

# Research and Solutions for PhD Completion: Technologies Proven to Help Students Overcome Particular Areas of Distress

---

The analysis of completion and attrition rates for doctoral candidates is flawed and will not help administrators build stronger programs. Previous data, from a decade ago, will not aid today's university administrator because it does not take into account the changes in student demographics (Stokes, 2007).

As an example, in the PhD completion and attrition analysis of baseline data from the US Council of Graduate Schools (CGS, 2008), three key variables, that are changing the face of graduate/postgraduate education around the world, are not included. CGS did not consider students who are: older, working full time or at a distance from their universities. For over two decades colleges have reported increases in these populations and yet **still many programs have not implemented significant changes to meet the needs they represent** (Andres & Carpenter, 1997; Stokes, 2007). This article takes a look at the research, and what has proven successful.

This is the third part in a three part series. The first article considered [the cost of doing nothing](#) to increase graduate retention and completion. The second article considered [return on investment](#) for the university to implement self-built solutions vs. subscribing to a technology enhanced learning (TEL) set of options. This final article looks at graduate retention and completion research and discusses what technology solutions should be considered as they are touted by students as effective. Each section starts with a small overview of peer reviewed research on the topic, followed by a discussion of technology proven to help.

## What “goes wrong” for the mature student, one who is working full time, or someone at a distance from their university?

It should be noted that one single person may have all three risk factors: older, at a distance, and working full time, or any mixture of these may exist or change over time. Further, the coping and persistence skills of students vary widely. Finally, what is a hindrance to one is a benefit to another as can be seen in anecdotal evidence that working full time is usually seen as the greatest challenge to retention and completion, when just as equally, the case could be made for the advantage to someone else for whom their university requirements integrate well with their work life. This exacerbates the range we see in research.

These contributing factors to graduate/postgraduate attrition represent “a monolithic concern for doctoral granting institutions, including the unbridled loss of an institutions doctoral contingency, untold economic losses, potential loss in rank or classification and immeasurable voids in research” (DiPierro, 2012, p. 30). For the purposes of this article, only TEL modalities that have been proven efficacious by relatively large populations (>200) of PhD students are discussed.

### **Part time consideration leads to enhanced levels of confusion**

Great variety is noted both in doctoral programs and in the myriad of reasons students attend them. Both impact the outcomes of retention and completion. Equally, research has approached elements within this varied playing field from many angles. As examples, Lahenius & Martinsuo’s data (2011) distributes from low to high levels of goal orientation and low to high levels of resource whereas Gardner (2008) examined the socialization processes reported by students to facilitate or impede degree completion.

### **Socialization or integration with a university community**

Socialization comes in small batches and adds up over time (Gardner, 2008; Spaulding & Rockinson-Szapkiw, 2012). In a similar vein so does a student’s sense of belonging to a cohort or of feeling of integration within their wider university campus (Andres & Carpenter, 1997; Barker, 2011; Gardner, 2008; Wamala, Ocaya, & Oonyu, 2012; “Research Proposal DoctoralNet Ltd in Partnership with Cork Institute of Technology and various Universities in Africa,” n.d.; Spaulding & Rockinson-Szapkiw, 2012, 2012; Vekkaila, Pyhältö, & Lonka, 2013). A high degree of socialization closely links with making positive choice to remain in the educational process and complete.

Therefore, it is intuitively easy to see why attrition in online degree programs is consistently higher than that of on campus programs (Patterson & McFadden, 2009). Lack of socialization can be seen in student’s inability to overcome the challenges inherent in the rest of their lives, as well as in what they consider program related reasons such as: “Lack of one-to-one interaction with instructors or other students” (Willging & Johnson, 2009 pg 124).

How can technology mimic the day-to-day insights and additions to understanding that come naturally as part of on-campus student life? When recently visiting Dublin City University, as an example, I overheard an in-depth philosophical conversation between two women in the locker room pertaining to a comparison between two authors. A student doesn’t just bump into this online.

A substitute can be seen in 365 daily push notifications. These arrive in an email inbox with spurts of motivation, news, philosophy, theory and examples of others who have succeeded. This TEL strategy has proved to be so successful that it enjoys almost a 50% open rate for the 300+ students who currently have opted-in for the service.

*“I don’t know how she does it, but so often the motivational message sent by Margie in the 365 for the day is exactly what I need to hear to keep me going.” VA, University of Bath*

## Engagement

Variety has been said to be the spice of life and it may well prove to be the spice of engagement as well. Anecdotal evidence regarding cohorts and communities demonstrate a bell curve where some will never engage and some will engage and stay engaged for years, leading some researchers to classify engagement into those students who are most like a project manager, a wanderer or a hobbyist (Lahenius & Martinsuo, 2011). Most, however fall somewhere in the middle for both level of engagement and likelihood of moving on. Moreover people may report feeling of engagement when they merely lurk at the edge of conversations, which explains why so many people join social networks groups in tools such as LinkedIn but few post (Butterwick, Cockell, McArthur-Blair, Maciver, & Rodrigues, 2012).

Following the same pattern of live vs. lurkers, [tutorial webinars](#) draw both a regular pattern of 30 or more attendees while the resulting video recordings will be watched by hundreds. While TEL offers a potpourri of alternative options for engagement, and some will always appeal more to some than others, there is significant data backing up the immediate, direct effect on increased [graduate students' milestones](#) by having a professor available 24/7 for quick instant messages. Students report:

*Just knowing someone is there during the time I work from 8PM until midnight alleviates my previous feeling of isolation." LCC, Dublin City University, expressed during a webinar*

Students leading busy lives also may struggle making the time to engage with their own writing. For that the [30 day writing challenge](#) has proven very successful.

*The 30 day writing challenge was just what I needed. Your professor videos were full of practical hints but also just having them with me everyday got me started. DD University of Phoenix.*

## Supervisors

Much research has been conducted over the years focused on both the problems inherent in, and the management of supervisor/student relationships (Baker, Pifer, & Flemion, 2013; Boud & Lee, 2005; 2005; Carter, 2008; Elgar, 2003; Gatfield, 2005; Gill & Burnard, 2011; Grant & McKinley, 2011; E. A. James, 2014; Kearns, Gardiner, & Marshall, 2008; Kiley, 2011, 2009; Lahenius & Martinsuo, 2011; Mahony, 2007; Pyhältö, Vekkaila, & Keskinen, 2012; Pyhältö et al., 2012). Some have focused on whether and to what extent similarities or differences in race or other factors, such as expertise in the field etc., are most important in achieving "a good fit" (Grant & McKinley, 2011).

For the modern, part time student who is at a distance from campus, we believe the next level of research will point to timeliness of feedback as a major driving factor. When working from 8Pm to midnight, what matters most to a student may be the ability to find someone from whom they can get a quick answer about a research problem they face. TEL can make use of instant messaging and live chat. From the use of these tools we hear comments such as:

*DoctoralNet provided direction during times when I wasn't able to ask others. The online chats were extremely helpful for quick question & answer sessions. Especially when I was*

*beginning to bog myself down in too much detail! Candi Van Vleet, Dr of Health Administration.*

## Coping Skills

Mature students come back to academic life having honed a set of work related skills proven to make them successful, yet these may or may not be of much aid to them during postgraduate life/work. Some universities respond by creating programs designed to merge academic and work life (Park, 2005). Others develop new support programs for graduate and professional studies (Johnson, 1996). Considering the needs of the 'first in a family' PhD has also earned a considerable research focus (Kniffin, 2007). All doctoral candidates sooner or later will be up against their own personal level of skill (or lack thereof) in areas of: [time management](#), [academic writing](#), [critical analysis](#), [organization](#), [strategy](#) and [persistence](#). As can be seen by following those hyperlinks, each has ways and means of being coped with through technological aid.

## Personal Attributes

Spaulding & Rockinson-Szapkiw's research (2012, pp. 213-214) ends by recommending the following for students:

1. Identify personal and professional motivations for pursuing the degree
2. Ensure an academic match when selecting a program.
3. Ensure social-personal match when choosing a supervisor
4. Set realistic goals and implement strategies to reach them
5. Seek opportunities for economic integration.

All university administrators would, of course, hope that most, if not all of their students would have these advantages. However, in an age of consistent growth in graduate programs, none of these can be assured. How can TEL help with these "softer" issues? Much has been learned from applications developed for personal health and sports from which develop the following:

1. Online [tools for tracking milestones](#) and reporting on goals and motivations
2. [Wider international groups](#) and special interest smaller groups help ensure academic match even when not available on campus.
3. Whatever qualities may appear to be less than 100% in a supervisor (and these are known to change over time) can be augmented through [online tutorial webinars](#).
4. [Retired professors](#) working part time can be employed to strategically lift struggling students.
5. [Pace towards graduation](#) does much to ensure scholarships don't run out prior to a student finishing.

## Persistence

Finally, at the end of all discussions on graduate/postgraduate retention and completion must be an overview on what students report as useful aids to their own persistence (Ampaw & Jaeger, 2012; Andres & Carpenter, 1997; Cohen, 2009; James, 2014; Nerad & Miller, 1996; Pierro, 2012; Spaulding & Rockinson-Szapkiw, 2012; Wao, 2010). Some studies conclude that race and part time status reduce persistence; others point out the natural disinclination to continue if the journey goes on too long – but

we would suggest these are not causal relationships to lack of persistence but significant corollaries at best (Ampaw & Jaeger, 2012; Spaulding & Rockinson-Szapkiw, 2012; Wao, 2010).

Graduate retention and completion is, of course, a complex weave of personal and professional considerations. This article touched on just a few of the many tensions discussed in research. The traditional model of education is not equipped by itself for the reduction of these tensions; rather the traditional model will benefit from the strategic application of a menu of TEL options. The modern learner is used to reaching out to the digital world to augment their personal realities. The second article in this series on the return on investment for a university by partnering with a software- as- a- service company to provide these services points out that such a partnership will enhance a school's bottom line as well.

Having a menu of services provides "just in time" aid and results in comments such as:

*I had the "What" the "Why" but DoctoralNet provided the How - as I was doing the work I was able to be able to visualize the process I needed to go through to finish. Henrietta Knight, Doctor of Theology*

More information on these and other TEL solutions specifically available to universities for their graduate/ postgraduate programs please visit: <http://university.doctoralnet.com> or email: [ajames@doctoralnet.com](mailto:ajames@doctoralnet.com) .

## References

- Ampaw, F. D., & Jaeger, A. J. (2012). Completing the Three Stages of Doctoral Education: An Event History Analysis. *Research in Higher Education*, 53, 640–660. doi:10.1007/s11162-011-9250-3
- Andres, L., & Carpenter, S. (1997). Today ' s Higher Education Students : Issues of Admission , Prepared by.
- Baker, V. L., Pifer, M. J., & Fleminion, B. (2013). Process challenges and learning-based interactions in stage 2 of doctoral education: Implications from two applied social science fields. *The Journal of Higher Education*, 84(4), 449–476. doi:10.1353/jhe.2013.0024
- Barker, M. J. (2011). Racial context, currency and connections: Black doctoral student and white advisor perspectives on cross-race advising. *Innovations in Education and Teaching International*, 48(4), 387–400. doi:10.1080/14703297.2011.617092
- Boud, D., & Lee, A. (2005). "Peer learning" as pedagogic discourse for research education. *Studies in Higher Education*, 30(5), 501–516. doi:10.1080/03075070500249138
- Butterwick, S., Cockell, J., McArthur-Blair, J., Maciver, S., & Rodrigues, J. (2012). Connectivity and collectivity in a doctoral cohort program: An academic memoir in five parts. *Alberta Journal of Educational Research*, 57(4), 446–459.
- Carter, S. (2008). Examining the doctoral thesis: a discussion. *Innovations in Education and Teaching*

*International*, 45(4), 365–374. doi:10.1080/14703290802377208

Cohen, S. M. (2009). Doctoral Persistence and Doctoral, 33.

Council of Graduate Schools. (2008). *Ph.D. Completion and Attrition: Analysis of Baseline Demographic Data from the Ph.D. Completion Project Executive Summary*. *Ph.D. Completion and Attrition: Analysis of Baseline Demographic Data from the Ph.D. Completion Project Executive Summary*.

DiPierro, M. (2012). Strategies for doctoral student retention: Taking the roads less traveled. *The Journal for Quality & Participation*, 29–32.

Elgar, F. J. (2003). Phd Degree Completion in Canadian Universities. *Nova Scotia, Canada: Dalhousie University*, 1–31.

Gardner, S. K. (2008). Fitting the mold of graduate school: A qualitative study of socialization in doctoral education. *Innovative Higher Education*, 33, 125–138. doi:10.1007/s10755-008-9068-x

Gatfield, T. (2005). An Investigation into PhD Supervisory Management Styles: Development of a dynamic conceptual model and its managerial implications. *Journal of Higher Education Policy and Management*, 27(3), 311–325. doi:10.1080/13600800500283585

Gill, P., & Burnard, P. (2011). The student' Supervisor relationship in the PhD/Doctoral process, 2(May), 1–5. Retrieved from papers2://publication/uuid/E16C7A98-FF10-4420-9A2C-E166A3FD97F6

Grant, B., & McKinley, E. (2011). Colouring the pedagogy of doctoral supervision: considering supervisor, student and knowledge through the lens of indigeneity. *Innovations in Education and Teaching International*, 48(4), 377–386. doi:10.1080/14703297.2011.617087

James, E. A. (2014). Technological Strategies as Aids to PhD Completion. *eLearning Industry*, 1–7.

Johnson, I. H. (1996). Access and Retention: Support Programs for Graduate and Professional Students. *New Directions for Student Services, Summer*, 53.

Kearns, H., Gardiner, M., & Marshall, K. (2008). Innovation in PhD completion: the hardy shall succeed (and be happy!). *Higher Education Research & Development*.

Kiley, M. (2009). "You don't want a smart Alec': selecting examiners to assess doctoral dissertations. *Studies in Higher Education*, 34(8), 889–903. doi:10.1080/03075070802713112

Kiley, M. (2011). Developments in research supervisor training: causes and responses. *Studies in Higher Education*, 36(5), 585–599. doi:10.1080/03075079.2011.594595

Kniffin, K. M. (2007). Accessibility to the PhD and Professoriate for First- Generation College Graduates: Review and Implications for Students, Faculty, and Campus Policies. *American Academic*, 3, 49–80.

Lahenius, K., & Martinsuo, M. (2011). Different Types of Doctoral Study Processes. *Scandinavian Journal of Educational Research*, 55(6), 609–623. doi:10.1080/00313831.2011.555924

Mahony, D. M. (2007). *How Participatory Work Practices Affect Front-Line Supervisors*. *Journal of Labor*

- Research* (Vol. 28, pp. 147–168). Springer Science & Business Media B.V. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=23815042&site=bsi-live>
- Nerad, M., & Miller, D. S. (1996). Increasing student retention in graduate and professional programs. *New Directions for Institutional Research*, 1996(92), 61–76. Retrieved from <http://doi.wiley.com/10.1002/ir.37019969207>
- Park, C. (2005). New Variant PhD: The changing nature of the doctorate in the UK. *Journal of Higher Education Policy and Management*, 27(2), 189–207. doi:10.1080/13600800500120068
- Patterson, B., & McFadden, C. (2009). Attrition in online and campus degree programs. *Online Journal of Distance Learning Administration*, 12(li), 9. Retrieved from <http://www.westga.edu/~distance/ojdla/summer122/patterson112.html>
- Ph, O. A., & Makerere, D. A. (2012). Extended Candidature And Non-Completion, 5(3), 175–184.
- Pierro, M. Di. (n.d.). Theoretical Foundations for Strategies for Increasing Doctoral Students ' Retention.
- Pyhältö, K., Vekkaila, J., & Keskinen, J. (2012). Exploring the Fit between Doctoral Students ' and Supervisors ' Perceptions of Resources and Challenges vis-à-vis the Doctoral Journey Engagement in Doctoral Research. *International Journal of Doctoral Studies*, 7, 395–414.
- Research Proposal DoctoralNet Ltd in Partnership with Cork Institute of Technology and various Universities in Africa. (n.d.), 353(21), 1–8.
- Spaulding, L. S., & Rockinson-Szapkiw, A. J. (2012). Hearing their voices: Factors doctoral candidates attribute to their persistence. *International Journal of Doctoral Studies*, 7, 199–219.
- Stokes, P. J. (2007). Hidden in Plain Sight: Adult Learners Forge a New Tradition in Higher Education, 1–6.
- Vekkaila, J., Pyhältö, K., & Lonka, K. (2013). Experiences of disengagement - A study of doctoral students in the behavioral sciences. *International Journal of Doctoral Studies*, 8, 61–81.
- Wao, H. O. (2010). Time to the doctorate: Multilevel discrete-time hazard analysis. *Educational Assessment, Evaluation and Accountability*, 22, 227–247. doi:10.1007/s11092-010-9099-6
- Willging, P. a., & Johnson, S. D. (2009). Factors that influence students' decision to dropout of online courses. *Journal of Asynchronous Learning Network*, 13(3), 115–127.