11

Innovative Capstone Assessment Models Beyond the Thesis in Master's Psychology Programmes

*Sahaya G. Selvam**

Marist International University College, Nairobi, Kenya

*Corresponding author: selvamsdb@gmail.com

Introduction

Expected Competency Outcomes of Master's Degree

Globally, master's degree programmes are conceived as the second cycle of higher education. It is a liminal stage that lies between the bachelor's and doctoral degrees, often not having a clear identity (Breier et al., 2020). The Bologna Process that standardised tertiary level education in Europe since 1999 stipulated that the study leading to a master's degree should cover a duration of two years. It provided a wide scope for variety in the nature and the assessment of expected learning outcomes of master's degrees. In effect, there exist in Europe different models of master's degrees and various models of assessing the students (EUA, 2009). In general, the spirit of the Bologna Declaration (1999) was that higher education and research be fully responsive to both social change and scientific advancement.

This spirit was operationalised in terms of the expected competency outcomes of the second cycle of higher education in Europe by the Bergen Communique (2005). The Communique sees the master's level as extending and enhancing the outcomes of the first cycle while providing a basis 'for originality in developing and/or applying ideas, often within a research context'; the original contribution itself is expected to be achieved at the PhD level. The European vision of the outcomes of the master's level education was enumerated in more precise terms of abilities that include (Bergen Communique, 2005): integrating knowledge in order to arrive at coherent judgement about problems; applying the knowledge in solving problems in relatively new circumstances; reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements; communicating their knowledge and judgements to specialist and non-specialist audiences with clarity; and continuing to learn and update themselves in a self-directed and autonomous manner.

In a similar vein, the Indian National Higher Education Qualifications Framework (NHEQF, 2023, pp. 34–35), which regulates over 1,200 universities and over 46,000 affiliate colleges, stipulates that at the end of a master's academic programme, a graduate should be able to demonstrate adequate communication skills in listening, reading texts and presentation of concepts; excellent critical thinking skills in weighing evidence, analysing and synthesising data; sufficient

Psychology Teaching and Learning: Innovations, Trends, and Best Practices, First Edition. Edited by Aneesh Kumar and Rituparna Chakraborty. © 2026 John Wiley & Sons Ltd. All rights reserved, including rights for text and data mining and training of artificial intelligence technologies or similar technologies.
Published 2026 by John Wiley & Sons Ltd. Companion Website: xxxx

self-learning skills exhibited in continued acquisition of knowledge; research skills which consist in the ability to problematise, design research and collect, analyse and report data; and finally they be able to apply their knowledge and skills in real life problem solving.

Sampling from the African continent, the East African Qualifications Framework for Higher Education offers some specifications that are similar to the Bergen Communique (2005). According to this framework (East African Community, 2015, pp. 27–28), the purpose of the master's degree is to qualify 'individuals who apply an advanced body of knowledge in a range of contexts for research, professional practice or scholarship and as a pathway for further learning in a manner that may be largely self-directed or autonomous.' Moreover, the candidates for a master's degree are expected to demonstrate the application of knowledge and skills 'with creativity and initiative to new situations' coupled with a high level of 'personal autonomy and accountability' in planning and executing a substantial research-based project, a capstone experience and/or piece of scholarship or professionally focused project.

In the United States, the National Institute for Learning Outcomes Assessments (NILOA, 2014), based on feedback from over 800 institutions, developed a Degree Qualifications Profile (DQP), which had its first release in 2011, and it was further updated in 2014, and again in 2021. In the DQP of 2014, the outcomes are generally listed in five-large categories:

a. Specialised/Industry Knowledge: besides being able to explain relevant theories, 'interrogates the knowledge creation process and related sources, and illustrates both their applications and their relationships to allied fields of study or practice'.
b. Broad and Integrative Knowledge: while relating their field to other areas of knowledge, 'critically examines the relation of the field of study/industry/profession to the advancement of a more humane, just, and democratic society'.
c. Intellectual Skills: demonstrates advanced levels of 'analytic inquiry, use of information resources, engaging diverse perspectives, ethical reasoning, quantitative fluency and communicative fluency'.
d. Applied and Collaborative Learning: 'creates a project, paper, exhibit, performance or other demonstration reflecting the integration of knowledge acquired in practicum, work, community or research activities with knowledge and skills'.
e. Civic/Democratic and Global Learning: 'assesses and develops a position on a public policy question with significance in the field of study, by critically reviewing both scholarship and published or electronically posted positions and narratives of relevant interested groups'.

How are these outcomes assessed before a candidate is awarded a master's degree, particularly in psychology? Generally, with due consideration for the specific requirements of psychology, thesis and capstone models that include practicum and/or internship serve as critical components for assessing expected competency outcomes of master's programmes. A thesis typically involves a rigorous research project that contributes some knowledge to the field, requiring students to engage in sufficient literature review, collection of data, analysis of the same and reporting it in a coherent manner. A capstone project often has a broader scope emphasising the integration of knowledge and the practical application of the same in real-world contexts. And this can take a variety of forms, which is the subject of this chapter.

Capstone Experience and Research Project

What is a capstone experience? Literally, 'capstone' is the stone kept on the top-centre of an arch that holds the other stones together. It can also denote the crowning achievement of someone or the greatest part of something. In the academic context, the capstone experience offers the

students an opportunity 'to connect previous disjointed information gathered through a variety of methods and tactics employed over time in a classroom into a unified understanding of "the big picture"' (Edgar et al., 2011 p. 21). It crowns one's process of learning by putting it all together. The capstone experience could also be 'a culminating experience in which students are expected to integrate special studies with the major, and extend, critique, and apply knowledge gained in their major' (Wagenaar, 1993, p. 209; see also Boyer Commission on Educating Undergraduates in the Research University, 1998). More precisely, capstone projects in psychology have the potential to assess integration of knowledge and skills, particularly in the application of theory in practice, scholarship in generating some new knowledge or at least a creative use of existing knowledge and to build one's professional identity within their specific area of specialisation in psychology (Apgar, 2019; Wadkins & Miller, 2011).

A research project at the master's level is often referred to as a 'thesis' rather than a 'dissertation', because the purpose of a thesis is to demonstrate the understanding of a key concept, or a set of concepts, through research in one's area of specialisation and is not expected to make an original contribution to the field of knowledge as a dissertation does in a doctoral programme (Paltridge, 2002). Often, the terms thesis and dissertation are used interchangeably (Thompson, 2012). In any case, a research project typically involves a rigorous inquiry into a specific psychological phenomenon, grounded in empirical methods and theoretical frameworks. Students are expected to identify a research gap, design a study, collect and analyse data and contribute knowledge to the field. At the master's level, when a thesis is expected to be original, it is meant that it was carried out by the specific student and not submitted for another degree. The research project at the master's level serves to assess skills in designing research that entails collection, analysis and reporting of empirical data and/or a set of literature. The research component of a master's degree would distinguish it from a professional degree (Lai & Palmer, 2019), which is considered a terminal degree with no direct possibility for furthering in the academic pathway. In some systems, capstone assessment models are simply referred to as 'project-based assessments', whereby students are expected to demonstrate competencies through applied research or fieldwork (NHEQF, 2023). Though Healey and colleagues (2013) see capstone experiences as more suitable at the undergraduate level, there are many master's programmes that integrate capstone projects.

The use of capstone projects or thesis, and their combinations vary significantly across institutions. Most universities exclusively employ the thesis model. The thesis or dissertation model would be suitable more for master's degrees in theoretical and research-oriented psychology programmes. Others use only the capstone model; this is more common amongst executive or practice-oriented programmes, as may be the case in psychotherapy programmes (see, for instance, Columbia University, 2024). Still other institutions offer both options, allowing students to choose based on their career goals and interests. The flexibility in choosing between a thesis and a capstone project reflects a broader learner-centred educational philosophy aimed at catering to diverse student needs and professional aspirations within the field of psychology. A substantial number of programmes integrate both models concurrently. They demand that the learners undertake a capstone project, in addition to a separate or integrated research-based thesis (AQF, 2013).

In any case, in the words of Rowles and colleagues (2004, p. 14), the primary focus of a capstone project 'should be on synthesis, integration, or application of previously acquired knowledge rather than on acquisition of new knowledge or skills'. Thus, the capstone experience might include research, but research-based thesis alone cannot assess all the core competencies of a master's degree. In other words, the thesis is best understood as one form of capstone assessment, situated within a broader spectrum of integrative, summative learning experiences. In the form of a concrete output, the capstone experience could offer something that is directly beneficial to the student as a set of practical tools, while the outcome of such an exercise would be a better

integration of knowledge and skills for the student. For the programme leaders, it offers an opportunity to assess the expected competency outcomes of the master's programme in psychology, using a set of assessment rubrics applied on the concrete outputs.

Specific Objective of the Present Chapter

Against the above background, the aim of the present chapter is to enumerate briefly some of the most used methods of capstone projects, and to assess their suitability for assessing the expected competency outcomes of a master's degree in psychology as enumerated in the first section. The possibility for combining the research component with the capstone project is also considered in the different models that are presented.

Methodology of the Chapter

In generating the list of possible capstone projects for the second cycle of higher education in psychology, a search was carried out using the Boolean formula '(capstone project OR capstone experience) AND psychology' in e-resource platforms such as JSTOR and EBSCOhost which also included: ERIC (Education Resources Information Center) and Academic Search Complete, amongst 21 other databases. In selecting the models of capstone projects, focus was on its relevance for psychology, even if the academic article was generated in a context that was not directly in the field of psychology. Areas such as social work, nursing or other caring professions or health sciences were found to be relevant for psychology. Also, special attention was paid to the suitability of the capstone model for the master's degree level of education, which, as pointed out earlier, furthers one's learning at the bachelor's level to focus and 'mastering' the field, and at the same time prepares them for the doctoral level of studies where they have to make an original contribution to their field demonstrating a higher level of expertise.

Models of Capstone Experience

In what follows, different models of capstone projects are presented; they are described in brief, and their suitability for use in the master's degree in psychology is evaluated in terms of their prowess for creating an opportunity for the learner to demonstrate the expected competency outcomes of the programme. Some models may be suitable for a particular specialisation in graduate psychology and not for another. Special attention is also paid to models that focus on research and the objective of integration of knowledge and skills obtained in coursework of the master's degree.

Capstone Course

A capstone course is an overarching facilitated or taught module designed to offer general skills and knowledge pertinent to the area of study while integrating the learnings from other taught courses, and assessing learning outcomes through innovative assignments (Sum & Light, 2010). One of the major foci of the capstone course is to apply what is learnt in all taught courses (Wagenaar, 1993; Meadows, et al., 2021), through discussion and reflection. The capstone course can also assess transferrable skills such as critical thinking and communication skills using a set of rubrics (Wadkins & Miller, 2011; Bitz & Hair, 2024). It could assist in meaningful synthesis and assessment of the outcome of the programme, in the form of tutorials. Mostly used in undergraduate psychology

programmes (Bitz & Hair, 2024), capstone courses allow for greater possibilities in building critical thinking and communication skills. In master's programmes, there is often some difficulty in introducing yet another 'taught course'. However, the capstone course could be implemented in the form of group supervision, or tutorials, or seminars. The content of such a course could include reading and discussion around a critical book in psychology (for instance, Moghaddam, 2005; Kahneman, 2011), or a more contemporary publication relevant to the specialisation of the master's programme.

Comprehensive Examination

Comprehensive examination is another valid form of capstone experience (Oehrtman et al., 2010). The format may include written responses, oral defences (*viva voce*) or case analyses. The scope of comprehensive exams as a capstone experience for a master's degree in psychology could involve an integrative assessment of students' mastery of essential psychological concepts and skills, after the completion of taught courses and/or self-learning. These exams typically cover various domains, including research methodologies, theoretical frameworks and practical applications relevant to the field. For instance, some programmes may require students to demonstrate their knowledge through written essays or case studies that synthesise their learning from the entire curriculum (University of Northern Colorado, 2018). Other times, comprehensive exams may cover foundational approaches in psychology, such as developmental, cognitive and social psychology. The comprehensive exam, depending on the questions and tasks offered not only serves as a culmination of students' academic training but also prepares them for professional practice by ensuring they can integrate and apply their knowledge effectively.

Comprehensive exams have several advantages and challenges associated with different models. On the positive side, comprehensive exams provide a structured opportunity for students to synthesise their learning and demonstrate readiness for professional roles or further academic pursuits. They can highlight areas where students excel or need improvement, guiding future educational endeavours (University of Nebraska-Lincoln, 2023). Different models of comprehensive exams that were listed above could have different outcomes. Written exams, for example, allow for structured responses facilitating objective evaluation, but may lack opportunities for students to clarify ambiguities (Bernstein, 2020). Oral exams promote dialogue and real-time clarification of ideas, fostering communication skills; however, they may introduce bias on the part of the examiner(s) (Halonen & Dunn, 2019). In some comprehensive exams the themes are given out to students earlier, and they have time to prepare themselves on those themes and are asked to speak or write about one or two themes during the viva voce or a written exam. The limitation of this method is the lack of integration amongst the themes. Moreover, often the students prepare the essays and share them with each other ahead of the exam, in which case, the comprehensive exam will tend to test rote memory rather than creativity and problem-solving skills of individuals. While some students attempt to work out creatively their own answers, others would tend to borrow the ready-made answers (French et al., 2024). Therefore, while comprehensive exams serve as an essential capstone experience in psychology programmes, institutions must carefully consider their design to ensure the assessment of the learning outcomes.

Systematic Literature Review (SLR)

Selvam (2017, p. 41) defines systematic literature review (SLR) as 'an orderly manner of searching for academic literature, selecting relevant literature following a set of inclusion/exclusion criteria, analysing the selected literature, and reporting the findings' in such a way as to generate a set of

conclusions, even if they are hypothetical. These conclusions are based on patterns emerging from the selected literature (Grant & Booth, 2009). Bettany-Saltikov (2010) describes SLR as a scientific approach to research beginning with a specific review question, finds all relevant studies, evaluates their quality and summarises their results using a scientific methodology.

SLRs are common in medical sciences and psychology. In these fields of human knowledge, the procedure of meta-analysis attempts to statistically analyse quantitative data to identify, appraise and synthesise available evidence, and on that basis, propose some conceptual or hypothetical conclusions. Qualitative SLRs are also increasingly being employed in social sciences (Selvam, 2015). While quantitative SLRs help in evaluating the strength of available evidence in terms of numbers, the qualitative reviews are beneficial in systematically schematising emerging themes which are helpful for generating questionnaires and scales. For instance, an SLR can be structured around a narrowly defined question in cognitive psychology—such as the role of working memory in dual-task interference—allowing the student to critically appraise, synthesise and visualise findings across multiple empirical studies. It can help to generate hypotheses for future research.

SLR serves as a research project as well as a capstone experience due to its comprehensive and rigorous approach of synthesising existing research literature. This process demonstrates a student's ability to engage critically with literature. It equips them with essential skills for conducting independent research. This exercise particularly assesses research skills, analytical skills and writing skills. A well-written SLR can be considered publication in an academic journal. Therefore, SLR is a viable option in lieu of an empirical-data-based thesis at the master's level. To ensure that the outcome competences are demonstrated sufficiently by this exercise, the university should provide sufficient guidelines, training and support to the students (see for instance, NWU, 2024). Library and information services department at the university take responsibility to train students in searching literature.

Portfolio Model

A portfolio is a collection or a folder consisting of artefacts—summaries, reflection papers, reports, mind maps, conceptual models, verbatims, journal entries, doodling, etc., that provide a glimpse of the process that a student has gone through in their learning journey. More precisely, a learning portfolio is a dossier created by the learner to record and demonstrate learning bringing out understanding, analysis and creativity (Råde, 2014). It emphasises self-directed learning and critical thinking skills, enabling students to demonstrate their competencies in a holistic manner. Three key learning impacts can be identified from this pedagogic method (Chun-Burbank et al., 2023): (i) the consolidation of students' learning throughout the programme; (ii) professional identity development; and (iii) enhanced reflexivity. From a constructivist perspective, as a result of consolidation, integration and reflectivity in a portfolio, the students cocreate knowledge while exercising greater autonomy in learning. A portfolio could include annotated lab reports, field notes and reflections on experimental design.

In order to make the assessment process of portfolios easier for the learner and the lecturer, it is very important to provide some explicit guidelines and continued support to the learner: regarding what they are expected to demonstrate; what contents may be added to the portfolio; how the artefacts may be organised; and what rubrics will be used to assess the submissions (Birgin & Adnan, 2007). When the scope of this work is clear, most of the students are likely to enjoy this type of an assessment while they are directly and indirectly assimilating contents and skills in addition to other transferrable skills.

Service Learning

It is helpful to begin by teasing out what service learning (SL) is not (Selvam & Kiema, 2021). Firstly, SL is *not* an internship. Often internship, carried out towards the end of the formal studies, focuses on the practice of the skills related to one's discipline. Internships are more oriented towards one's profession and career and may not have any service component ingrained in them. Secondly, SL is *not* the sporadic social service that students at universities carry out, such as, cleaning a street, controlling the traffic flow in towns, visiting the older people in care homes or planting trees. On the contrary, SL is an extension of mainstream classroom learning. It is coordinated by the class lecturer. It is assessed, graded, credited and listed in the transcript of marks. Thirdly, SL is *not* another taught course that is introduced in the curriculum with the aim of inculcating a mentality of service amongst the learners. SL is more than classroom learning. In SL, classroom learning is integrated with social intervention. Social action and classroom learning are so enmeshed that the beneficiary of the intervention also becomes the teacher for the students who are involved in this project.

So, what *then* is SL? SL, which is distinct from sporadic community service and professional career-oriented internship, is a reciprocal relationship (Sigmon, 1979) between the learner and the beneficiary, in which, the learner is accompanied by the classroom lecturer to integrate the encounter with the beneficiary into their mainstream learning, by means of systematic reflection (Jacoby, 1996; Kolb, 2014). It consists in linking the classroom learning to the world of praxis and to learn from that practice. There is a triad in the dynamics of SL: the learner—who might work in a group with their peers, the lecturer and the beneficiaries of the service offered by the learners. To moderate this triad, there is a need to coordinate the community-based projects at the institutional level and to network with local organisations that have access to potential beneficiaries (Selvam, 2023). Practically, SL is implemented by selecting a certain number of courses/modules in an academic programme that lend themselves for SL; this is followed by training lecturers who are willing to integrate SL in their course on how to implement SL and assess the learning outcomes.

A good sample of integration of SL in psychology programmes is in the University of Pennsylvania's Master of Applied Positive Psychology (MAPP) programme. The assessment of the MAPP programme includes two components: the SL project and a capstone project that allows students to explore various topics related to positive psychology in practical contexts. The university website describes the SL programme as follows (University of Pennsylvania, 2024):

> Students in the MAPP programme at the University of Pennsylvania complete SL projects in partnership with nonprofits from around the world. Working in small groups, each SL project team studies the structure, mission and goals of a nonprofit organisation and develops a plan to advance the organisation's goals through the application of positive psychology. The SL projects give MAPP students the opportunity to apply their learning to real-world contexts and allow worthy nonprofit organisations who might not have the funds to hire positive psychology consultants to benefit from cutting-edge research in the field.

What is unique to Pennsylvania's MAPP programme is that it distinguishes the SL and the capstone project. However, it is also possible to integrate the two. For instance, research projects that directly benefit a community could be encouraged and to deliver a training programme using the output of the research (Boyer, 1996). This will avoid overloading the learners with assignments while equally facilitating integration and synthesis. Besides, since SL projects are often collaborative projects, they foster teamwork and communication skills essential for professional practice in psychology (Johnson & Johnson, 2009).

Conducting Needs Assessments in Community Settings

One way of operationalising SL is to conduct needs assessments in community settings. These are essential for identifying the psychological, social and behavioural needs of an organisation or a population. The process involves collecting data through surveys, interviews or focus group discussions, and analysing the gaps between current conditions and the desired state (Crosby & Noar, 2011). Rather than carrying out a research thesis that may have limited practical relevance to the student's profession or minimal impact on the communities they engage with, students can undertake a needs assessment. This approach not only develops their research skills but also provides a useful tool for the community and may offer the student concrete direction for their future professional path. It also helps them to identify 'market-gaps' that they can go on to fill by developing an intervention plan in terms of policy or training as part of their professional engagement (Brownson et al., 2009). Effective needs assessments provide critical information for designing interventions that are culturally relevant and contextually appropriate. As a response to the needs assessment, the graduate could develop products based on psychological interventions that are marketable, thus the graduate becomes an entrepreneur. This exercise of conducting a needs assessment qualifies as capstone project in that it integrates various skills, including skills in research, analysis, synthesis, communication, application of theory and planning for creating products.

Developing a Well-being Policy

Developing policy recommendations in psychology would involve using empirical evidence to influence decision-making processes at an organisation to improve psychological well-being of all those who are interacting with the organisation. This process typically begins with the identification of key issues in mental health and psychological and social well-being that require policy intervention (Brownson et al., 2009). Sometimes, policy development could be a follow-up on needs assessment reports. Researchers and/or practitioners engaged in policy development gather data, analyse existing policies and use their findings to draft recommendations that aim to improve outcomes for affected populations. Effective policy recommendations are grounded in research; they consider ethical implications, align with sound theories and models and integrate best practices (Patton et al., 2015). Policy development also involves collaboration with policymakers, stakeholders and advocacy groups to ensure that proposed changes are feasible and have the support necessary for successful implementation.

With the multidimensional process that policy development involves, it could serve well for a capstone exercise. It obviously brings together various outcome competencies of a graduate programme in psychology. That is why, as part of the capstone course in master's degree in forensic psychology offered by the Northcentral University in California, US, explicitly tasks students with conducting a professional assessment of an institution related to their study (correctional home or mental health institution) and to develop intervention strategies (Northcentral University, 2025).

To achieve these outcomes, it is important for the learner to choose the context of policy development that aligns with their area of specialisation. For instance, a student of child psychology could be engaging as a volunteer with a child-care centre in an economically deprived area or a rural context where a safeguarding policy may be lacking and assess their safeguarding systems and processes and develop a policy document for improving child safety and well-being. Such an exercise could offer the learner, upon graduation, a profession as a consultant in carrying out needs assessment and developing policy frameworks, as is the case in MSc programme of applied psychology at the University of Edinburgh (University of Edinburgh, 2025).

Development of a Training or Intervention Manual

Designing effective intervention programmes in psychology involves a systematic process of identifying problems, setting goals and selecting appropriate strategies to address the needs of a specific population. Interventions may focus on mental health issues or strategies to improve well-being, and are based on psychological theories, evidence-based practices and cultural considerations (Kazdin, 2017). Such programmes are crucial in applied psychology settings, where the goal is to improve individuals' or communities' psychological well-being through structured support.

To ensure rigour and transparency in the process of developing a psychological intervention manual whose content is evidence-based and theory-laden, and whose methodology is also based on sound pedagogical psychology, it would be necessary to follow a three-step process (very similar to WHO, 2021):

a. *Concept Paper:* as a first step, under the guidance of a tentative supervisor, the student is required to develop a concept paper (about 1500 to 2000 words in length) that clearly provides the background to the problem, stating the objectives of the programme, arguing the rationale for the project and delineating a possible summary content of the training/intervention programme. This is to be approved by the academic team of the department. After which the supervisors are confirmed.

b. *Project Proposal*: with the assistance of the supervisors, the student goes on to submit a 15,000-word project proposal. The proposal could be developed in three chapters: Introduction (providing the background to the problem, problem statement, objectives of the project), Literature Review (providing a review of theoretical and empirical literature related to the area of intervention), Method (a detailed *modus operandi* of the training programme, the training pedagogical model, an outline of the themes of the sessions of the training and the outline of a typical session). This proposal could be assessed and approved by a panel of two examiners.

c. *Final Project*: finally, the student develops the actual training manual in which the detailed sessions of the intervention are included as the fourth section, to which the three chapters previously developed are added. Prior to submission, time permitting, a pilot training session could be conducted amongst a select target group to ascertain the feasibility of the implementation of the programme.

These standards and guidelines do not have to be interpreted and applied in a monolithic manner. Variety in its implementation could produce a community of graduates with a diversity of aptitudes and competencies. The variety is to be encouraged in the content of specific competencies and not in its degree or standards. Moreover, if the objective of a capstone experience is to assist the student to integrate what they have learnt throughout the course of the academic programme (Wagenaar, 1993) into a unified vision of 'the big picture' (Edgar et al., 2011, p. 21), then it can be achieved in a variety of ways.

Action Research

Action research involves the process of actively participating in an organisation or a community's transformation while conducting research. In other words, action research is an intervention-based study which supports positive social change while still contributing to knowledge generation within the field (Brydon-Miller, 1997). As described in the previous section, the intervention itself is developed out of research, and its impact is also examined in a systematic manner. Sometimes this method is known as 'participatory action research'. Participatory action research encourages

researchers to immerse themselves in the programme or intervention that they are running and studying. They join with the community in a collaborative manner to address specific community needs or to work towards enhancing the quality of life and well-being for a particular community (Baum et al., 2006). In this way, it is also a model of SL.

Whatever be the intervention in action research, at the end of it there is a need to report the process. In order to write-up the report, data needs to be gathered by employing various methods, such as field notes by the researcher (reflexive notes), and/or participatory observation by an external observer, or questionnaires to the members of the intervened group, or interviews amongst the members or 'stakeholders' of the intervened group. In action research, there is a deliberate attempt to involve participants as a way of promoting change and as a device to reduce the social distance between researcher and the subjects of study (Kagan, 2012). Ethical considerations are to be upheld in order to ensure transparency, respect for participants and ethical handling of data. In summary, action research is a collaborative and iterative approach to research that focuses on practical problem solving and community engagement.

Action research could bring together several of the capstone exercises mentioned above, besides the integration of research itself: needs assessment, SL and development of intervention. As such it justifies for a viable capstone exercise for a master's degree in psychology because it offers a context for examining the expected competency outcomes of the programme: integration of knowledge and skills, problem solving, research skills and communication skills (see Dancis et al., 2023). An assessment rubric, based on the expected competency outcomes, will ensure the rigour that is necessary for the integration of action research as a capstone exercise for a postgraduate programme.

Conclusion

Taken together, it is necessary to recognise that not all capstone models are equally suited for every area of specialisation within psychology. Some models, such as the SLR or comprehensive examination, lend themselves well to theory-oriented or research-intensive subfields. Others, like portfolio or SL, are more appropriate in practice-based or person-centred specialisations. Table 11.1 provides a general mapping between capstone assessment models and subfields in psychology, based on the predominant competencies emphasised in each domain. This mapping is intended as a guideline rather than a prescription, allowing programme leader to adapt summative assessments according to student needs, institutional goals and disciplinary orientations.

Focusing on capstone projects, this chapter has attempted to argue that it may not be fair to centre the summative assessment purely on the final thesis project that involves an empirical study (see Råde, 2014). After all, not all master's graduates in psychology are likely to become full-time researchers or seek an academic career. Moreover, in Bloom's Taxonomy, which provides the framework for assessing expected learning outcomes of any academic programme, applying and creating are higher order cognitive skills which can be assessed by means of capstone projects (Krathwohl, 2002)

Working from that premise, the chapter has presented a lengthy collection of alternative methods of capstone exercises. It has evaluated their suitability for summative assessment in various specialisation areas of psychology. The proposed methods of capstone projects offer an ample opportunity to test higher order competency outcomes amongst the learners. It has argued that if the research-based thesis model in isolation, then it runs the risk of not assessing the expected learning outcomes of the programme.

Table 11.1 Capstone assessments and their best fit.

Capstone model	Suitable psychology subfields	Assessment opportunity of core competencies
Capstone course	Cognitive, clinical, educational, Experimental psychology	Provides a broad knowledge-framework
Comprehensive exam	More theory-based subfields	Encourages integrative learning and breadth across core areas
SLR	Cognitive, developmental psychology and behavioural neuroscience	Supports evidence synthesis; tests research skills
Portfolio	Counselling, clinical, educational, organisational	Promotes reflexivity, self-assessment and competence tracking
SL	Community, counselling, educational, positive psychology	Combines social engagement with theoretical reflection; values experiential input
Action research	Developmental, organisational psychology	Engages research skills, and application of knowledge
Needs assessment	Organisational, developmental, health, community, forensic psychology	Encourages systems thinking and real-world application; ideal for policy impact, tests research skills
Policy development	Organisational psychology, positive psychology	Offers opportunity of application of knowledge
Training or intervention manual	Clinical, educational, positive, organisational, applied psychology	Focused on application and communication of knowledge

It is a given that the mode of summative assessment has to be discipline-sensitive. Therefore, the department needs to make choices from amongst the alternative models proposed in this chapter in line with the specificities of the subject matter of the degree and the vision and mission of the institution and the academic programme. In the implementation process, policy frameworks and guidelines need to be developed for faculty members and external examiners to embrace the scope of the capstone project in relation to thesis and the internship. An integrated summative assessment is likely to influence the learners in their choice of the area of specialisation, the programme of study and the department itself.

Reflection Questions for Authors

1. Which capstone models discussed in this chapter align most closely with the specialisations offered in your psychology department?
2. What challenges do your students face in demonstrating 'integration' of learning, and how can capstone projects better facilitate this?
3. Which models may unintentionally disadvantage students with fewer professional or community networks?
4. How might a department-wide policy on capstone projects foster innovation while maintaining academic standards?

References

Apgar, D. (2019). Conceptualization of capstone experiences: Examining their role in social work education. *Social Work Education*, *38*(2), 143–158. https://www.tandfonline.com/doi/full/10.1080/02615479.2018.1512963

AQF (2013). *The Australian qualifications framework*. Australian Qualifications Framework Council. Retrieved 3 July 2025, from https://www.aqf.edu.au/framework/australian-qualifications-framework

Baum, F., MacDougall, C., & Smith, D. (2006). Participatory action research. *Journal of Epidemiology and Community Health*, *60*(10), 854–857. https://doi.org/10.1136/jech.2004.028662

Bergen Communique. (2005). The European higher education area - achieving the goals. *Communiqué of the conference of European ministers responsible for higher education*, Bergen.

Bernstein, D. A. (2020). Promoting critical thinking by teaching, or taking, psychology courses. In R. J. Sternberg & D. F. Halpern (Eds.), *Critical Thinking in Psychology* (2nd ed.). Cambridge University Press. https://doi.org/10.1017/9781108684354

Bettany-Saltikov, J. (2010). Learning how to undertake a systematic review: Part 2. *Nursing Standard*, *24*(51), 47–58. https://doi.org/10.7748/ns2010.08.24.51.47.c7943

Birgin, O. & Adnan, B. (2007). The use of portfolio to assess student's performance. *Journal of Turkish Science Education, 4*(2), 75–90.

Bitz, K. L. & Hair, R. (2024). An innovative approach to the psychology capstone course. *Teaching of Psychology, 52*(4), 391–396. https://doi.org/10.1177/00986283241268723 (Original work published 2025).

Bologna Declaration (1999). *Joint declaration of the European ministers of education*, Bologna. Retrieved 3 July 2025, from https://www.upv.es/upl/U0450829.pdf

Boyer Commission on Educating Undergraduates in the Research University (1998). *Reinventing Undergraduate Education: A Blueprint for American Research Universities*. State University of New York. Retrieved 3 July 2025, from https://files.eric.ed.gov/fulltext/ED424840.pdf

Boyer, E. L. (1996). The scholarship of engagement. *Journal of Public Service & Outreach, 1*(1), 11–20.

Breier, M., Herman, C., & Towers, L. (2020). Doctoral rites and liminal spaces: Academics without PhDs in South Africa and Australia. *Studies in Higher Education*, *45*(4), 834–846. https://doi.org/10.1080/03075079.2019.1583727

Brownson, R. C., Fielding, J. E., & Maylahn, C. M. (2009). Evidence-based public health: A fundamental concept for public health practice. *Annual Review of Public Health*, *30*, 175–201. https://doi.org/10.1146/annurev.publhealth.29.020907.090615

Brydon-Miller, M. (1997). Participatory action research: Psychology and social change. *Journal of Social Issues*, *53*(4), 657–666. https://doi.org/10.1111/0022-4537.00042

Chun-Burbank, S., Payne, K., & Bartlett, C. (2023). Designing and implementing an ePortfolio as a capstone project: A constructivist approach. *International Journal of ePortfolio, 13*(1), 11–20.

Columbia University (2024). *Social-organizational psychology*. Retrieved 3 July 2025, from https://www.tc.columbia.edu/catalog/academics/departments/organization-and-leadership/social-organizational-psychology/

Crosby, R. A. & Noar, S. M. (2011). What is a planning model? An introduction to PRECEDE-PROCEED. *Journal of Public Health Dentistry*, *71* (Suppl 1), S7–S15. https://doi.org/10.1111/j.1752-7325.2011.00235.x

Dancis, J. S., Coleman, B. R., & Ellison, E. R. (2023). Participatory action research as pedagogy: Stay messy. *Journal of Participatory Research Methods, 4*(2). https://doi.org/10.35844/001c.75174

East African Community (2015). *East African qualifications framework for higher education*. Arusha: East African Community.

Edgar, D. W., Edgar, L. D., & Miller, J. D. (2011). Putting it all together! Capstone experiences and projects. *The Agricultural Education Magazine*, *83*(4), 21–22.

European University Association (EUA) (2009). *Survey of master degrees in Europe: Results of the EUA master programmes in Europe project*. Retrieved 8 Dec 2025, from https://ruepep.org/wp-content/uploads/2021/06/2009-survey-of-master-degrees-in-europe-results-of-the-eua-master-programmes-in-europe-project.pdf?utm_source=chatgpt.com

French, S., Dickerson, A., & Mulder, R. A. (2024). A review of the benefits and drawbacks of high-stakes final examinations in higher education. *Higher Education: The International Journal of Higher Education Research, 88*(3), 893–918. https://doi.org/10.1007/s10734-023-01148-z

Grant, M. J. & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal, 26*(2), 91–108. https://doi.org/10.1111/j.1471-1842.2009.00848.x

Halonen, J. S. & Dunn, D. S. (2019). *The psychology major's companion: Everything you need to know to get where you want to go* (2nd ed.). Worth Publishers.

Healey, M., Lannin, L., Stibbe, A., & Derounian, J. G. P. (2013). *Developing and enhancing undergraduate final-year projects and dissertations: A National Teaching Fellowship Scheme project publication*. Higher Education Academy.

Jacoby, B. (1996). *Service-learning in higher education: Concepts and practices*. Jossey-Bass Publishers.

Johnson, D. W. & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational researcher*, *38*(5), 365–379. https://doi.org/10.3102/0013189X09339057

Kagan, C. (2012). *Participatory action research and community psychology*. In B. Zani (Ed.) Psicologia di comunità: Prospettive, idee, metodi. Carocci Editore. Retrieved 3 July 2025, from http://www.compsy.org.uk/PAR%20kagan%20final%20for%20web.pdf

Kahneman, D. (2011). *Thinking, fast and slow*. Penguin.

Kazdin, A. E. (2017). *Research design in clinical psychology* (5th ed.). Cambridge University Press.

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. FT press.

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into Practice*, *41*(4), 212–218. https://doi.org/10.1207/s15430421tip4104_2

Lai, Y. -L. & Palmer, S. (2019). Psychology in executive coaching: An integrated literature review. *Journal of Work-Applied Management, 11*(2), 143–164. https://doi.org/10.1108/JWAM-06-2019-0017

Meadows, A. M., Rose, M., Burns, L. R., & Bellamy, K. (2021). Using discussion to teach capstone courses in psychology. *Creative Education*, 12, 122–139. https://doi.org/10.4236/ce.2021.121009

Moghaddam, F. M. (2005). *Great ideas in psychology: A cultural and historical introduction*. Oxford: Oneworld.

NHEQF (2023). *National higher education qualifications framework*. https://www.ugc.gov.in/pdfnews/2990035_Final-NHEQF.pdf

Northcentral University (2025). *PSY-6515 - capstone in threat assessment and management [Course description]*. In Master of Science in Forensic Psychology Catalog. Retrieved 3 July 2025, from https://catalog.ncu.edu/preview_course_nopop.php?catoid=65&coid=93848

NWU (2024). *Library and information services*. https://library.nwu.ac.za/research-literature-review

Oehrtman, S. J., Smolen, D., Hoblet, K., & Phillips, K. A. (2010). The comprehensive examination: A viable master's of science in nursing capstone course. *Journal of Professional Nursing*, *26*(6), 360–365. https://doi.org/10.1016/j.profnurs.2010.08.003

Paltridge, B. (2002). Thesis and dissertation writing: An examination of published advice and actual practice. *English for Specific Purposes*, *21*(2), 125–143. https://doi.org/10.1016/S0889-4906(00)00025-9

Patton, M. Q., McKegg, K., & Wehipeihana, N. (2015). *Developmental evaluation exemplars: Principles in practice*. Guilford Press.

Råde, A. (2014). Final thesis models in European teacher education and their orientation towards the academy and the teaching profession. *European Journal of Teacher Education*, *37*(2), 144–155. https://doi.org/10.1080/02619768.2013.858692

Rowles, C. J., Koch, D. C., Hundley, S. P., & Hamilton, S. J. (2004). Toward a model for capstone experiences: Mountaintops, magnets and mandates. *Assessment Update, 16*(1), 1–2. http://onlinelibrary.wiley.com/doi/10.1002/au.161/full

Selvam, S. G. & Kiema, B. (2021). Educating to the spirit of Fratelli Tutti through service learning: An African perspective. In M. Beatriz Isola & A. Peregalli (Eds.), *Service-learning pedagogy and the teachings of the Catholic church* (pp. 73–92). Buenos Aires: CLAYSS. Retrieved 3 July 2025, from https://www.sahayaselvam.org/wp-content/uploads/2022/01/Sel-Brenda-SL-and-Fratelli-Tutti-2021.pdf

Selvam, S. G. (2015). Positive psychology's character strengths in addiction-spirituality research: A qualitative systematic literature review. *Qualitative Report*, *20*(4), 376–405. https://doi.org/10.46743/2160-3715/2015.2116

Selvam, S. G. (2017). *Empirical research: A study guide*. Pauline Publications.

Selvam, S. G. (2023). The role of university president in institutionalisation of service learning in higher education. In J. Chantal., et al. (Eds.), *Institutionalization of Service-Learning in Higher Education* (pp. 199–219). Buenos Aires: CLAYSS.

Sigmon, R. (1979). Service-learning: Three principles. *Synergist*, *8*(1), 9–11.

Sum, P. E. & Light, S. A. (2010). Assessing student learning outcomes and documenting success through a capstone course. *Political Science & Politics*, *43*(3), 523–531. https://doi.org/10.1017/S1049096510000764

Thompson, P. (2012). Thesis and dissertation writing. In B. Paltridge & S. Starfield (Eds.), *The handbook of English for specific purposes* (pp. 283–299).

UK NARIC—National Recognition Information Centre for the United Kingdom (2005). *Recognition of Bologna master's degrees in Europe*. https://ehea.info/Upload/document/members/united_kingdom/National_Report_UK_EWNI_2005_572462.pdf

University of Edinburgh (2025). *MSc applied psychology (Healthcare) for children and young people [Programme description]*. Health in Social Science, University of Edinburgh. Retrieved 3 July 2025, from https://health.ed.ac.uk/study/postgraduate-taught/msc-applied-psychology-healthcare-for-children-and-young-people

University of Nebraska–Lincoln (2023). *Masters comprehensive exam*. Retrieved 3 July 2025, from https://cehs.unl.edu/edpsych/current-student-support/masters-comprehensive-exam/

University of Northern Colorado (2018). *Comprehensive exams*. Retrieved 3 July 2025, from https://www.unco.edu/cebs/psychological-sciences/current-students/masters-students/comps.aspx

University of Pennsylvania (2024). *Service learning projects*. Retrieved 3 July 2025, from https://www.lps.upenn.edu/degree-programs/mapp/curriculum/service-learning-projects

Wadkins, T. A. & Miller, R. L. (2011). Structuring the capstone experience in psychology. In R. L. Miller, E. Amsel, B. Marsteller Kowalewski, B. C. Beins, K. D. Keith, & B. F. Peden (Eds.), *Promoting Student Engagement*, *1*, 95–102. Retrieved 3 July 2025, from https://psycnet.apa.org/record/2012-25034-014

Wagenaar, T. C. (1993). The capstone course. *Teaching Sociology*, *21*(3), 209–214. https://doi.org/10.2307/1319011

World Health Organization (2021). *Psychological first aid implementation guide: Protocols and training materials* (pp. 10–12). World Health Organization. Retrieved 3 July 2025, from https://iris.who.int/bitstream/handle/10665/376208/9789240087149-eng.pdf

Supplementary Resources

1. PRISMA template for reporting literature search and selection in carrying out SLR: Retrieved 3 July 2025, from https://www.prisma-statement.org/prisma-2020-flow-diagram?utm_source=chatgpt.com
2. Checklist for implementing SL: Retrieved 3 July 2025, from https://jces.ua.edu/articles/10.54656/XKNT9046
3. Rubric for assessing learning portfolio: Retrieved 3 July 2025, from https://eric.ed.gov/?id=ED440127
4. A sample of a master's degree in psychology that integrates a variety of capstone projects: Retrieved 3 July 2025, from https://www.lps.upenn.edu/degree-programs/mapp/curriculum/capstones
5. A practical guide for work-integrated learning: Retrieved 3 July 2025, from https://heqco.ca/wp-content/uploads/2020/03/HEQCO_WIL_Guide_ENG_ACC.pdf