

People all over the world try to know what they do not know, instead of trying to know what they already know. (Soshi quoted in Teymur 2007:101)

CHAPTER 7 **REVIEW, REFLECTION AND RECOMMENDATIONS**

7.1. OUTLINE OF CHAPTER 7

In this chapter the research presented in the thesis is concluded with a review of the salient points and findings of the study, a reflection on the outcomes and recommendations that may follow from this study.

7.2. REVIEW AND FINDINGS

7.2.1. Purpose of the study

The study set out to identify strongpoints and shortcomings that could confirm or contest the validity of the most recent practices employed for the selection of beginner students in architecture at UP.

7.2.2. Review of the enquiry

7.2.2.1. Main problem statement

Four subproblems were identified to support and contextualise an understanding of the main problem statement, namely to critically assess the methods employed for the selection of beginner students in architecture at UP between 1971 and 2016 in order to reflect and make recommendations as to current procedures.

7.2.2.2. Subproblem 1

The first subproblem was to critically investigate the admission procedures and assessment tools for selection into systems of architectural education worldwide.

This subproblem was addressed through a review of literature to establish the context of selection. Two broad categories of selection for admission were identified, namely general selection that acts as a generic benchmark, and selection that is specific and is required to assess an individual's skills against particular requirements that are compatible, or at the very least analogous, with the programme for which an individual is being considered. This distinction presented a salient point of reference.

The primary motive for selective admission into schools of architecture was nominally found to be an oversupply of applicants compared to the number of students that the available resources could sustain. Precedent studies concluded that the École des Beaux-Arts, the Bauhaus and the Bartlett School of Architecture had achieved significant specificity with regard to their selection practices and its correlation with their programmes and pedagogic methods. Lessons learnt from the Bartlett further indicated that standard indicators, such as an applicant's academic record, should be weighted with considerations of a contextual and personal nature.

It was found that an overwhelming majority of schools of architecture internationally considered multiple assessment tools during selection. Eight main assessment tools were listed and ranked according to their popularity as revealed in published surveys, with academic records and aptitude tests administered by third parties proving to be the most prevalent. It was evident that schools were at variance as to their motivations for using certain assessment tools or combinations thereof, but also that particular value systems or approaches to architectural education were evident in the selection practices of respondents.

These aspects served to inform a framework for selection into systems of architectural education beyond the basic principles of admission to higher education institutions and supported the supposition to subproblem one, namely that schools of architecture worldwide use a variety of differing admission procedures and apply multiple assessment tools during selection.

7.2.2.3. Subproblem 2

The second subproblem was to determine and critically investigate the admission procedures and assessment tools for the selection of beginner students into schools of architecture in South Africa.

A lack of available information on the selection practices of local schools of architecture necessitated that the researcher undertake a national survey to clarify how, and by means of which assessment tools, beginner students were considered for admission to schools of architecture in South Africa. The findings indicated that all of the respondents selected applicants for admission as they received, on average, far more applications for the 2016 academic year than they could accommodate. Some trends that emerged from the local survey correlated with the findings of the international surveys, including the widespread use of academic record as a basic requirement, albeit that the majority of local respondents weighted their consideration of the academic record of lesser importance when compared to other assessment tools. Another result that matched with the international surveys indicated that few local respondents conducted formal research to measure the success of their selection procedures.

The order of popularity of the other assessment tools differed substantially from those recorded in the international surveys and it was determined that local schools required of applicants to undergo assessment in more aspects and formats than do their counterparts internationally. Portfolios were used by far more South African schools than was the case internationally, but some concerns were raised about the authenticity of authorship when opportunities to follow-up or discuss portfolios were not part of the selection regime.

In the questionnaire the researcher suggested that a distinction be drawn between revelatory and showcase portfolios. The former category, which proved to be the norm among respondents, serves purpose for the reviewing of the processes of production it engaged and may therefore be indicative of latent or patent abilities. In a showcase portfolio the focus shifts to the apparent outcomes as it is reviewed as a compilation of the applicant's best work. The distinction is seen as one with implications for selectors.

Other considerations that were contextually informed did transpire, including issues of a logistical nature and socioeconomic inequality coupled with its impact on basic education. Workplace experience, an assessment tool that did not feature in the international surveys, was introduced to the local survey and more institutions than was anticipated preferred or even required that applicants investigate the nature of the architect's workplace as a means of better informing themselves as to the choice of career.

The supposition to subproblem two, namely that schools of architecture in South Africa use admission procedures and assessment tools for the selection of beginner students that are similar to those used by schools of architecture worldwide, was only partly evidenced. South African schools of architecture do follow many of the admission procedures and assessment tools that schools of architecture elsewhere use, but distinct differences also emerged that are specific to the local context and its realities.

7.2.2.4. Subproblem 3

The third subproblem was to critically examine the trajectory of historical selection practices for the admission of beginner students in architecture at the University of Pretoria from 1971 until 2006.

The third subproblem introduced the major case study presented in this thesis and that was divided into distinct episodes in accordance with the prevailing practices for the selection of beginner students.

The first episode was triggered by a significant increase in the number of applications received for admission to the programme in architecture. This, in turn, motivated the undertaking of formal research in the field of psychology to determine an appropriate battery of selection tests and other procedures on the behalf of the Department. The findings relied on a task analysis and deductions informed by the prevailing academic-scientific attitude to the curriculum; as a result it established a compatible and analogous relationship with the academic programme. It was validated in testing with a homogenous group of mostly Afrikaans speaking white male students (who had access to the University under the Apartheid regime)

and relied on an arithmetical weighting of multiple assessment tools, including psychometric tests, a partial academic record and an interview. The procedure was used to empirically predict which applicants had a high probability of passing their first year of study and therefore students' results were continuously monitored through statistical analysis. As a result it was argued that the selection procedure was aligned with the Department's curricular objectives and technical outlook.

During the second half of the episode academic restructuring was implemented that signified a more confident stance and streamlined the selection procedure. Although success, especially in capping the rate of attrition as demonstrated through statistical analysis, was sustained, the system lost its credibility as the indicators on which it relied had, over time, become diluted and so the system for selection was terminated in 1994.

From this review it is evident that the findings supported the first supposition to subproblem three, namely that the trajectory of historical selection practices for the admission of beginner students in architecture at the University of Pretoria between 1971 and 1994 were based on research findings and were compatible with and analogous to teaching and learning in the programme for which students were selected.

Changes in the socio-political context of South Africa and the ensuing reform of the educational landscape by the first democratically elected government introduced far-reaching changes to programme and institutional structures that extended to the curriculum of the Department. The addition of two related spatial design programmes to the managerial unit of the School led to the implementation of a core generic curriculum with an equifinal approach that augmented the ethos of ecosystemic values with interdisciplinarity.

Despite these dramatic changes, and due to pressure for institutional conformity, selection principally reverted to an applicant's academic record according to standardised policies of the Institution and their use of a generic formula for the Matriculation Score.

The evidence supported the second supposition to subproblem three, namely that the trajectory of historical selection practices for the admission of beginner students in architecture at the University of Pretoria between 1995 and 2006 was informed by managerial policies and were general and not specifically aligned with teaching and learning in the programme for which students were selected.

7.2.2.5. Subproblem 4

The fourth subproblem was to critically examine the trajectory of selection practices for the admission of beginner students in architecture at the University of Pretoria from 2007 until 2016.

After a decade that followed the achievement of full democracy in the 1990s it became apparent that the generalist approach to selection did not contribute to the academic objectives of the School and its programmes and that it negatively affected markers of academic performance and equity. This set in

motion an enquiry to reformulate and put into practise an inclusive approach to the selection of beginner students for the programmes in the architectural disciplines presented by the School.

Its resolution broadened the basis for considering the merit of an application and rejected the notion of a formulaic ideal applicant profile. Instead it introduced the consideration of multiple assessment tools: academic record as a threshold requirement, revelatory portfolios with prescribed content that included personal statements and evidence of workplace experience, special architecture tests that emphasised performance assessment, written arguments and literacy skills that were collectively assessed in the final, summative format of an interview. The tenets of this approach are implicitly and explicitly linked to the objectives and expectations of the School and were designed to allow for self-expression by the applicant and an opportunity to discover the profession, the School and the Institution through first-hand experience. The procedure is process-driven, cognisant of local contextual imperatives and has been subjected to ongoing evaluation and formal review.

While the typical academic indicators have showed marked improvements for the first year of study and for the undergraduate programmes as a whole, the demographic representivity and diversity of the student body is improving, but has not yet been aligned with the realities of South Africa and continues to be a priority.

These conclusions definitively supports the supposition to subproblem four, namely that the selection practices for the admission of beginner students in architecture at UP between 2007 and 2016 were specific to, and had a positive interrelationship with, teaching and learning in the programme for which students were selected.

7.2.3. Findings of the enquiry

The main problem statement required of the study to critically assess the methods employed for the selection of beginner students in architecture at UP between 1971 and 2016 in order to reflect and make recommendations as to current procedures.

The supposition to the main problem positively asserts that a generalist approach to selection is inadequate for the appropriate assessment of applications for the admission of beginner students in architecture at UP and therefore that a specific approach is required that is informed by the modes and means of learning and teaching in the programme for which students are selected.

It is therefore concluded that the most recent approach to the selection of beginner students in architecture at UP, which has been shown to be based on validated procedures, should be carried forward with the provision that it remains attuned to the normative position, ethos and spirit of the academic programme for which students are selected and with consideration of multiple and nuanced informants.

7.3. CONTRIBUTIONS OF THIS STUDY

The primary contribution of this study to the field of architectural education is that it challenges and starts to bridge the disconnection that exists between the prevailing local tertiary institutional practices in the selection of students for admission to schools of architecture on the one hand, and on the other the dearth of critical engagement and available research, especially emanating from South Africa and the African continent, to inform, support and develop these practices.

The study provides an inventory of current selection practices employed by all of the schools of architecture in South Africa and can therefore be formative and informative in as much as it provides a platform for engagement about the status quo of admission policies and procedures at a time when equitable access to higher education in general, and specifically to resource intensive programmes such as architecture, feature prominently in the national debate and within a profession attempting to transform itself.

The major case study presented in this thesis spans a period of forty-five years and contributes meaningfully to a better understanding of the relationship between an applicant and the academic programme for which he or she has applied. In addition it establishes a firm and necessary interdependence between the design of selection procedures and the ethos of the specific school of architecture. In the thesis this reciprocity is extended to the profession and thereby makes a significant contribution as it explicates the value, and success, of workplace experience as part of the selection process with specific reference to the South African context and as part of a decisive strategy to inform and engage with applicants, whether their applications are ultimately successful or not.

The introduction and development of legitimate internal feedback loops and formal mechanisms of external scrutiny for the verification of selection procedures are considered to be important outcomes of this study. Especially the latter has, at least on an institutional and organisational level, served to validate aspects that may have previously been considered as opaque or even inaccessible, just like the 'black box' of architectural education and indeed the profession itself. Ironically the anticipated consequence is that these principles may in future prove useful beyond the realm of architecture and its education.

The study affirms and acknowledges institutional repositories and archives as invaluable sources of knowledge in research endeavours. The archive of the Department has unlocked rich sources of information and the researcher actively contributed to expanding its collections by sourcing, indexing and systematising research material for accessioning.

On a personal level the collating and brief outlining of the academic history of the School from varied and disparate sources is seen as a contribution to the seventy-fifth anniversary of the Department in 2018.

7.4. CRITICAL REFLECTION

Selection is a difficult and often contested undertaking, regardless of whether it is done to identify suitable participants for a sport event or for purposes of admission to a specific academic programme. In both of these cases it is often easier to focus on the selection process than it is to be mindful of the context and ultimate purpose of the selection process. By means of analogy it is therefore argued that it would be inappropriate to only consider how far a person can throw a tennis ball when one is selecting runners to compete in a marathon, despite the fact that distance is a pertinent factor in both actions. While this example may oversimplify a complex problem, it does draw attention to the critical alignment that is required between the act of selection and the subsequent actions in which those who are selected will be expected to succeed.

In light of the above it can rightly be asked if a minimum threshold has been identified as a prerequisite for admission to schools of architecture. As space is the medium for the conceptions of architects, the researcher suggests that an active three-dimensional imagination may constitute the absolute minimum skill required for prospective architects. Admittedly this is a difficult ability to assess and decidedly one that cannot be quantified by a formula or from a multiple-choice questionnaire.

The following points represent the researcher's normative position on the selection of beginner students for admission to schools of architecture based on his reflection on the research presented in this thesis:

1. Academic programmes with explicit and distinct expectations and specialised outcomes, such as those in architecture, require specific, as opposed to general, approaches to student selection.
2. At present and in the South African context, school results cannot serve as an absolute and equitable assessment tool as vast disparities and ongoing socioeconomic inequalities are intrinsically reflected in the systems and outcomes of basic education.
3. The outcomes of selection procedures can be optimised if they are designed to have a positive interrelationship and specific compatibility with the mode and means of teaching and learning in the academic programme for which students are being selected.
4. Selection for admission to a school of architecture should be aligned to the normative position and core values of that school.
5. Selectors are required to be well versed in the normative position and core values of a school of architecture.
6. Selection is a process, not a product. The selection of beginner students acts as threshold to systems of architectural education and subsequently to practice and research. Therefore it is a

crucial introduction to the discipline and all its tenets. It should thus not be seen as a means to an end, but rather as a process of introduction and induction. In this sense the studio-practice continuum should be extended to, and endorsed during, selection.

7. Selection can contribute meaningfully to the academic endeavours of a school of architecture as a cost-of-production item over the longer term. Therefore the resources invested into the selection project can indirectly be redeemed over time.
8. Just as in design, there is no instant fix or possible shortcut to the process of selecting beginner students for admission to schools of architecture. As indicated in the international and national surveys, it is imperative that multiple assessment tools are considered during the selection of beginner students for admission to schools of architecture and other disciplines will surely benefit from exploring the options beyond the norm of an applicant's academic record.
9. Even if they are unsuccessful in selection, applicants should ideally be offered the opportunity to grow in a meaningful way and to learn more about themselves, the institution, the programme they applied for and the possible professional outcomes thereof.
10. Selectors must take responsibility for their decisions. This implies that those who are responsible for the teaching and academic progress of a cohort should be involved in their selection. This does not exclude other members of staff from the process or the shared responsibility thereof.
11. Within reason, competition can be healthy as part of a selection process as it may serve to motivate applicants and give successful applicants a sense of achievement and a positive attitude.
12. As in design, context should be considered as a vital and qualitative informant during selection. First access, then assess.
13. It is near impossible to accurately predict the future academic trajectory of a prospective student of architecture as the design studio is a richly stimulating learning environment. Predictions cannot, in absolute terms, quantify individual students' future trajectories of growth, discovery, unprogrammed self-learning and the realisation of their potential, whether patent or latent.

7.5. RECOMMENDATIONS

From the critical engagement with the foregoing research and after reflection the following criteria are suggested as best practice in order to measure the validity and efficacy of selection procedures, regardless of the academic programme for which students are selected:

- Prioritising which assessment tools are contextually appropriate and aligning these with international norms and praxis;
- Assessing the suitability of the minimum necessary selection procedures for meeting the local contextual imperatives in respect of needs and the levels of expertise required;
- Accessing, through established academic and legislative frameworks, or establishing mechanisms for external scrutiny in order to verify validity;
- Activate institutional mechanisms for the purpose of research and the verification of primary indicators such as low rates of attrition and high rates of throughput.

It is recommended that the following opportunities for further research be explored:

- The focus of this study was the selection of beginner students in architecture. It is therefore recommended that a parallel investigation be conducted that will focus on the admission of students to the professional postgraduate programmes in architecture as provided for by the NQF at levels eight and nine as well as in the Architectural Profession Act (No. 44 of 2000).
- The study introduced, but only touched on, the role of revelatory and showcase portfolios in the selection of beginner students at South African schools of architecture. An enquiry into the possibilities of especially revelatory portfolios is worth exploring as an assessment tool for generative design studies and as means to estimate latent potential in aspects of visual communication.
- It would be of significant interest to investigate the possibility of local schools of architecture jointly assessing components of selection and some assessment tools, such as a special architecture test, in order to avoid the duplication that currently exists and the financial burden for applicants. While the strategy has seemingly been successful in countries like India and Sweden, it is thought that any such venture should still allow for idiosyncratic differentiation between institutions so as to avoid the pitfalls of it becoming another generalised assessment.
- It is hoped that the principles that were identified in this study could be extended to and applied in the selection of beginner students in other programmes of study.