

Enhancing Academic Readiness of Mature-age Students for Distant University Study

Dana Dobrovská^{*}, Pavel Andres[†]

Abstract

Improving academic readiness (cognitive and non-cognitive aspects) of technical practical classes teachers is one of the great imperatives in the introductory phase of distant engineering pedagogical studies. Our survey brings the interview data on opinions of university staff and fresh graduates from the bachelor programme *Specialization in Pedagogy* suggesting some improvements on the topic.

Keywords:

Academic readiness
Cognitive and non-cognitive factors
Mature-age students
Teachers of practical classes
Opinion analysis of academics and graduates

1 Introduction

Academic readiness can be defined as the level of preparation a student needs to enroll and succeed in a credit-bearing education course at a postsecondary institution that offers degree (Conley, D.T., 2007). The term *succeed* is defined as completing entry-level courses with a level of understanding and proficiency that makes it possible for the student to be eligible to take the next course in the sequence or the next level course in the subject area (Conley, D.T., 2003a). A student with academic readiness is able to understand what is expected in a course, can cope with the content knowledge that is presented, and can take away the key intellectual lessons and dispositions the course was designed to convey and develop (Conley, D. T., 2007).

Academic readiness is not frequently discussed by academic researchers and practitioners at technical universities in the Czech Republic. The term often remains poorly articulated, leaving university students unclear about the expectations they will face, and university staff unable to help them truly prepare. Improving academic readiness of students who enter university studies at the age of 25-35 years is one of the great imperatives. While it goes without question that mature-age distant students need strong academic skills to succeed in postsecondary education, our research indicates that *university readiness* must be more broadly conceived. Several independently conducted research and development efforts help us identify the key knowledge and skills mature-age distant students should master to take full advantage of technical university (Jacobs, J. et al., 2012).

In the introductory phase, a comprehensive university course should address four distinct dimensions of university readiness: cognitive strategies, content knowledge, self-management skills, and knowledge about postsecondary education (Jacobs, J. et al., 2012, Andres, P., Dobrovská, D., 2015).

^{*} Czech Technical University in Prague, Masaryk Institute of Advanced Studies, Kolejní 2a, 160 00 Prague 6.
Corresponding author. E-mail: dana.dobrovska@cvut.cz

[†] Czech Technical University in Prague, Masaryk Institute of Advanced Studies, Kolejní 2a, 160 00 Prague 6.

2 The Big Four

Cognitive strategies and content knowledge as well as self-management skills and basic knowledge about post-secondary education known as the Big Four help students identify the key knowledge and skills (Karp, M. M., 2012). Both full-time and distant students should master to take full advantage of their technical university which is not easy to study at, especially in the first phase. If the distant mature-age students are able to adapt to the technical university climate it can be considered an advantage. At a technical university, students must keep track of massive amounts of information and organize themselves to meet competing deadlines and priorities. They must plan their time carefully to complete these tasks. They must be able to study independently or in formal study groups. They must know when to seek help from academic support services and when to cut their losses and drop a course. These tasks require self-management, a skill that individuals must develop over time, with considerable will, practice and trial-and-error.

Choosing a higher education institution, submitting all necessary information, applying, taking required admission exams and then adjusting to university life all this requires a considerable amount of specialized knowledge. This knowledge also includes understanding how the culture of university is different from that of high school. Distant mature-age students generally demonstrate uneven mastery of these four dimensions which have both cognitive and non-cognitive background. Although it is important for high schools to meet the needs of all students who wish to go on to postsecondary education, even with a delay of several years, some students require a much more intentional, comprehensive programme of preparation that is carefully calibrated to their needs.

To meet this challenge, educators should be more active in order to increase student academic skills. University staff often tell students they must *study hard* for their class. But in high school, studying usually entails completing nightly homework, taking biweekly tests, and completing short-term assignments. Technical university *studying*, in contrast, means completing work independently, even if an academic doesn't collect or grade it. It means reviewing a syllabus at the beginning of a course, developing a plan to complete long-term projects and studying large amounts of material for infrequent exams. As educators aim to make the academic skills needed for university readiness clearer, they must do the same for non-cognitive skills (e.g. some student personality traits).

3 Enhancing Academic Skills of Practical Teachers - A Pilot Study

Our qualitative pilot study confirms that academic readiness must be more broadly conceived - mature-age students need strong academic skills to succeed in postsecondary education, our experience fully meets these expectations. *In our study, we interviewed 9 university staff and 22 graduates from the bachelor program for technical teachers.* These interviews, conducted in summer semester 2015, made clear that certain skills, behaviours and attitudes are equally germane to university success.

3.1 Qualitative Analysis of Graduate Attitudes: Methodology and Data

We used unstructured interviews, which represent a qualitative method of gathering evidence, data and information. We developed a *loose* guide, with general questions designed to open up conversation about student academic readiness. This included series of follow-up questions, prepared in advance, in order to elicit certain types of information from the informant. Qualitative research responses are not usually expressed in numerical terms, as might be the case with questionnaires. Nevertheless, we would like to present for this purpose an elementary table (table 1) to evident most frequent answers of graduates. In our survey, (22 interviewees), we identified three specific areas which were evaluated substantial for mature-age students academic success which correspond with some previous studies (Conley, D. T., 2007)

- To adopt academic habits (cognitive and non-cognitive factor)
- To develop ability to balance school and other demands (non-cognitive factor)
- To engage in help-seeking (and to have teacher response, non-cognitive factor)

Adopt acad. habits	Balance school and other	Engage in help seeking
12 answers	19 answers	11 answers
Remove knowl. gaps	Overcome laziness	Other - miscellaneous
7 answers	9 answers	8 answers

Table 1- Graduate Attitudes

In their responses, most graduates believed *academic habits* can be developed if university faculty had clear expectations of their mature-age students and if they were able to precise them more clearly. Mature-age student expectations differ substantively from those in high school (years ago), and while meeting them was critical to academic success, they often remained largely unspoken. The interviewees were to some extent critical about misunderstandings between them and teaching staff in this aspect: ...*“many university teachers believe they already clearly articulate their expectations to students, verbally and in their handouts, but their behavioural expectations must be made far more explicit and precise...”*. Or ...*“at the beginning, teachers didn’t tell me exactly what to expect, so I didn’t know what to do! And I felt intimidated to ask, not to play stupid...”*. Overall, the evidence points to the need for active, scaffolded guidance so that mature-age distant students can develop these behaviours and strategies.

Graduates mean *ability to balance school and other demands* represents another crucial aspect of university readiness: in order to optimize functioning, it is necessary to find a balance between the various roles a mature-age student plays: partner, father, worker, friend, classmate, etc. These roles are often in conflict, and a student must be adept at attending to a variety of factors and assessing priorities. Time management is a key component to both academic (and professional) success. It is an essential skill that will help a mature-age student concentrate all efforts on what is most important.

Help-seeking engagement was the last of the three most discussed items. In an ideal situation, students who meet the university expectation of studying hard use strategies such as breaking their syllabus into small chunks of material to learn at regularly scheduled intervals, and taking notes in the margins of their textbooks while reading. Faculty should explain these and many other successful behaviours to students on the first day of class, and regularly remind them of these and other important skills, such as recognizing when they need help, and asking for assistance rather than waiting for it to be offered. To make their expectations sufficiently explicit and actionable, university staff should first spend time reflecting also upon the non-academic behaviours and skills they expect of their students. Only once they have identified their own expectations, they can make these clear to students and develop assignments that will help students learn to employ them. For example, when a teacher asks students to *come to class prepared*, what does this mean? If this means coming to class having completed a reading and being prepared to participate in discussions about it, he/she can include this expectation in the syllabus, explain it to students from the first day of class, assign students to write out three questions or observations about the reading to discuss each week.

3.2 Qualitative Analysis of Faculty Attitudes: Methodology and Data

A similar methodology was used in the interviews with 9 teachers (ICT, teaching methodology-didactics, psychology, personal management), with a long-term teaching practice in distant studies. Interviews also included series of follow-up questions, prepared in advance, in order to encourage certain types of information.

- To adopt academic habits
- To develop ability to balance school and other demands
- To enhance work ethic

Teachers are convinced the most successful first-year students are those who come prepared to work at the level faculty members expect (*who are able to adopt academic habits*). Those who do not arrive fully prepared

– and this might be the case of some mature-age students who had completed their high school study 10 – 15 ago, and have lost their learning skills, are significantly less likely to progress beyond entry-level courses, as witnessed by the high failure rates in these courses. Instructors admit to be aware of the evidence the student-teacher relationship is much different at universities than in high schools, and again it is different in distant forms of study. But they proclaim proper tolerance in this sense. (*A common example cited by some respondents was some assertive first-term freshman who is failing a course and approaches the professor near the end of the term to request an extra exam term in order to be able to pass the course, while less assertive freshmen do not dare to use similar behaviours and have to enroll the course for the second time*).

Time management - ability to balance school and other demands was cited often in the answers, similarly to graduates answers. Faculty reported mature-age students usually enter university with a *work ethic* that prepares them for teacher expectations and course requirements, but it is difficult for them to persist during the whole study. But unlike in graduates answers, teachers were convinced their readiness to help mature-age students overcoming early obstacles is sufficient.

Adopt acad. Habits	Balance school and other	Work ethic
8 answers	8 answers	7 answers
Enhance motivation	Overcome laziness	Other-miscellaneous
7 answers	9 answers	13 answers

Table 2 - Teacher Attitudes

4 Conclusions

Qualitative analysis of interviewees attitudes on academic readiness in both groups shows many similarities. But as reported by graduates, instructors should explain successful behaviours to students on the first day of class, and regularly remind them of these and other important skills, such as recognizing when they need help. Students should be more active when asking for assistance rather than waiting for it to be offered. To make their expectations sufficiently explicit and actionable, university staff should first spend time reflecting upon the (non-) academic behaviours and skills of every specific group of students (e.g. mature-age ones), and be aware of what to expect from them. Once they have identified their own expectations, they can make these clear to students and develop assignments that will help students learn to employ the necessary behaviours. Institutions should formalize this process by asking entire departments to similarly identify and explicate the unspoken expectations to which students are held. Conversations about behavioural expectations could be conducted as part of programme review, professional development or the creation of learning outcomes. Importantly, departments should then make identified academic and non-academic expectations clearer to current and future students - by embedding them into course syllabi and structuring orientation, outreach activities and success courses around them. Universities should also work with high schools and state education policymakers to ensure that academic readiness standards are incorporated into ongoing university readiness initiatives. Senior-year transition courses, university-high school partnership programmes are all avenues through which expectations can be clearly communicated to students, and successful skills and behaviours can be taught.

References

- Andres, P. Dobrovská, D. (2015). *Dilemmas of Student Technical and Social Sciences Thinking*. WEEF2015. Engineering Education for a Resilient Society.
- Andres, P., Dobrovská, D. *Motivační faktory ve výuce humanitních předmětů v pedagogickém vzdělávání učitelů technických předmětů*. Aula, č. 2, 2015.
- Conley, D. T. *Understanding university success*. Eugene, O.R: Center for Educational Policy Research, University of Oregon. 2003a
- Conley, D. T. *Redefining College Readiness*. Educational Policy Improvement Center, Vol. 3, 2007.

Jacobs, J. College Readiness Goes beyond Academic Skills.
http://www.huffingtonpost.com/2012/09/26/college-readiness-goes-be_n_1916167.html
Karp, M. M., *Clear Expectations on Readiness* (2012). www.act.org