

- to encourage the students to follow the selected educational itinerary
- to be a person of reference for students in their relationship with the university.

### 3.1 *Advising on itinerary selection*

To ensure that students select an itinerary that is consistent with their needs and learning objectives, a core activity of the advisor is to know, firstly, which are their advisees' competencies at each point in time and, secondly, which are the characteristics of the programme and educational offer, as a whole.

Once the itinerary is selected, helping each student decide their rate of progression in their own learning itinerary is a key task of advisors. This pace is marked by the learner's actual availability of time for studying (considering his/her other obligations, and personal and professional responsibilities) and the dedication required by each of the subjects of the selected itinerary. In this way, the student obtains the best result of his/her investment in training. This support also helps achieving the efficiency goal set by quality evaluation agencies, such as ANECA, the Spanish National Agency for Quality Evaluation and Accreditation.

This advisory role is embodied in the enrolment process. In this process, after receiving guidance from the advisor, the student makes an enrolment proposal that the advisor must finally assess.

### 3.2 *Enhancing students' investments*

The profile of the UOC students implies that they are particularly interested in getting the most out of their limited time available for formation. At this point, the advisor's role is again key, helping the student to get the most out of his/her dedication to study. This function is even more important because learning is developed in an online context. Thus, the advisor encourages the student to integrate quickly in the dynamics of a virtual university programme. The advisor provides training and/or advice on:

- technological aspects: functionality of the technological platform, the basics needed to operate in virtual classrooms, the technological resources for learning (such as audio blogs and Wikis), etc.
- administrative aspects: procedures needed, time and process of enrolment, assessment of prior studies, selection of the location for the presential final examination, etc., as well as the channels that students have at their disposal for the resolution of doubts, enquires, or complaints, among other things
- pedagogical characteristics of the methodological model of the university
- rights and duties of the student.

Furthermore, the advisor provides advice on how to optimally plan and manage study time in general. This function is complemented especially with and the next one, namely motivation. Both contribute significantly to increased rates of student performance, i.e.: the successful completion of the different subjects of the programme.

### *3.3 Motivation*

In addition to improving the selection of an optimal learning itinerary for each student, the advisor plays a key role in encouraging the further following of such itinerary. This function acquires special prominence because the risk of drop out is potentially high, given the profile of students and the virtual setting. Firstly, from a collective point of view advisors present or frame the learning environment for students. According to Ruth (2008, p.136) such framing “sets the boundaries for what is possible and allowable within the learning environment”. This author found that extensive positive framing had a positive effect on the student engagement in an online learning environment.

Secondly, at an individual level, the advisor disposes of information about the academic behaviour of students (their number of connections to the virtual campus, their qualifications in the activities of continuous assessment, etc.). With this personalised information, the advisor can motivate each student in moments of discouragement or unforeseen difficulties. This global aim of advisors to encourage and motivate learning is complemented with the task undertaken by the tutors in the context of each subject.

### *3.4 Reference person*

The advisor is a reference for students in their relationship with the university, during all the time they are enrolled in a programme. In this sense, the advisor is the person the student contacts with if he/she faces doubts, incidents or unexpected problems, special personal circumstances, and so on. The advisor must solve these problems directly if possible, or refer the student to the adequate service or person in the university. This helps to customise the service and to increase the loyalty of the student with the particular programme, and the university in general.

## **4 Organisation of the advisorial system**

As Wagner (2001) highlights: “advisement is not simply the process of selecting classes each academic term, but in fact, when done well, involves many people and departments on campus working as a team”. This is the case at the UOC, where academic advisors have a double internal dependency, which creates a matrix structure. On the one hand, they organically depend on the programme director. The director selects them, appraises their performance and decides on their continuation. He/she provides training and advice and resolves questions on everything related to the academic aspects of the programme.

On the other hand, the advisors functionally depend on the advisorial function team, which is transversal to the entire university. This team is responsible for providing training and assistance necessary for advisors so that they can, in turn, train students to take full advantage of their effort. Subsequently, the advisorial function monitors such training given by advisors. Similarly, this team offers suggestions and monitors advisors’ activity in relation to student motivation and university procedures.

The work of the advisors, in collaboration with and dependence on the programme director and the advisorial function person, is mostly carried out virtually. Face to face meetings only take place in few cases, as part of advisors initial training (three hours) and a half-yearly meeting between the programme director and all the advisors of the

programme. The aim of such meetings is to assess the development of the course and establish guidelines for the future. Some semesters, the advisorial function also convokes or participates in a face-to-face meeting with advisors from the various programmes.

According to the matrix structure, advisors have two workspaces in the virtual campus. In the first one, communication flows between the programme director and the advisors. Throughout the semester, the director helps advisors with all possible educational problems that may arise. At the same time, advisors comment upon any significant information they obtain from students. This information is extremely useful for the programme director, who may use it to detect problems and plan improvements.

In the other virtual room, the advisors communicate with the member of the advisorial function assigned to a group of programmes as well as with the other advisors of those related programmes. Obviously, every advisor has also a personal e-mail and can contact directly with the programme director and the assigned member of the advisorial Team.

Finally, it is relevant to know that the advisors' retribution partially depends on the number of students enrolled, the rate of student retention and of student graduation. This reward system is designed to stimulate advisors focus on student retention as well as academic attainment.

## **5 The advisorial activity from the student point of view**

Each student is assigned to an advisor from the moment he/she expresses some interest in enrolling in the university. The advisorial activity is developed in both a group (through a virtual classroom) and an individual (using e-mail) setting. An advisor and around 75 students of the programme share the virtual classroom. The activity of the advisor is proactive (teaching on the various aspects outlined above, informing about the terms and conditions for different procedures and, above all, encouraging students) and also reactive when needed. In reactive communications, the advisor has a compromise to answer students' questions in up to 48 hours. The programme director and the advisorial function team can monitor these activities in the classroom. Every semester, students can meet in person with their advisors and, if extraordinary circumstances suggest it, advisors can telephone their students.

In 2004, the UOC grouped the advisors according to the stage of advancement of their students. This reorganisation was aimed to reduce student dropout in the first three semesters of enrolment, as internal studies had signalled this period as critical for student retention. This idea has recently been confirmed by research on first year students' expectations and experiences (Brinkworth et al., 2009). Thus, the incorporation, the beginnings and the continuation advisor roles were introduced.

**Incorporation advisor:** Before the student has enrolled in the university, the incorporation advisor offers information related to general aspects of the programme and the university. This advisor helps the student to decide if the programme is appropriate for him/her and to select which subjects to study first.

- **Beginnings advisor:** The beginnings advisor receives new students after they have enrolled, academically orients them in all aspects of the educational programme, and helps them in developing skills to navigate with maximum efficiency through the virtual campus. The advisor also introduces the student to the tools and resources

provided by the UOC's learning environment, so that they can attain, as soon as possible, their maximum performance. Finally, this type of advisor helps the student to know the range of opportunities that the university offers. In short, the beginnings advisor facilitates the integration of new students to the university community in a personalised way.

- Continuation advisor: After the students' third semester, a continuation advisor is assigned, instead of the beginnings advisor. The continuation advisor focuses gives advice on any academic issue of the educational process, and on professional aspects linked to the field of study. This advisor also helps students deal with their needs in different academic moments. Finally, the continuation advisor gives advise on the further education strategy of the student, as part of his/her professional career.

However, this specialisation is open to debate today within the university, as it has generated a number of disadvantages that have to be balanced with the benefits initially detected. The advantages of the model are basically derived from specialisation of beginnings advisors tutors in their welcome role. Thus, they have a deeper understanding of the needs of new students and how to fulfil them. The main drawback of this new model is the loss of a unique reference for the student. Students have several advisors throughout their studies, so they lose the trust they had built with their first advisor and have to start the process all over again with the new advisor.

Furthermore, in the process of transfer from the beginnings to the continuation advisor, relevant information about the student can be lost. To minimise this problem, the beginnings advisor is asked to write a report about each student's academic progress, including other information that can have an effect on such progress, and transfer it to the assigned continuation advisor.

Another motivational effect is related to the composition of the advisee group. Before specialisation, in a single advising room there were students who had attained diverse levels of progress courses within the programme. Thus, those who incorporated into the group could learn from other peer who had already spent more time in the programme. The more experienced students progressively obtained their degrees and left the group, which had an important motivational effect for new students, who saw that it was possible to overcome the initial difficulties they were experiencing.

This new organisation has also involved substantial accumulation of work for advisors, as all their advisees are in a similar phase of progression within the programme. In addition, administrative complications arise in the reallocation of students.

## **6 Tools for online academic advising**

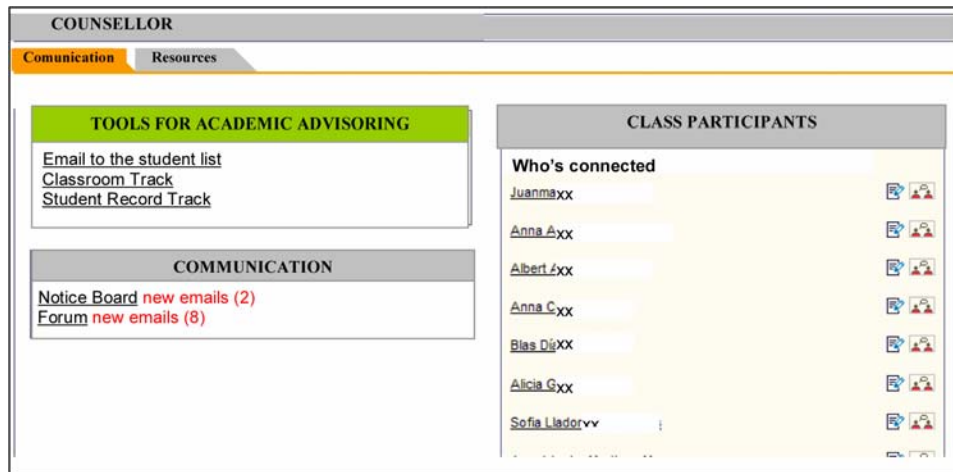
The tools available to advisors depend on the type of student (first-time students or advanced students) and the period of the semester (the initial weeks or the following weeks).

Students that are interested in registering for the first time in the UOC, are incorporated into a welcome room some weeks before the start of the course, to which an incorporation advisor is assigned. The main resources the advisor has in the welcome period are the following: the Virtual Room with a notice board a forum, a mailing list of students and a questionnaire completed by students (see Figure 1).



- All the students in a room have access to the notice board, but only the advisor may post messages concerning academic procedures, general information about the university, deadlines and key dates, and so on. The forum is a more informal space where students and the advisor alike may exchange information, post messages, hints, ideas, suggestions, etc. It is also the place where each student introduces oneself, with the aim of creating a feeling of community right from the start.
- A mandatory questionnaire provides information about each student, such as their available time, their work, aims, expectations... This information is used to assess the enrolment proposal made by each student, and to ensure that such enrolment is tailored to their needs and possibilities. This step is really important because inadequate enrolment may result in poor academic progress, which discourages students and it may cause them to leave the programme. Academic advisors have this information available at any time along the student's university career.

**Figure 1** Image of the advisor room (advisor's view) (see online version for colours)



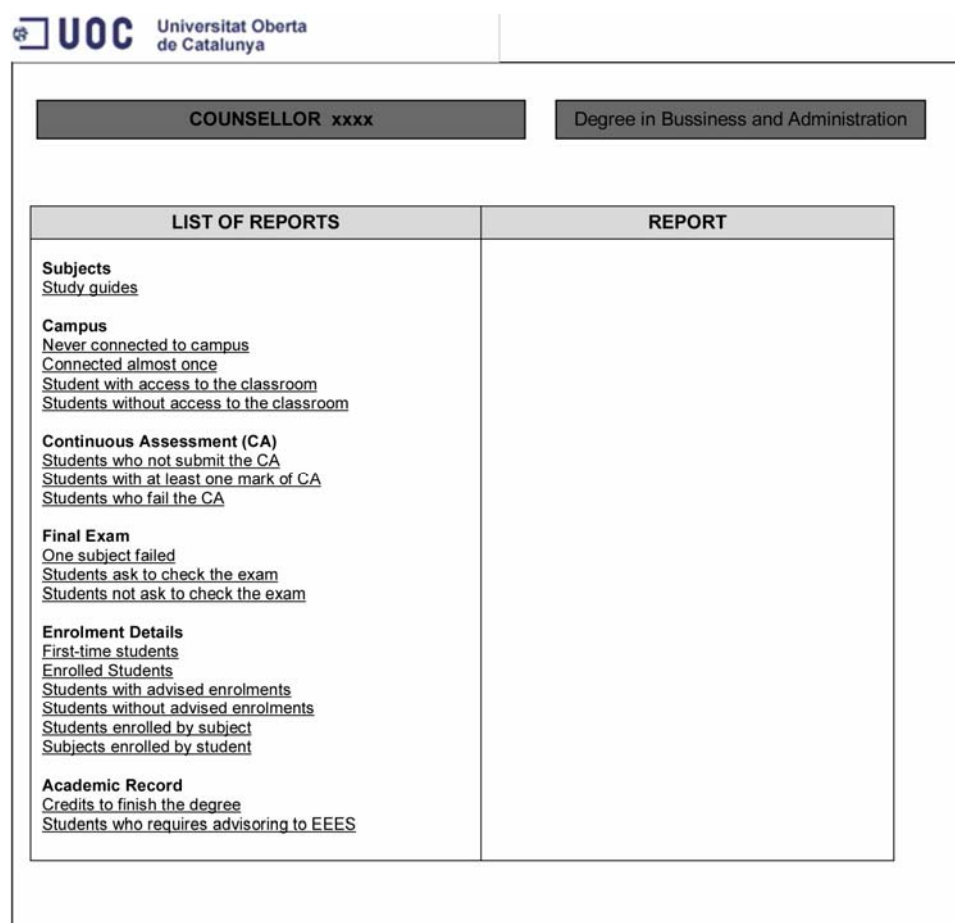
When students are effectively enrolled in a programme, the tools used by the beginnings and continuation advisors vary along the semester.

Some days before the start of the courses, the academic advisors have access to all the subject classrooms in order to provide students with the necessary information in case they have any problem. The information about each subject study guide, learning resources and activities is available in the virtual campus. Once the course has begun, if there is any problem that has not been solved by the established procedures, the academic advisor can contact the advisorial function or the programme director to find a solution.

During the first month of the semester, approximately, academic advisors are encouraged to make use of many available reports about their students, in order to detect critical situations which may affect the proper development of the course. For example, a list of students with and without access to the classrooms, students' frequency of logging in the Campus, a list of students who have never logged in and who have logged in only once, etc.

From the second month to the end of the semester, the university provides advisors with different information related to the assessment process. The most important reports along the semester are: students who have not submitted any activity, students who have only submitted one activity, and the students who have failed any activity. Reports provided at the end of the semester are: students who didn't pass the final exam, those who asked for a revision of their grades, and the list of students who have not attended the final exams. Figure 2 illustrates all the available reports.

**Figure 2** Reports used by the advisors (see online version for colours)



It must be noted here that, although the university provides many reports to advisors, their goal is not to act as the police with students, but to offer their help and support. The academic advisors are responsible for orienting the students and monitoring their progress throughout their entire university career.

In addition to the previous information, the academic advisor has access to a student profile along all his or her university career. This profile includes seven different virtual spaces as it is shown in Figure 3:

- 1 Student monitoring: this area allows the academic advisor to access information about their students' learning process not only in a particular semester but also along the career. The academic advisor can see if a student is enrolled in more than a programme, and has access to academic and assessment information.
- 2 Costumer help desk: this area includes information about personal details, complaints, technological problems and doubts about academic processes reported by students. The purpose of this area is to keep track of requests made by the students.
- 3 The Campus area gathers historical data about students' logging in the virtual campus. Date and time is specified. With this information, the academic advisor can see at any time if there is any student who in not connecting to a classroom or to the virtual campus.
- 4 The academic details area includes the list of subjects to which a student is enrolled, information about the registration process and about the delivery of the physical learning resources, if available.
- 5 Enrolment details: This area includes the enrolled subjects and the state of the student's registration.
- 6 The assessment area displays a grid with place, date and time of each final exam, as chosen by the student each semester.
- 7 The qualification area contains information on courses and degrees that the student has obtained through his/her academic life at the UOC.

**Figure 3** Student profile (see online version for colours)

 <b>UOC</b> Universitat Oberta de Catalunya																
<b>Student Profile</b>																
<b>Personal Information</b>																
ID Card No.		<b>Email Profiles</b>														
Date of birth																
Name and Surname																
Sex																
Address																
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## 7 Concluding remarks

Shurville and Browne (2006) highlight that the development of distance education needs a model of flexibility that results in substantial changes at both the individual and the organisational levels, which must be adequately resourced and managed. In order to develop management models for online universities, we must first find and compare management alternatives that have proved viable. This paper tries to contribute to the building of such body of knowledge.

This paper has explained the main characteristics of the virtual advising system developed at the UOC. Despite being a particular case, the authors hope that it will be useful to other universities that are developing their first online activity, as well as for more experienced institutions that want to reflect on their existing advising system.

In particular, this article has showed that the role of the advisor covers the support needs of learners in the context of a specific programme. To attain its goals, the advisorial system needs the combined efforts of academic and administration staff, as well as adequate tools that provide the information needed to correctly assess the situation of each student. Moreover, there are hardly any models available on how to organise the advisorial activity. As a consequence, the detailed description given in this paper can be useful for academic managers who are responsible for the development of new online advising systems or the improvement of existing ones.

## References

- Brinkworth, R., McCann, B., Matthews, C. and Nordström, K. (2009) 'First year expectations and experiences: student and teacher perspectives', *Higher Education*, Vol. 58, pp.157–173.
- Dahl, J. (2004) 'Trends in online advising', *Distance Education Report*, Vol. 8, No. 12, pp.4–5.
- Luna, G. and Medina, C. (2005) 'Using the internet to advise university students at distant locations', *2005 NACADA National Conference*, Code #158, Poster Session, available at <https://www.nacada.ksu.edu/nationalconf/2005/handouts/S507H1.doc>.
- Morris, A. and Miller, M. (2007) 'Advising practices of undergraduate online students in private higher education', *Online Journal of Distance Learning Administration*, Vol. X, No. IV.
- Patterson Lorenzetti, J. (2004) 'Proactive academic advising for distance students', *Distance Education Report*, 14 October, pp.4–6.
- Pevoto, B. (2000) 'Advising challenges in cyberspace', *Annual Conference of the Association for Career and Technical Education/International Vocational Education and Training Association*, 74th, San Diego, CA, 7–10 December.
- Ruth, A. (2008) 'Learning in a mediated online environment', *International Journal of Technology Enhanced Learning*, Vol. 1, Nos. 1/2, pp.132–143.
- Shurville, S. and Browne, T. (2006) 'ICT-driven change in higher education: learning from e-learning', *Journal of Organisational Transformation and Social Change*, Vol. 3, No. 1, pp.245–250.
- Smith, J.S., Dai, D.Y. and Szelest, B.P. (2006) 'Helping first-year students make the transition to college through advisor-researcher collaboration', *NACADA Journal*, Vol. 26, No. 1, pp.67–76, available at [http://www.nacada.k-state.edu/journal/26-1-Smith-Dai-Szelest\(67-76\).pdf](http://www.nacada.k-state.edu/journal/26-1-Smith-Dai-Szelest(67-76).pdf).
- Tait, A. (2000) 'Planning student support for open and distance learning', *Open Learning*, Vol. 15, No. 3, pp.287–299.

- Tait, A. (2003) 'Reflections on student support in open and distance learning', *International Review of Research in Open and Distance Learning*, Vol. 4, No. 1.
- Thorpe, M. (2002) 'Rethinking learner support: the challenge of collaborative online learning', *Open Learning*, Vol. 17, No. 2, pp.105–119.
- Torres, V. and Hernandez, E. (2009–2010) 'Influence of an identified advisor/mentor on urban Latino students' college experience', *Journal of College Student Retention: Research, Theory & Practice*, Vol. 11, pp.141–160.
- Wagner, L. (2001) 'Virtual advising: delivering student services', *Online Journal of Distance Learning Administration*, Fall, Vol. 4, No. 3, available at <http://www.westga.edu/~distance/jmain11.html>.