Investigating Satisfaction of B.Ed and Diploma Completers through Q Methodology 2024-2023

CAEP's Standard R4.3: Satisfaction of Completers: The provider demonstrates program completers perceive their preparation as relevant to the responsibilities they encounter on the job, and their preparation was effective.

Note: In alignment with CAEP Standard R4.1, this report presents ***partial*** evidence of completer effectiveness, based on a Q methodology study exploring the satisfaction and perceived readiness of B.Ed. and Diploma graduates one year post-completion. While this study does not directly measure completer impact on P–12 student-learning growth or their effectiveness in applied settings, it provides important insights into how well our preparation programs align with the real-world demands of the teaching profession. Additional data collection is underway to directly address R4.1 (a) and (b).

Introduction

To investigate the satisfaction of the EPP's initial-level preparation programs (B.Ed. and Diploma), the unit conducts a Q methodology study, examining completers one year after graduation, provided they have entered the teaching workforce. This research aims to explore whether the EPP's completers perceive their preparation as relevant to the responsibilities they encounter in their roles and whether their preparation meets their professional needs. Understanding the satisfaction of completers is crucial in assessing the quality and relevance of initial teacher education programmes (Mayer et al., 2017; Rowan et al., 2015). While institutions design these programmes with specific learning outcomes and pedagogical goals, completers' experiences can provide essential insights into the strengths and limitations of these programmes in practice (Canrinus et al., 2019). Therefore, exploring completers' satisfaction with their preparation journey and their perceived readiness for professional roles offers valuable feedback on how well the EPP's intended outcomes align with the practical demands of teaching. This evaluation not only assesses how well their training aligns with their job expectations but also deepens the unit's understanding of the preparedness and confidence completers feel as they transition into the teaching profession (Goh et al., 2020). Q methodology is particularly well-suited to exploring completers' satisfaction, as it provides a systematic approach to capturing their subjective perspectives and identifying areas for improvement in the preparation programme.

Why Q methodology?

Described as a *qualiquantological* method (Stenner & Rogers, 2004), Q methodology combines the strengths of both qualitative and quantitative research approaches (Dennis & Goldberg, 1996). Watts and Stenner (2012) traced the origins of Q methodology to 1935, when it was first introduced by British physicist and psychologist William Stephenson in a letter to *Nature*. In his letter, Stephenson proposed an innovative modification of Charles Spearman's traditional factor analysis, typically used in R methodology (e.g. surveys and questionnaires), which analyses patterns of association between measured variables. Conventional factor analysis measures a population of *n* individuals across *m* tests, producing intercorrelations for those variables that are then subjected to factor analysis (Stephenson, 1936). However, Stephenson suggested reversing this process by analysing *n* tests, each ranked by *m* individuals. In this way, Q methodology adopts an 'inverted' factor analysis technique, with the main purpose of studying human subjectivity (Stenner & Rogers, 2004). Subjectivity refers to 'the things that we say — silently to ourselves as in reveries or publicly to others as in conversation — from our own vantage point, and excluding that which is objective' (Brown, 2019, p. 565). Q methodology can therefore be considered a by-person factor analysis, differing from the by-variable factor analysis used in R methodology. Its primary advantage lies in its ability to correlate subjects using factor analysis, providing insights into the similarities and differences in viewpoints regarding a specific issue. Hence, the EPP selected Q methodology for its unique ability to capture the individualised viewpoints of completers, offering an understanding of

their satisfaction with the programme. This methodology effectively highlights the diverse perspectives of completers, providing valuable insights into how their experiences align with the intended outcomes of the EPP.

Conducting Q methodology involves five main stages (Brown, 1980). The ***first*** stage focuses on defining a concourse, which refers to the range of communication and discourse surrounding a particular topic. A concourse encompasses an infinite number of potential subjective opinions that individuals might express about an issue or topic. The ***second*** stage involves developing a Q-sample, which is a set of statements representing the complexity of the concourse in a limited number. This can be done by examining each item in the concourse to eliminate repetitive, marginal, idiosyncratic, or ephemeral statements (Lo Bianco, 2015). The ***third*** stage involves defining the P-set, which refers to the participants of the research. The key principle guiding the selection of participants in Q research is their relevance to the topic under investigation (Watts & Stenner, 2012). In the ***fourth*** stage, participants are invited and instructed to sort the Q-items, each written on separate cards, using a distribution grid according to their personal subjective viewpoints (i.e. doing the Q-sorting). The type and shape of the distribution grid (whether forced choice or free distribution) are determined by the researchers. Still, 'most Q methodologists choose a fixed distribution because it represents the most convenient and pragmatic means of facilitating the item ranking process' (Watts & Stenner, 2012, p. 89). Regardless, the grid is arranged with a fixed number of columns, each corresponding to a degree of agreement or disagreement (e.g., +3 to -3), typically labelled from 'most disagree' to 'most agree,' with a neutral middle section. The number of rows corresponds to the number of Q-items to be sorted. ***Finally***, the collected Q-sorts, which represent participants' subjective perspectives, are analysed using statistical methods such as correlation and inverted factor analysis, through specialised software (e.g., Pqmethod). This process uncovers the inter-subjective patterns of beliefs shared among participants (Watts & Stenner, 2012). The results of this analysis in a Q study are interpreted as social narratives (Webler, Danielson, & Tuler, 2009). The way these steps were applied in this research is explained in the following section.

Research Design

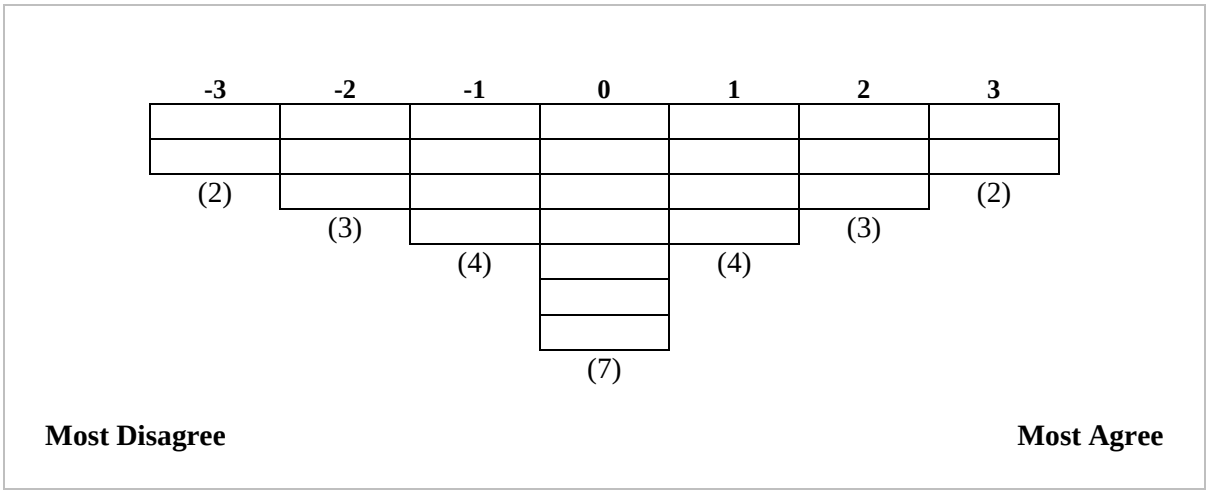
For this research, the concourse was developed based on CAEP's 10 InTASC standards. Several statements were crafted for each standard to explain and describe the competencies and skills of a College of Education candidate, resulting in a total of 45 statements.These statements were then reviewed to remove any repetition, refining the set of 25 Q-items. Then, an expert was consulted to review the Q-sample, leading to minor adjustments before it was finalised (see Appendix 1 for Q-sample).

Next, using records from the Office of the Associate Dean for Student Affairs, a list of recent completers was compiled, and they were contacted by phone to invite them to participate in the Q-sorting process, provided they had entered the teaching profession. It is important to note that Q research does not require a large number of participants. In fact, Q research typically involves a smaller participant pool compared to R-methods such as surveys and questionnaires. Brown (1980) argues that 'all that is required are enough subjects to establish the existence of a factor for purposes of comparing one factor to another' (p. 355). Neff (2014) supports this by noting that the core premise of Q methodology is that, within a community, there are fewer distinct ways of thinking about a topic than there are individuals. In this study, 35 completers from various specialisations and programmes who had recently entered the teaching workforce agreed to participate (see Appendix 2 for Completers' Demographics). Selected completers participated in online interviews for the Q-sorting activities using two digital platforms concurrently—Zoom (Banyai, 1995) and the Q Sortware website (Pruneddu, 2013). Zoom provided the necessary videoconferencing capabilities, offering a virtual alternative to traditional face-to-face data collection methods. This platform enabled real-time interaction, allowing for immediate engagement, answering questions and offering clarifications as needed. Simultaneously, the Q Sortware website, specifically designed for online Q methodology, facilitated the Q-sorting tasks with its user-friendly, interactive features. During this synchronous online sorting activity, completers were first asked to categorise the 25 Q-items into three boxes — agree, disagree, or neutral — based on the following instruction, which served as an equivalent to a research question in R methodology: '*Throughout your journey at the CED, the college strategically*

planned and implemented actions to prepare you for your professional role(s), ensuring you felt confident and ready to make a meaningful impact on Qatar's P-12 student learning. The following statements reflect various aspects of this planned preparation. Which of these statements do you agree with, which do you disagree with, and which do you feel neutral about?'

Completers carried out this task by dragging and dropping statements into one of three boxes: agree, disagree, or neutral. Next, they were instructed to refine their responses regarding their levels of agreement or disagreement, based on the following written instruction: '*Please be more specific regarding your level of agreement or disagreement and sort the statements to best reflect these levels.*' Completers then organised their responses using a digital 7-point forced quasi-normal distribution grid (see Figure 1). Upon completing the Q-sorting activity, completers were encouraged to elaborate on their +3 and -3 choices, with their responses transcribed for further analysis. Finally, completers were asked to provide demographic information.

Figure 1
Grid



Analytical Procedures

The resulting 35 Q-sorts were analysed using PQ-Method software (Schmolck, 2014), focusing on overall correlations and weighing individual statements and groups of statements. *First*, a centroid factor analysis — a factor extraction procedure that identifies repeated patterns by performing a by-person factor analysis — was conducted. This was followed by a varimax rotation to account for the maximum amount of opinion variance (Watts & Stenner, 2012). After eliminating factors with insufficient statistical strength, a two-factor solution was chosen (i.e., F-1 and F-2 were extracted), explaining 38% of the opinion variance. Brown's (1980) equation was then used to calculate the significance of each Q-sort at the $p < 0.01$ level: 2.58 x (1 ÷ √number of items in the Q-set). In this study, factor loadings of at least +/- 0.516 were significant at the $p < 0.01$ level.

Results

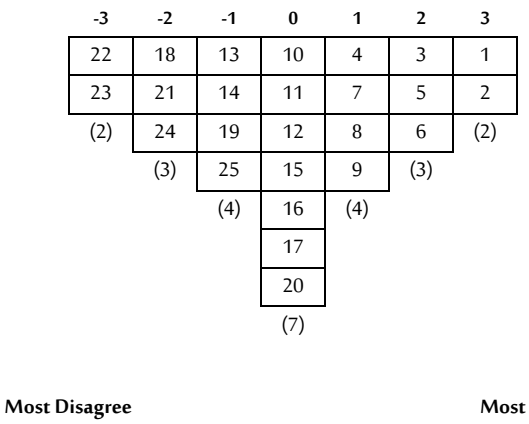
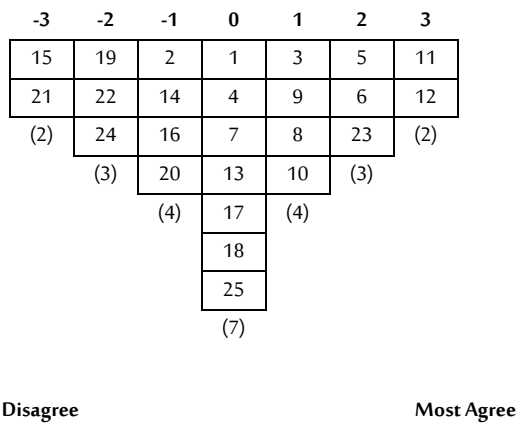
As previously mentioned, two factors (F1 and F2) were extracted, each reflecting a distinct social perspective held by a group of completers regarding their satisfaction with their college preparation. No confounded loadings were found. Table 1 summarises the emerging factors, including the variance explained and significant loadings, while Q-sort values for the corresponding items are detailed in Appendix 1. Figures 2 presents the factor arrays for the two emerging factors, illustrating the composite ranking of Q-items based on the merged perspectives of participants associated with each factor. A factor array represents the shared viewpoint of a group, synthesised from the individual Q-sorts loaded on a specific factor (See Appendix 3).

In the sections that follow, the two emerging factors are qualitatively presented and discussed. Following Stenner and Rogers (2004), these factors are assigned labels encapsulating the general sentiment of the completers. That is, each factor represents a distinct social narrative shared by a group of completers, and these factors, or social narratives, were subsequently labelled to reflect the emerging themes capturing the completers' overall sentiment, as mentioned in Figure 2. Additionally, the following discussion incorporates Q-items and comments made by completers during the sorting activities. Q-item rankings are indicated by figures in brackets. For instance, in the case of F1, (Q-item 1: +3) signifies that Q-item 1 was ranked in the most agreeable position based on the merged average of all completers loaded on this factor, whereas (Q-item 22: -3) indicates that Q-item 22 was placed in the most disagreeable position.

Table 1
Quantitative Summary of Emerging Factors

Factor	**F1**	**F2**	**Null**	N= 35
Number of loadings	18	13	4	
% Explained variance	27	11		

Figure 2
Factor arrays for F-1 and F-2

F-1	F-2
Finding My Footing: Satisfied and Prepared But Not Settled	Learning the Ropes: Satisfied and Prepared but Challenged by Workplace Realities
	

F-1: Finding My Footing: Satisfied and Prepared But Not Settled

Eighteen completers loaded on F-1, comprising 2 males and 16 females. These completers ranged in age from 22 to 49 years, with all having graduated from the CED in 2023. These completers come from a variety of initial programmes, including both the Bachelor of Education (B.Ed.) and Diploma (Dip). Their specialisations span diverse fields such as **Physical Education** (2 completers, all B.Ed.), **Special Education** (3 completers: 1 B.Ed. and 2 Dip.), and **Secondary Education** (8 completers: 7 B.Ed. and 1 Dip.), with majors including Arabic Language, Mathematics, Biology, Chemistry, Social Studies and Science. Additionally, some completers come from the **Primary Education** programme (5 completers: 4 B.Ed. and 1 Dip.), specialising in areas such as Arabic Language, Science and Mathematics, and Early Childhood Education. This diversity highlights the wide range of educational backgrounds among the completers.

Completers loaded on this factor expressed a strong sense of satisfaction with the knowledge and skills they acquired and developed during their time in the EPP, as they embark on their professional journeys. They feel extremely confident and satisfied with their ability to recognise and support the cognitive, emotional and social growth of each of their students (Q-item 1: +3). This confidence extends to their capability in designing learning activities tailored to students' developmental stages and needs (Q-item 2: +3). They are also highly confident and deeply satisfied with their ability to differentiate instruction to meet the unique learning needs of diverse students (Q-item 3: +2), enabling them to apply inclusive practices that support students from various cultural and linguistic backgrounds (Q-item 4: +1). In the classroom, these completers express strong satisfaction with their competence in managing behaviour to create a positive and productive environment where students feel safe, respected and valued (Q-item 5: +2). This competence enables them to cultivate collaborative learning environments that foster student engagement and interaction (Q-item 6: +2), while also feeling well-prepared to address discipline issues in a constructive and supportive manner (Q-item 7: +1). Additionally, completers on this factor demonstrate satisfaction with their mastery of core concepts, reflecting a deep understanding of their subject areas (Q-item 8: +1). Building on this expertise, they confidently explain complex content in clear and accessible ways to their students (Q-item 9: +1). In short, their narrative reflects a comprehensive sense of readiness and professional competence as they transition into their teaching roles.

Still, completers loaded on this factor reported that they are not yet fully settled into their teaching roles, as many of them have only recently joined the profession, some as early as this semester. As a result, they have not yet had the opportunity to engage in ongoing professional learning that could enhance their teaching effectiveness (Q-item 22: -3). Also, this early stage of their careers means they are still familiarising themselves with their school environments and have not yet been able to collaborate with colleagues to the extent they would like, such as sharing strategies, planning lessons and creating supportive, consistent learning environments for their students (Q-item 23: -3). Although these completers have expressed confidence and satisfaction in their ability to differentiate instruction to meet the unique needs of diverse learners (Q-item 3: +2) and apply inclusive practices (Q-item 4: +1), they are still in the process of truly getting to know their students. For this, they have not yet fully incorporated individual students' interests and backgrounds into their lesson planning to maximise engagement (Q-item 18: -2). Consequently, they are not entirely confident in utilising the most effective instructional strategies to address the specific needs of each learner (Q-item 19: -1). Furthermore, as they continue finding their footing in the profession, these completers have also not yet begun reflecting on their teaching practices in a way that allows them to make adjustments based on student outcomes and feedback (Q-item 21: -2). This unfamiliarity extends to building relationships with families, as they have not yet established effective channels of

communication to foster home-school collaboration (Q-item 24: -2). Additionally, their newness to the profession has limited their ability to use data to identify gaps in student achievement and make instructional adjustments to help close those gaps (Q-item 13: -1). Another challenge noted by these completers is the highly centralised working environment in which they operate. As the majority of them are employed by the Ministry of Education and Higher Education, their schools often adhere to ministry-mandated assessments. This external control has hindered their confidence in using a variety of assessment methods to effectively measure student learning (Q-item 14: -1). In summary, while these completers are satisfied with their preparation and confident in several key skills and areas of knowledge gained through their journey at the CED, they are not yet able to see the positive impact of their teaching on their students (Q-item 25: -1). This is primarily because they are still in the process of settling into their roles, adapting to their new environments and navigating the demands of the profession.

F-2: Learning the Ropes: Satisfied and Prepared but Challenged by Workplace Realities

Thirteen completers loaded on Factor 2, comprising 11 females and 2 males. These completers represent a diverse array of specialisations pursued through the **B.Ed.** and **Dip** programmes. Their ages range from 23 to 41 years, and all graduated from the CED in 2023. Their fields of expertise include **Special Education**, with 2 completers (1 B.Ed. and 1 Dip.); **Secondary Education**, with 7 completers exclusively from B.Ed. programmes in majors such as Arabic Language, Biology, Social Studies, English Language, Chemistry and Islamic Studies; and **Primary Education**, with 4 completers across both B.Ed. and Dip. pathways, specialising in Arabic Language, English Language, and Science and Mathematics. This range illustrates the breadth of academic preparation among the completers.

These completers expressed a strong sense of satisfaction and confidence in their foundational skills and knowledge, acquired during their time at the CED. They articulated a strong belief in equitable education and demonstrated a commitment to ensuring that every student feels included and valued in the classroom (Q-item 11: +3; Q-item 12: +3). This commitment is complemented by their confidence in managing classroom behaviour to foster safe, respectful and productive learning environments (Q-item 5: +2). They also strongly highlighted their ability to cultivate collaborative spaces that engage students and promote interaction (Q-item 6: +2). Moreover, these completers demonstrated a readiness to collaborate with colleagues by sharing strategies and planning lessons to create supportive, cohesive learning experiences (Q-item 23: +2). They expressed confidence in their ability to differentiate instruction for diverse learners (Q-item 3: +1) and to explain complex concepts in ways that are accessible to their students (Q-item 9: +1). Their deep understanding of their respective subject areas (Q-item 8: +1) and their ability to connect theoretical content to real-world applications (Q-item 10: +1) further contribute to their satisfaction with their preparation at the CED and enhance their teaching competence.

Despite their strong foundational skills, as they perceive them, completers loaded on this factor reported facing challenges in translating their preparation into practice within the workplace. They expressed dissatisfaction with their ability to design assessments that allow students to demonstrate learning in varied ways, such as through projects, presentations and tests, often due to systemic constraints (Q-item 15: -3). Specifically, as these completers work primarily for the Ministry of Education and Higher Education, they are required to adhere to strict assessment methods imposed on them. The same issue applies to employing a wide range of instructional strategies. Completers reported that subject coordinators in their schools limit their freedom to apply diverse strategies to meet the unique needs of learners (Q-item 19: -2). They reported that lessons are often standardised for the entire school and are monitored consistently. As a result, these completers struggle to use diverse assessment methods to measure learning effectively (Q-item 14: -1). Similarly, coordinators frequently enforce their instructional preferred approaches, leaving completers with limited autonomy. Consequently, these completers find it challenging to design learning activities that closely align with their students' developmental needs (Q-item 2: -1). On a different note, while completers loaded onto this factor value professional growth, they have not yet fully engaged in ongoing professional learning opportunities to enhance their effectiveness (Q-item 22: -2). Establishing effective communication with families to foster home-school collaboration also remains a challenge,

as they are still novices attempting to build relationships (Q-item 24: -2). Additionally, these completers acknowledged that they have not yet developed consistent habits of reflecting on their teaching practices and making adjustments based on student outcomes and feedback (Q-item 21: -3).

In summary, completers loaded onto this factor are satisfied with their preparation and demonstrate confidence in key pedagogical and subject-specific skills. Still, they are still navigating the complexities of their early careers, striving to reconcile the theoretical knowledge gained during their training with the realities of the educational environments in which they now work.

Conclusion

This study explored the satisfaction of the CED's initial programme completers with their teacher preparation programmes. Using Q methodology, the research captured diverse viewpoints, revealing two dominant factors: F-1 and F-2. The first group, F-1, expressed strong satisfaction while still adapting to the profession, whereas the second group, F-2, faced institutional systemic constraints that limited their autonomy and instructional practices.

Completers from both groups demonstrated consensus in foundational teaching skills, including managing classroom behavior (Q-item 5: F-1: +2, F-2: +2), fostering collaborative learning environments (Q-item 6: F-1: +2, F-2: +2), understanding core subject concepts (Q-item 8: +1, +1), and explaining complex content clearly (Q-item 9: +1, +1). These findings affirm the CED programmes' success in equipping completers with essential pedagogical competencies.

Still, challenges emerged in translating this preparation into practice. Completers faced difficulties in employing diverse instructional strategies (Q-item 19: F-1: -1, F-2: -2) and reflecting on teaching practices to make data-informed adjustments (Q-item 21: F-1: -2, F-2: -3). These challenges are not attributed to the quality of their preparation but rather to institutional constraints in the schools where they work. These constraints limit professional autonomy and opportunities for growth, making it difficult for completers to fully apply their training. Additionally, as novice teachers, completers from both groups reported low scores in areas such as engaging in ongoing professional learning (Q-item 22: F-1: -3, F-2: -2) and fostering home-school collaboration (Q-item 24: F-1: -2, F-2: -2).

In conclusion, while some challenges may naturally resolve as completers gain experience (F-1), others, particularly those faced by F-2 completers, require systemic reforms. These include addressing rigid workplace structures and fostering professional autonomy to enable the effective implementation of diverse instructional strategies and assessments. The findings underscore the need for a dual focus: supporting new teachers during their transition into the profession and advocating for systemic changes that better align institutional practices with teachers' needs. By addressing these transitional and systemic barriers, teacher education programmes can ensure a stronger alignment between preparation and the practical demands of teaching, ultimately enhancing teacher effectiveness and professional satisfaction.

References

Brown, S. R. (1980). *Political Subjectivity*. Yale University Press.

Canrinus, E. T., Klette, K., & Hammerness, K. (2019). Diversity in coherence: Strengths and opportunities of three programs. *Journal of Teacher Education, 70*(3), 192-205. https://doi.org/10.1177/0022487117737305

Goh, P. S. C., Canrinus, E. T., & Wong, K. T. (2020). Preservice teachers' perspectives about coherence in their teacher education program. *Educational Studies, 46*(3), 368-384. https://doi.org/10.1080/03055698.2019.1584856

Lo Bianco, J. (2015). Exploring language problems through Q-sorting. In F. M. Hult, & D. C. Johnson (Eds.), *Research methods in language policy and planning: A practical guide* (pp. 69– 80). Wiley-Blackwell.

Mayer, D., Dixon, M., Kline, J., Kostogriz, A., Moss, J., Rowan, L., et al. (2017). *Studying the effectiveness of teacher education: Early career teachers in diverse settings*. Singapore: Springer.

Mohamed, Z., Valcke, M., & De Wever, B. (2017). Are they ready to teach? Student teachers' readiness for the job with reference to teacher competence frameworks. *Journal of Education for Teaching*, *43*(2), 151-170. https://doi.org/10.1080/02607476.2016.1257509

Pruneddu, A. (2013) *Implicit person theories and Q-sort: Personality change in emerging adults*. [Doctoral dissertation, University of York]. Alessio_Pruneddu_PhD_Thesis_December_2013.pdf

Rowan, L., Mayer, D., Kline, J., Kostogriz, A., & Walker-Gibbs, B. (2015). Investigating the effectiveness of teacher education for early career teachers in diverse settings: The longitudinal research we have to have. *The Australian Educational Researcher*, *42*(3), 273–298. https://doi.org/10.1007/s13384-014-0163-y.

Schmolck, P. (2014). *PQMethod* (Release 2.35). http://schmolck.userweb.mwn.de/qmethod/downpqmac.htm

Stenner, P., & Rogers, R. (2004). Q methodology and qualiquantology: The example of discriminating between emotions. In Z. Todd, B. Nerlich, S. McKeown, & D. D. Clarke (Eds.), Mixing methods in psychology: The integration of qualitative and quantitative methods in theory and practice (pp. 101–120). Psychology Press.

Stephenson, W. (1936). The inverted factor technique. British Journal of Psychology, 26, 344–361.

Watts, S., & Stenner, P. (2012). *Doing Q methodology: Theory, Method and Interpretation*. Sage.

Webler, T., Danielson, S., & Tuler, S. (2009). Using Q method to reveal social perspectives in environmental research. Social and Environmental Research Institute. www.serius.org/pubs/Qprimer.pdf.

Appendix 1: Q-sample[1]

Q-item	F-1	F-2
1. I feel confident in recognizing and supporting the cognitive, emotional and social growth of each of my students.	3	0
2. I feel confident in designing learning activities that address students' developmental stages and needs.	3	-1
3. I feel confident in differentiating my instruction to meet the unique learning needs of diverse students.	2	1
4. I feel confident in applying inclusive practices to support students from various cultural and linguistic backgrounds.	1	0
5. I feel confident in managing classroom behavior to create a positive, productive environment where students feel safe, respected and valued.	*2*	*2*
6. I feel confident in fostering a collaborative learning environment that promotes student engagement and interaction.	*2*	*2*
7. I feel prepared to address discipline issues in a way that maintains a constructive and supportive learning environment.	1	0
8. I have a deep understanding of the core concepts in the subject area I teach.	*1*	*1*
9. I am confident in explaining complex content in a clear and accessible way for my students.	*1*	*1*
10. I make real-world connections to the subject matter, helping students understand how the content applies to their everyday lives.	0	1
11. I believe that all students deserve an equal opportunity to succeed, and I adjust my teaching practices to reflect this belief.	0	3
12. I ensure that all students, regardless of background or ability, feel included and valued in classroom discussions and activities.	0	3
13. I use data to identify gaps in student achievement and adjust my instruction to help close those gaps.	-1	0
14. I feel confident in using a variety of assessment methods to effectively measure student learning.	*-1*	*-1*
15. I design assessments that allow students to demonstrate their learning in multiple ways, such as through projects, presentations, and tests.	0	-3
16. I provide timely and meaningful feedback based on assessment data to guide students' progress and improvement.	0	-1
17. I feel confident in planning instruction that aligns with learning goals and standards while addressing the diverse needs of my students.	0	0
18. I feel confident in incorporating students' interests and backgrounds into my lesson planning to enhance their engagement.	-2	0
19. I feel confident in utilizing a range of instructional strategies to meet the needs of diverse learners.	*-1*	*-2*
20. I provide opportunities for students to apply their knowledge in meaningful and practical ways, fostering deeper understanding.	0	-1
21. I regularly reflect on my teaching practices and make adjustments based on student outcomes and feedback.	*-2*	*-3*
22. I engage in ongoing professional learning to continuously improve my teaching effectiveness and better meet the needs of my students.	*-3*	*-2*
23. I collaborate with other teachers to share strategies, plan lessons, and create a supportive and consistent learning environment for all students.	-3	2
24. I actively communicate with families to involve them in their child's learning progress and foster home-school collaboration.	*-2*	*-2*
25. I can see the positive impact my teaching has on my students.	-1	0

[1] *Italic* statements in the above table represent the consensus across the emerging perspectives. Reading the above table by column tells about the comparative ranking of Q-items that characterise a particular factor, while reading the table by row shows the comparative ranking of a particular Q-item across factors.

Appendix 2: Completers' Demographics

Code	Gender	Age	Graduation Year	Current Job	Major	Years of Experience	School	Note	Factor
1. PE 1	Male	25	2023	PE Teacher	B.Ed in Physical Education	1	Ali bin Abi Talib Preparatory School for Boys		Null
2. PE 2	Female	24	2023	PE Teacher	B.Ed in Physical Education	1	Sumaya Primary School for Girls		F-1
3. PE 3	Female	32	2023	PE Teacher	B.Ed in Physical Education	0	Al-Bayan First Primary School for Girls	First semester in the job	F-1
4. SPED 1	Female	35	2023	Special Ed. Teacher	B.Ed in Special Education – School Track	1	Al-Awsaj Academy (Primary)		F-2
5. SPED 2	Female	22	2023	Special Ed. Teacher	B.Ed in Special Education– School Track	1	Saud bin Abdulrahman Model School (Primary)		F-1
6. DSE 1	Female	22	2023	Arabic Language Teacher	B.Ed. Secondary Education – Arabic Language	0	Abu Hanifa Model School for Boys (Primary)	First semester in the job	F-1
7. DSE 2	Female	30	2023	Arabic Language Teacher	B.Ed. Secondary Education – Arabic Language	1	Al-Salam Primary School for Girls		F-2
8. DSE 3	Female	23	2023	Math Teacher	B.Ed. Secondary Education – Math	1	Muaither Preparatory School for Girls		F-1
9. DSE 4	Female	28	2023	Social Studies Teacher	B.Ed. Secondary Education – Social Studies	1	Hafsa Preparatory School for Girls		F-1
10. DSE 5	Female	23	2023	Biology Teacher	B.Ed. in Secondary Education – Biology	0	Qatar Preparatory School for Girls	First semester in the job	F-2
11. DSE 6	Female	24	2023	Math Teacher	B.Ed. in Secondary Education – Math	1	Al-Wukair Primary School for Girls		F-1
12. DSE 7	Female	23	2023	Math Teacher	B.Ed. in Secondary Education – Math	1	Al-Wajba Preparatory		F-1
13. DSE 8	Male	24	2023		B.Ed. in Secondary	1	Muaither Primary School for Boys		F-2

				Social Studies Teacher	Education – Social Studies				
14. DSE 9	Female	26	2023	Biology Teacher	B.Ed. in Secondary Education – Biology	1	Al-Khor Preparatory School for Girls		F-1
15. DSE 10	Female	24	2023	English Language Teacher	B.Ed. in Secondary Education – English Language	1	Hafsa Preparatory School for Girls		F-2
16. DSE 11	Female	25	2023	Chemistry Teacher	B.Ed. in Secondary Education – Chemistry	0	Qatar Preparatory School for Girls	First semester in the job	F-2
17. DSE 12	Male	27	2023	Islamic Education Teacher	B.Ed. in Secondary Education – Islamic Education	1	Doha Preparatory School for Boys		F-2
18. DSE 13	Female	31	2023	Chemistry Teacher	B.Ed. in Secondary Education – Chemistry	0	Al-Wakra Preparatory School for Girls	First semester in the job	F-1
19. DSE 14	Female	24	2023	Islamic Education Teacher	B.Ed. in Secondary Education – Islamic Education	1	Zainab Preparatory School for Girls		F-2
20. Bprimary 1	Female	34	2023	Arabic Language Teacher	B.Ed. in Primary Education – Arabic Language	3	Al-Wukair Model School for Boys (Primary)		F-2
21. Bprimary 2	Female	31	2023	Kindergarten Teacher	B.Ed. in Primary Education – Early Childhood	2	Al-Isra Primary School for Girls		Null
22. Bprimary 3	Female	24	2023	English Language Teacher	B.Ed. in Primary Education – English Language	1	Qatar Primary School for Girls		F-2
23. Bprimary 4	Female	42	2023	Arabic Language Teacher	B.Ed. in Primary Education – Arabic Language	2	Maymouna Primary School for Girls		F-1
24. Bprimary 5	Female	26	2023	Math Teacher	B.Ed. in Primary Education – Science and Math	2	Tayba Primary School for Girls		F-1
25. Bprimary 6	Female	32	2023	Math Teacher	B.Ed. in Primary Education – Science and Math	1	Amina Mahmoud Al-Jaidah Primary School for Girls		F-2
26. Bprimary 7	Female	25	2023						F-1

				Early Childhood Teacher – English Language	B.Ed. in Primary Education – Early Childhood	0	Al-Maha Academy for Girls (Primary)	First semester in the job	
27. Dprimary 1	Male	39	2023	Islamic Education Teacher	Dip in Primary Education	2	Ibn Al-Haytham Primary School for Boys		Null
28. Dprimary 2	Female	28	2023	Islamic Education Teacher	Dip in Primary Education	2	Al-Shifa bint Abdulrahman Al-Ansariyah School (Primary)		F-2
29. DSE 1	Male	34	2023	Biology Teacher	Dip in Secondary Education – Science	2	Simaisma Preparatory School for Boys		F-1
30. DSE 2	Female	32	2023	Islamic Education Teacher	Dip in Secondary Education – Humanities	2	Modern English School (Primary and Preparatory)		Null
31. DSEC 1	Female	30	2023	English Language Teacher	Dip in Early Childhood Education	1	Al-Isra Elementary School for Girls		F-1
32. DSEC 2	Female	49	2023	Early Childhood Teacher	Dip in Early Childhood Education	1	Fatima bint Al-Khattab Kindergarten and School for Girls (Primary)		F-1
33. DSPED 1	Female	47	2023	Support Teacher	Dip in Special Education	1	Al-Wakra Preparatory School for Girls		F-1
34. DSPED 2	Male	40	2023	Support Teacher	Dip in Special Education	4	Al-Hidaya School for Special Needs – Primary and Preparatory		F-1
35. DSPED 3	Female	41	2023	Special Education Teacher	Dip in Special Education	1	Al-Wakra Preparatory School for Girls		F-2

Appendix 3: Glossary of Additional Specialised Terms

This glossary can help readers unfamiliar with Q methodology better understand key concepts discussed in the study.

Concourse	A collection of all possible subjective opinions or statements about a particular topic. In Q methodology, it represents the range of communication and discourse surrounding the research subject.
P-Set	The group of participants in a Q methodology study. The selection of this group is guided by their relevance to the research topic rather than their representativeness of a broader population.
Factor Loadings	Numerical values that indicate the degree to which an individual Q-sort (a participant's sorting of items) aligns with a particular factor. Higher absolute values suggest stronger alignment or correlation with the factor.
Factor Array	A composite ranking of Q-items for a specific factor, created by merging the individual Q-sorts of participants associated with that factor. The array represents the shared perspective or viewpoint of the group linked to the factor.
Q-Sample	A carefully selected subset of statements that represent the broader concourse. These statements are used during the Q-sorting process to elicit participants' subjective perspectives on the topic.
Q-Item	An individual statement within the Q-sample. Each Q-item is sorted by participants based on their level of agreement or disagreement during the Q-sorting activity.
Grid	A distribution chart used in Q methodology to rank Q-items based on participants' subjective viewpoints. It typically follows a quasi-normal distribution, with columns representing levels of agreement or disagreement (e.g. from 'Most Agree' to 'Most Disagree').
Q-Sort	The process in Q methodology where participants rank Q-items along a continuum (e.g. from 'Most Agree' to 'Most Disagree') using a distribution grid. This sorting reflects the participant's subjective perspective on the given topic.
Condition of Instruction	A specific prompt or instruction given to participants before they begin the Q-sorting process. It guides how participants should approach the ranking of Q-items and ensures that their sorting aligns with the research focus.