



Research Report 2031

Digitizing Peer Assessments in the U.S. Army Officer Candidate School

Tatiana H. Toumbeva & Kristy Reynolds
Aptima, Inc.

Elizabeth R. Uhl
U.S. Army Research Institute

Frederick J. Diedrich & Scott M. Flanagan
Sophia Speira

Joshua Shireman
Aptima, Inc.

Ashley H. Wittig & Celeste N. Sanders
U.S. Army Research Institute

Ronelle L. Koschny
Consortium of Universities of the Washington

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**United States Army Research Institute
for the Behavioral and Social Sciences**

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Authorized and approved:

**MICHELLE ZBYLUT, Ph.D.
Director**

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Technical review by

Cary Stothart, U.S. Army Research Institute
Victor J. Ingurgio, U.S. Army Research Institute

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Jennifer S. Tucker, Chief

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DIGITIZING PEER ASSESSMENTS IN THE ARMY OFFICER CANDIDATE SCHOOL

EXECUTIVE SUMMARY

Research Requirement:

The U.S. Army Officer Candidate School pilot tested a revised peer assessment (Toumbeva et al., 2021). Though the revised peer assessment was generally well received, one of the major concerns was the time required to collate and calculate the peer assessments. The purpose of this project was to develop a digital peer assessment for OCS that included the features developed by Toumbeva et al. (2021) and was compatible with the Army network.

Procedure:

Two Microsoft Excel tools were developed including a data collection tool and a compiler tool to expedite data collection and synthesis. The tools were developed through an iterative process of testing, gathering end user input and feedback, and making necessary revisions. Qualitative and quantitative utility and usability feedback were collected from end users to evaluate the tools and processes.

Findings:

Overall, the data collection tool and process were perceived positively by both the cadre and the Officer Candidates. One item of concern was the complexity of the leadership rubric that was included in the tool. Future research could seek to refine this rubric. Additionally, the utility of the tool was limited by how effectively the results were used for peer feedback. That is, not all Officer Candidates received feedback from the peer assessment, which could adversely affect the effort they put into subsequent peer assessments.

Utilization and Dissemination of Findings:

These findings were briefed to the U.S. Army Officer Candidate School. Although they were developed for Officer Candidate School, the tools and processes described here can be adapted for other instructional contexts and can be used to enable formative and summative assessments.

DIGITIZING PEER ASSESSMENTS IN THE ARMY OFFICER CANDIDATE SCHOOL

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Digitizing Peer Assessments in the U.S. Army Officer Candidate School

Peer assessment, the practice of having members of a group (e.g., a class) evaluate each other on identified criteria (Kane & Lawler, 1978), is commonly used across a variety of settings for summative/ assessment or formative/developmental purposes (e.g., O'Donnell & Topping, 1998; van Zundert et al., 2010). Despite their widespread use, peer assessments are challenging to conduct, especially within dynamic and demanding contexts like the U.S. Army. For example, a major issue with conducting peer assessments in the Army is collating the results in a timely manner. In order to be effective, peer assessment tools and processes must not only help support training and programmatic objectives but also be sensitive to contextual constraints that affect implementation. Given that collecting and managing peer data can be a daunting and time-consuming undertaking, especially when paper-based, digital peer assessments can significantly expedite the process and facilitate the timely provision of formative feedback to students based on the peer assessment results. For example, if peers digitally enter the data, this saves instructors/cadre from having to manually process the data from paper-based assessments. If peer data are combined and shared quickly, accurately, and effectively, the peer assessment process can be essential for growth and development. Furthermore, digital formats of peer assessments provide greater anonymity for the evaluator, thus potentially increasing honest assessments (Li et al., 2016).

A revised peer assessment form was previously developed for OCS by Toumbeva et al. (2021) using a paper-based format which, while useful for officer candidate (OC) development, was time-consuming for cadre to manage. Digitizing the process would not only make data management less daunting for cadre but also help standardize peer assessments across OCS, thus enabling comparisons across time and people. Specifically, a digital process could expedite summative assessments at OCS by removing the need for cadre to manually enter and calculate peer rankings for both the course grade and Order of Merit List (OML). A digital process could also easily compile and summarize comments, thus also expediting the provision of formative feedback at OCS.

Research Objective

The current effort focuses on digitizing the peer assessment process for the U.S. Army Officer Candidate School (OCS). The goal of this research was, therefore, to develop and test a digital peer assessment tool for OCS. Though the focus of this report is OCS, the tool described here could be adapted for use in other instructional contexts.

Assessment Context

Peer assessments are a mandatory part of the OCS curriculum. As described in Toumbeva et al. (2021), there are four primary uses of the peer assessments at OCS. First, they count toward the final course grade and OML. Second, they are used to identify red flags (i.e., problems that might result in recycles). Third, they help cadre fill in gaps about OC performance. Fourth, they are used to provide developmental feedback. Typically, at OCS, cadre provide counseling based on the peer assessment results to OCs who ranked at the bottom (and sometimes at the top) of their platoon, while the OCs in the middle receive less feedback. This is in part due to the

difficulty in manually processing and synthesizing individualized data before it can be shared with every OC.

The newly developed paper-based peer assessment process at OCS includes three squad-level assessments completed during dedicated class time in the beginning, middle, and end of the course. As described in depth in Toumbeva et al. (2021), for every person in the squad besides themselves, OCs are required to identify at least one or up to three sustains and improves from the Leadership Requirements Model (LRM, U.S. Department of the Army, 2012) and write a comment for each attribute/competency using a behaviorally anchored rating scales rubric as a guide (see Toumbeva et al., 2018a for details). The rubric includes descriptions of behaviors for the 29 LRM attributes/competencies at various levels of performance. Also included in the peer assessment is an open-ended accountability question (i.e., what have you done/would you do to help your peer improve?) and a yes/no peer trust question (i.e., would you trust this person to lead Soldiers?). After completing each individual peer assessment, OCs are asked to rank their squad members from best (#1) to worst ($n - 1$) on the basis of ability to lead and work as part of a team, especially in the context of the LRM. There is typically a maximum of 13 people in a squad, so OCs have to evaluate and rank-order up to 12 peers.

Cadre and OC feedback collected by Toumbeva et al. (2021) identified several challenges associated with the paper-based process. First, the OCs pointed out that the process was time consuming and laborious given that there were so many peers to evaluate. Cadre were also concerned about the time needed to manually consolidate all written comments and then input the peer ranks into an Microsoft Excel spreadsheet to calculate grades after each assessment, which can take a whole day. Some OCs also raised concerns about the lack of anonymity due to the ability to recognize handwriting on the paper form. Digitizing the peer assessment would help resolve these issues with data management and make the process more efficient and sustainable at OCS while also providing improved anonymity. Furthermore, having an easy way to digitally collect and manage data could also enable OCS to implement a standardized peer assessment process across companies. Importantly, the utility of peer assessments for formative purposes is limited in the absence of feedback, which can be cumbersome if the data are manually processed. With a digital tool that quickly and easily collects and compiles peer data in a user-friendly format, cadre can provide timely formative feedback to OCs based on the peer assessment results.

Initial Requirements Gathering

The research team sought feedback from OCS stakeholders, including the battalion commander, company commander, company executive officer, cadre members, and brigade and battalion information systems experts, at multiple points in time over the course of the project to identify requirements and constraints associated with developing and implementing a digital peer assessment tool. The goal was to ensure that the tool could be supported long-term by OCS and easily integrated into the current systems and workflow without creating additional resource burdens.

Several overarching end user needs were uncovered. To start, the tool must be compatible with the Army network and not require any special software or programs. It must be flexible and

adaptable to enable the format and content to evolve as needs change. Importantly, the tool must be sustainable internally by OCS members. Based on the end user feedback and given the contextual constraints, Microsoft Excel was identified as a viable solution that would meet all assessment requirements. There are several reasons why Excel was appropriate in this case. First, it is compatible with the Army network. OCS already used Excel for peer rank calculations, and cadre were familiar with how the program works. Also, there is the ability to edit the tool content and format if needed in the future. In all, Excel would meet all functionality requirements relating to the collection and management of peer data without any resource burdens. Moreover, Excel-based tools have been successfully developed for other Army institutional training settings (e.g., Toumbeva et al., 2019, Toumbeva et al., 2018b).

Tool Development

The specific components of the tools and how they would best fit into the existing workflow were determined through an iterative process that included gathering end user input and feedback, as well as developing, testing, and modifying prototypes. The cornerstone of this process was the close collaboration between end users and a multi-disciplinary team of research psychologists, retired Army SMEs, data scientists, and software engineers. The tool features, functionality, and workflow are described in the following sections.

Tool Features and Functionality

The Excel-based digital peer assessment for OCS is comprised of two dynamic tools – a data collection tool and a compiler tool. OCs use the data collection tool to evaluate their peers. Cadre (or a designated tool manager) use the compiler tool to import and view the peer assessment results. The tools use macros and formulas to expedite data collection and automate data import and synthesis of results. Based on end user feedback, multiple layers of safeguards, warning/confirmation messages, and step-by-step instructions were built into the process to help guide end users through the tools and minimize the risk for errors.

Data Collection Tool

The peer assessment data collection tool contains roster, peer assessment, and rankings tabs. The peer assessment and rankings tabs align with the components of the paper-based form developed by Toumbeva et al. (2021). The roster component was added to help with peer data collection, tracking, and management.

Roster Tab. The roster tab is prepared by a cadre member prior to each peer assessment (see Figure 1 for an example using fictitious names). The roster tab populates some of the information in the peer assessment tab (e.g., company, platoon, squad, assessment period, dropdown menus with squad member names and roster numbers), making it quicker for OCs to fill out the forms.

Figure 1

Data Collection Tool Roster Tab

Key	Company	Platoon	Squad	Time	RN	Last	First	MI	Notes
P1_S1_T1_101	Charlie	P1	S1	T1	101	Masse	Randal	A	Notes Randal Masse P1_S1_T2_101.
P1_S1_T1_102	Charlie	P1	S1	T1	102	Francoeur	Marion	A	Notes Marion Francoeur P1_S1_T2_102.
P1_S1_T1_103	Charlie	P1	S1	T1	103	Atlas	Fausto	A	Notes Fausto Atlas P1_S1_T2_103.
P1_S1_T1_104	Charlie	P1	S1	T1	104	Lindell	Leslie	E	Notes Leslie Lindell P1_S1_T2_104.
P1_S1_T1_105	Charlie	P1	S1	T1	105	Lewellyn	Robert	I	Notes Rigoberto Lewellyn P1_S1_T2_105.
P1_S1_T1_106	Charlie	P1	S1	T1	106	Poore	Ramiro	A	Notes Ramiro Poore P1_S1_T2_106.
P1_S1_T1_107	Charlie	P1	S1	T1	107	Ohagan	Horace	O	Notes Horace Ohagan P1_S1_T2_107.
P1_S1_T1_108	Charlie	P1	S1	T1	108	Sennett	Graig	R	Notes Graig Sennett P1_S1_T2_108.
P1_S1_T1_109	Charlie	P1	S1	T1	109	Marsh	Xavier	A	Notes Xavier Marsh P1_S1_T2_109.
P1_S1_T1_110	Charlie	P1	S1	T1	110	Huizenga	Erwin	R	Notes Erwin Huizenga P1_S1_T2_110.
P1_S1_T1_111	Charlie	P1	S1	T1	111	Hackley	Gregorio	R	Notes Gregorio Hackley P1_S1_T2_111.
P1_S1_T1_112	Charlie	P1	S1	T1	112	Burg	Errol	R	Notes Errol Burg P1_S1_T2_112.
P1_S1_T1_113	Charlie	P1	S1	T1	113	Jahnke	Gaylord	A	Notes Gaylord Jahnke P1_S1_T2_113.
P1_S2_T1_114	Charlie	P1	S2	T1	114	Shanahan	Damien	A	Notes Damien Shanahan P1_S2_T2_114.
P1_S2_T1_115	Charlie	P1	S2	T1	115	Vandermeulen	Darryl	A	Notes Darryl Vandermeulen P1_S2_T2_115.
P1_S2_T1_116	Charlie	P1	S2	T1	116	Hegg	Bradley	R	Notes Bradford Hegg P1_S2_T2_116.
P1_S2_T1_117	Charlie	P1	S2	T1	117	Villicana	Lionel	I	Notes Lionel Villicana P1_S2_T2_117.
P1_S2_T1_118	Charlie	P1	S2	T1	118	Pearce	Mose	O	Notes Mose Pearce P1_S2_T2_118.
P1_S2_T1_119	Charlie	P1	S2	T1	119	Araujo	Derick	E	Notes Derick Araujo P1_S2_T2_119.
P1_S2_T1_120	Charlie	P1	S2	T1	120	Dieguez	Cliff	L	Notes Cliff Dieguez P1_S2_T2_120.
P1_S2_T1_121	Charlie	P1	S2	T1	121	Mccormick	Anderson	N	Notes Anderson Mccormick P1_S2_T2_121.
P1_S2_T1_122	Charlie	P1	S2	T1	122	Forshey	Emmitt	M	Notes Emmitt Forshey P1_S2_T2_122.
P1_S2_T1_123	Charlie	P1	S2	T1	123	Weber	Colin	O	Notes Colin Weber P1_S2_T2_123.
P1_S2_T1_124	Charlie	P1	S2	T1	124	Hodge	Hosea	O	Notes Hosea Hodge P1_S2_T2_124.
P1_S2_T1_125	Charlie	P1	S2	T1	125	Hurd	Patrick	A	Notes Patrick Hurd P1_S2_T2_125.
P1_S3_T1_127	Charlie	P1	S3	T1	127	Leonetti	Bret	R	Notes Bret Leonetti P1_S3_T1_127.
P1_S3_T1_128	Charlie	P1	S3	T1	128	Raymond	Sammy	A	Notes Sammy Raymond P1_S3_T1_128.
P1_S3_T1_129	Charlie	P1	S3	T1	129	Murrin	Elmer	L	Notes Elmer Murrin P1_S3_T1_129.
P1_S3_T1_130	Charlie	P1	S3	T1	130	Munk	Ross	O	Notes Ross Munk P1_S3_T1_130.
	Charlie	P1	S3	T1					
	Charlie	P1	S3	T1					
	Charlie	P1	S3	T1					

Note. All data included in this figure and in other figures displaying the features of the tool, are fictional. These are example data and do not represent data from any living persons.

Peer Assessment Tab. The peer assessment tab is the form OCs fill out to evaluate each peer in the squad (see Figure 2). The instructions button at the top of the peer assessment tab allows OCs to access the step-by-step process for completing the form (see Appendix A). Using dropdowns, the OCs first select their own name. OCs then select a ratee name from the squad roster list. For the selected ratee, they then choose *yes* or *no* to the peer trust question, select an initial rank in the squad, and answer the accountability for the peer question (see the yellow fields in Figure 2).

Figure 2

Data Collection Tool Peer Assessment Tab

Click Here for Instructions		Peer Assessment: Please Complete this Tab First				Click Here to Save Form	
Assessment Info (Please Complete Items in Yellow)				Completed Ratings		What have you done (or could you do in the future) to help this OC improve?	
Company	Charlie	Select Your Name	101 Masse, Randal A	MF - 11	FA - 1	LL - 4	Comment.
Platoon	_P1	Select Soldier to be Rated	106 Poore, Ramiro A	RL - 2	RP	HO	
Squad	PI_S1	Would you trust this person to lead Soldiers?	Yes	GS - 5	XM - 5	EH - 11	
Assessment Period	T1	How would you rank this soldier in the SQ? (1 = best OC in squad)	9	GH - 6	EB - 1	GJ	
Sustains Rubric				Improves Rubric			
SUSTAINS INSTRUCTIONS: Scroll down to select 1-3 sustains from <i>entire</i> list of 29 attributes/competencies listed below. Select a maximum of 3 total <i>across</i> categories on this side.				IMPROVES INSTRUCTIONS: Scroll down to select 1-3 improves from <i>entire</i> list of 29 attributes/competencies listed below. Select a maximum of 3 total <i>across</i> categories on this side.			
Character	Select	Add Comments for Selected Items Only		Character	Select	Add Comments for Selected Items Only	
Loyalty				Loyalty			
Duty				Duty	X	Comment.	
Respect	X	Comment.		Respect			
Selfless Service				Selfless Service			
Honor	X	Comment.		Honor			
Integrity				Integrity			
Personal Courage				Personal Courage			
Warrior Ethos				Warrior Ethos			
Empathy				Empathy			
Discipline	X	Comment.		Discipline			
Presence				Presence			
Military Bearing				Military Bearing	X	Comment.	

Next, OCs complete the Sustains and Improves sections of the peer assessment, which list the 29 LRM attributes/competencies. For each section, OCs must select at least one and up to three attributes/competencies from the list and write comments in the expandable boxes next to each selection. The instructions prompt OCs to write comments that are specific, concrete, and actionable with the help of the integrated rubric. The rubric can be accessed by double-clicking on the particular attribute/competency name in the form (see Figure 3).

Figure 3

Data Collection Tool Integrated Leadership Rubric Examples

Character	Select	Add Comments for Selected Items Only	Character	Select	Add Comments for Selected Items Only
Loyalty			Loyalty		
Duty	X	Duty Rubric No-Go (N) • Fails to meet obligations, accomplish tasks, or fulfill responsibilities unless pushed by authority • Does not attempt to clarify leader's intent when unsure • Takes unnecessary risks; does not consider costs or consequences • Unnecessarily wastes self and subordinates' time and resources; does not prioritize; wastes downtime	Duty		Go (Y) • Meets obligations individually and as a team; accomplishes tasks and fulfills responsibilities, even when not observed by authority • Takes the initiative to ask questions and gathers information when unsure of leader's intent • Weighs the consequences, costs, and benefits of necessary risks • Proactively ensures that both self and subordinates have the time and resources to accomplish tasks and mission; effectively balances conflicting priorities; optimizes use of white space
Respect			Respect		
Selfless Service			Selfless Service		
Honor			Honor		
Integrity			Integrity		
Intellect			Intellect		
Mental Agility			Mental Agility		
Interpersonal Tact			Interpersonal Tact		
Sound Judgment	X	Sound Judgment Rubric Needs Improvement (no go) • Ignores facts, recommendations, feedback, or situational cues • Does not prioritize effectively when under time pressure	Sound Judgment		Satisfactory • Makes decisions based on available information and reasonable logic for knowledge level but may be rushed or too slow (e.g., does not confirm accuracy of information) • Makes reasonable decision but may not be able to articulate the "why" behind it
Innovation			Innovation		Excellent • Independently draws feasible conclusions and incorporates others' feedback to make appropriate decisions for knowledge level • Uses available tactical evidence to justify decisions; can articulate the "why" • Asks clarification questions or seeks more information when needed
Expertise			Expertise		Outstanding • Effectively seeks and integrates multiple relevant pieces of information to make an informed decision; considers consequences of decision • Justifies decision making based on doctrine and a sound assessment of the situation • Takes prudent risks when appropriate; uses time wisely and prioritizes effectively, even under stress or time pressure
Leads			Leads		

When all the required fields are complete in the peer assessment form, OCs click the save form button before moving on to the next peer. A warning message appears if all required fields have not been completed. These steps, except for selecting the rater’s own name, are repeated until all peers have been evaluated. After all peers in the squad have been evaluated in the peer assessment tab, the OC is prompted to move on to the rankings tab of the data collection tool. A built-in tracker in the peer assessment tab highlights (in green) each completed evaluation to help OCs see who is still left to rate and how each peer has been ranked so far (see Completed Ratings section in Figure 2).

Rankings Tab. The rankings tab auto-populates with initial ranking data from the roster and peer assessment tabs. In the rankings tab, OCs can review the rank they have assigned each peer and update if needed without having to go back to the previous tab (see Figure 4). To change the ranks that have been made on the peer assessment tab, OCs simply type over the existing numbers in the Rank column. When finished, the data generated for all peers is saved by clicking a “Save Rankings and Exit” button. As with the peer assessment tab, the rankings tab also has built-in instructions to help OCs through this process.

Figure 4

Data Collection Tool Peer Rankings Tab

Peer Rankings: Please Complete this Tab Last						
Key	CO	PLT	SQ	Period	Peer	Rank
1	Charlie	P1	S1	T1	103 Atlas, Fausto A	1
2	Charlie	P1	S1	T1	105 Lewellyn, Robert I	2
3	Charlie	P1	S1	T1	109 Marsh, Xavier A	3
4	Charlie	P1	S1	T1	108 Sennett, Graig R	5
5	Charlie	P1	S1	T1	102 Francoeur, Marion A	5
6	Charlie	P1	S1	T1	104 Lindell, Leslie E	4
7	Charlie	P1	S1	T1	112 Burg, Errol R	1
8	Charlie	P1	S1	T1	110 Huizenga, Erwin R	11
9	Charlie	P1	S1	T1	111 Hackley, Gregorio R	6
10						
11						
12						

Quick Tip

*To change the ranks you made on the Peer Assessment tab, type over the existing numbers in the Rank column. When finished, click the "Save Rankings and Exit" button. Clicking this button will **overwrite your existing ranks** in the database. For more detailed instructions for this tab, click the "Click Here for Instructions" button.*

Note: A rank of 1 = best person in squad

[Click Here for Instructions](#)
Save Rankings and Exit

There are multiple safeguards and confirmation/warning messages built into the data collection tool to help OCs seamlessly navigate through the tabs and ensure all required data are entered and saved appropriately once ratings are completed. For instance, if the same rank is given to more than one person, those cells will be highlighted in the Rank column as shown in Figure 4 to help OCs more easily identify the overlaps. If attempts are made to save the form without correcting, a warning message appears, prompting OCs to resolve the issue.

Compiler Tool

After each peer assessment, cadre (or a designated tool manager) use the compiler tool to import the peer data from the data collection forms (described in detail later). Immediately after importing the data, the peer assessment results can be viewed as part of dynamic dashboards. The compiler tool contains four main visible tabs – roster, individual dashboard, overall dashboard, and ranking dashboard, which are described in more detail below. There are also

percentage, and any notes cadre have added in the roster tab regarding the OC (e.g., to help track OCs who have been added to a squad or reassigned to different squad mid-cycle). In addition, there are attribute frequency counts and aggregated peer comments broken down by attribute, assessment period (Time 1, 2, or 3), and rating type (Sustains or Improves). This dashboard also displays the aggregated accountability question comments for each peer assessment (i.e., what have you done to help this peer improve?). As in the individual dashboard, there are ‘auto-fit rows’ and ‘show/hide blanks’ buttons to help ensure the peer comments are fully displayed in the results tables. The help button at the top of this tab provides users with instructions for how to use this dashboard (see Appendix B).

Ranking Dashboard. The ranking dashboard tab displays the ranking results for each OC over the three peer assessments, including individual ranks given by peers, average rank, raw score, and peer points (see Figure 7). This dashboard integrates formulas currently used by OCS to analyze the ranking results. For instance, per OCS practices, peer rank is converted to a score out of 20 points to correct for squad size and enable comparisons across squads. The peer points count toward the final course score and OML determination for each OC.

Figure 7

Compiler Tool Ranking Dashboard

Key	CO	PL	SC	Tin	Full Name	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	Avg R	SQ St	Raw Sco	Points
1	Charlie	P1	S1	T1	101 Masse, Randal A		7	1	12	4	4	1	10	8	1	3	3	3	4.75	12	85%	16.91		
2	Charlie	P1	S1	T1	102 Francoeur, Marion A	1		2	2	5	1	2	2	2	2	5	5	5	2.83	12	91%	18.28		
3	Charlie	P1	S1	T1	103 Atlas, Fausto A	2	8		4	2	12	12	12	10	12	12	12	12	9.17	12	62%	12.36		
4	Charlie	P1	S1	T1	104 Lindell, Leslie E	3	4	4		8	8	6	6	5	6	11	11	11	6.92	12	75%	15.02		
5	Charlie	P1	S1	T1	105 Lewellyn, Robert T	4	12	12	1			10	1	4	10	4	4	4	6.00	11	77%	15.38		
6	Charlie	P1	S1	T1	106 Poore, Ramiro A	5	1	8	8	7		5	5	6	5	10	10	10	6.67	12	76%	15.26		
7	Charlie	P1	S1	T1	107 Ohagan, Horace O	6	3	3	3	6	11		9	7	9	2	2	2	5.25	12	83%	16.51		
8	Charlie	P1	S1	T1	108 Sennett, Graig R	7	2	7	7	1	5	11		11	11	1	1	1	5.42	12	82%	16.37		
9	Charlie	P1	S1	T1	109 Marsh, Xavier A	8	5	5	5	3	3	7	7		7	6	6	6	5.67	12	81%	16.16		
10	Charlie	P1	S1	T1	110 Huizenga, Erwin R	9	11	9	11	9	10	9	11	9		9	9	9	9.58	12	59%	11.72		
11	Charlie	P1	S1	T1	111 Hackley, Gregorio R	10	10	10	9	10	9	3	3	3	3		8	7	7.08	12	74%	14.85		
12	Charlie	P1	S1	T1	112 Burg, Errol R	11	9	11	6	11	6	8	4	1	8	8		8	7.58	12	72%	14.33		
13	Charlie	P1	S1	T1	113 Jahnke, Gaylord A	12	6	6	10	12	2	4	8	12	4	7	7		7.50	12	72%	14.42		
14	Charlie	P1	S2	T1	114 Shanahan, Damien A		3	1	10	8	1	3	1	7	1	10	5		4.55	11	84%	16.74		
15	Charlie	P1	S2	T1	115 Vandermeulen, Darryl A	1		2	2	2	2	5	2	8	2	2	2		2.73	11	91%	18.19		
16	Charlie	P1	S2	T1	116 Hegg, Bradley R	2	5		4	10	8	7	3	4	4	4	8		5.36	11	80%	16.00		
17	Charlie	P1	S2	T1	117 Villicana, Lionel I	3	7	3		5	6	11	4	6	6	1	4		5.09	11	81%	16.26		
18	Charlie	P1	S2	T1	118 Pearce, Mose O	4	11	4	6		10	1	5	1	8	8	7		5.91	11	77%	15.47		
19	Charlie	P1	S2	T1	119 Araujo, Derick E	5	1	5	1	4		2	6	3	3	3	6		3.55	11	88%	17.57		
20	Charlie	P1	S2	T1	120 Dieguez, Cliff L	6	2	6	7	7	7		7	2	7	7	1		5.36	11	80%	16.00		
21	Charlie	P1	S2	T1	121 McCormick, Anderson N	7	8	7	5	6	5	8		5	5	5	3		5.82	11	78%	15.56		
22	Charlie	P1	S2	T1	122 Forshey, Emmitt M	8	4	8	8	1	4	4	8		9	11	9		6.73	11	73%	14.59		
23	Charlie	P1	S2	T1	123 Weber, Colin O	9	10	9	9	11	11	10	9	11		9	10		9.82	11	48%	9.51		
24	Charlie	P1	S2	T1	124 Hodge, Hosea O	10	6	10	11	9	9	6	10	10		10	11		9.27	11	54%	10.79		
25	Charlie	P1	S2	T1	125 Hurd, Patrick A	11	9	11	3	3	3	9	11	9	11	6			7.82	11	66%	13.23		
26	Charlie	P1	S2	T1																				
27	Charlie	P1	S3	T1	127 Leonetti, Bret R		1	1	2										1.33	3	82%	16.44		
28	Charlie	P1	S3	T1	128 Raymond, Sammy A	3		2	1										2.00	3	69%	13.87		
29	Charlie	P1	S3	T1	129 Murrin, Elmer L	1	2		3										2.00	3	69%	13.87		
30	Charlie	P1	S3	T1	130 Munk, Ross O	2	3	3											2.67	3	48%	9.61		
31	Charlie	P1	S3	T1																				
32	Charlie	P1	S3	T1																				
33	Charlie	P1	S3	T1																				
34	Charlie	P1	S3	T1																				
35	Charlie	P1	S3	T1																				
36	Charlie	P1	S3	T1																				
37	Charlie	P1	S3	T1																				
38	Charlie	P1	S3	T1																				
39	Charlie	P1	S3	T1																				
40	Charlie	P1	S4	T1	140 Breazeale, Terry E		2	4	1	1									2.00	4	79%	15.87		
41	Charlie	P1	S4	T1	141 Longoria, Josiah O	1		2	2	2									1.75	4	83%	16.51		
42	Charlie	P1	S4	T1	142 Iacovelli, Clinton L	4	1	3	3	4									3.00	4	63%	12.60		
43	Charlie	P1	S4	T1	143 Heckart, Mervin E	3	4	1	3	3									2.75	4	68%	13.57		
44	Charlie	P1	S4	T1	144 Dantes, Leber F	2	2	4											2.00	4	62%	13.60		

Tool Workflow

The process for using the digital peer assessment solution was determined in close collaboration with various OCS stakeholders and consideration of the existing resources and contextual constraints, so as not to create unnecessary burdens for end users. There a several

steps that need to be followed by both cadre and OCs for the tools to work appropriately. To enable sharing of files on the secure Army network, the research team partnered with the brigade and battalion information systems experts (e.g., battalion S-6) to create the necessary folders in the OCS shared drive with the appropriate user access permissions and settings to protect the data. The overall process is described below and involves several steps. First, cadre prepare the files and upload them to a designated location on the company shared drive for OC access. Second, OCs access and complete the data collection files on their laptops and then drop the files off in a different location on the shared drive. Last, cadre import and view all data in the compiler tool. In depth step-by-step user guides (both OC and cadre versions) and instructional videos were developed by the research team to help navigate users through the process.

Cadre Prepare Files

To start, the files are prepared by a member of the cadre (or designated tool manager) in advance of each peer assessment. Each company in the battalion has its own set of tools. The guidance from OCS leadership and cadre was to reduce the steps that OCs would have to take as much as possible in order to help expedite the data collection and reduce the risk for error at all stages of the process. The file preparation process, described in more detail below, takes approximately a half hour to complete.

Update Roster in Compiler Tool. Prior to each peer assessment, the company roster is updated in the compiler tool and exported to the data collection tool to ensure that OCs evaluate the right individuals in the peer assessment. The information that has to be entered and kept up to date includes OC last name, first name, and middle initial. Each OC is assigned a unique three-digit roster number that stays with them even in the event of a move to another squad or platoon. The roster information enables the data to be compiled appropriately for each OC over time. As mentioned above, notes can be added to help cadre remember OC transfers or additions, which auto-populate to the overall dashboard. The compiler tool has several built-in capabilities to expedite the updating of the roster (e.g., auto-populating selected company, platoon, and squad information for all OCs, pre-populated roster numbers).

Export Roster to Data Collection Tool. Once the roster is updated in the compiler tool, cadre export the roster to the data collection file by clicking a button at the top of the roster tab. Once a file explorer window pops up, the data collection tool file is located and opened within this window, which starts the export process of the roster to the selected file. A confirmation window appears when the roster has been updated.

Create Data Collection Tool Files. The next part of the preparation process is to create the data collection tools for each squad in the company. This allows the dropdown menus in the peer assessment tab to only contain the members of the squad that OCs would have to rate, which expedites the process for OCs and reduces risk for error (e.g., rating someone who is not in the OC's squad). To create data collection files for each squad in the company, cadre generate 16 copies in the file explorer and name each one using a pre-determined naming convention for file and data management purposes. Each data collection file name contains the company name (A, B, C, D, or E), platoon (P1, P2, P3 or P4), squad (S1, S2, S3, S4), and peer assessment time point (T1, T2, or T3).

Program Dropdowns for each Data Collection Tool File. A critical part of the process is to update the settings in the peer assessment tab of each data collection file created above with the appropriate company, platoon, squad, and assessment time point information. In doing so, the dropdown menu options will already be updated with the correct individuals for a given squad when OCs get the file, and the data can import properly to the compiler tool after the data collection.

Save Data Collection Tool Files to Shared Drive. Once the files are prepared, the cadre drag and drop the files into their respective squad folder on the OCS shared drive. Each squad has its own file pick-up folder so that OCs can easily locate it on the shared drive at the start of each peer assessment. The permissions and settings established during folder setup allow cadre or designated tool managers to save files to these folders but forbid OCs to do so.

Officer Candidates Complete the Peer Assessment

OCs complete the peer assessments on their laptops during designated class time. OCs are issued laptops upon arrival to OCS and have internet and shared drive access. The whole company can complete the peer assessment at one time, provided that there is sufficient Wi-Fi bandwidth to enable pick-up and drop-off of files in the shared folders and that everyone has access to the shared drive.

At the start of the first peer assessment, the facilitator introduces the peer assessment objectives and encourages OCs to provide an honest, objective, and constructive review of their peers' performance at OCS. OCs are also provided guidance about how to write comments that are specific, concrete, and actionable, using the LRM rubric, which OCs can have as a reference from Day 1 at OCS. The facilitator then walks the OCs through the peer assessment process using a user guide containing step-by-step instructions with screenshots developed in a Microsoft PowerPoint® slide deck by the research team. The slide deck is projected on the screen in the classroom as OCs move through the peer assessment steps. The step-by-step instructions are also integrated into the peer assessment tab (see Appendix A). The whole data collection process can take up to 90 minutes to complete.

The first step is to help OCs navigate to the correct data collection file for their respective platoon and squad on the shared drive and then drag and drop the file to their desktop before opening. Then, OCs open this file from their desktop and begin filling out the peer assessment tab as described earlier. During the first peer assessment, the facilitator typically walks the OCs as a group through each step in more detail than they would for subsequent peer assessments since, by then, OCs should be familiar with the process and can reference the embedded instructions and/or ask for help if needed.

Once the OCs complete the entire peer assessment and save the file to their desktops, a timestamp is automatically added to the end of the file name. This is done not only to help differentiate the file but also ensure that files are not overwritten when dropped in the shared folder. Specifically, OCs are instructed to drag and drop this timestamped file to a designated shared folder that contains all timestamped files from the whole company. Whereas cadre or

designated tool managers have access to the drop off folder, OCs cannot open the folder to view the completed forms in order to protect the data and retain rater confidentiality.

Cadre Import Files into Compiler Tool

After each peer assessment, cadre (or a designated tool manager) with access to the peer drop off shared folder follow a series of steps to accurately import the peer data into the compiler tool. First, it is necessary to ensure that the right number of files have been placed in the drop off folder for each squad. Before beginning the import, however, cadre are encouraged to create a copy of the compiler tool to ensure the master file will not be corrupted in the event of user error. It is recommended to use a blank copy of the compiler tool as a test file so that it is easier to spot and troubleshoot any issues with data import. The import process is automatic; cadre simply click an integrated “Import” button in the compiler tool file. Upon clicking this button, a file explorer window appears. Cadre navigate to the folder containing the completed data collection tools for the company. All the data collection files are then selected at one time and “Opened” within this window. A warning message appears that asks for confirmation to proceed with import, and then a pop-up appears when the import process is complete, which usually takes several seconds. Cadre review the results for each squad to ensure all data have been imported. For instance, if all data collection files have been properly imported for a squad, there will be no blank columns in the ranking dashboard of the compiler tool. For any missing columns, the cadre can see the rater number from the roster tab and ask the individual to resubmit his/her data collection tool in the drop off for re-import. Once all files are properly imported into the compiler tool test version and the data displays properly, the import process can be repeated for the master compiler tool file. At this point, the cadre can review the dashboards described in earlier sections of this report.

Tool Evaluation

The digital peer assessment was tested with end users at different levels (squad, company) to evaluate what worked well/did not work well and address any technical issues before wider implementation within OCS. Experience feedback gathered from end users at each stage was essential for optimizing the process and tools. The digital peer assessment was refined iteratively as needed after each test to improve usability, create efficiencies, and minimize potential for user error.

Squad-Level Test

The process was first tested on a smaller scale, with a squad. The goal of the squad-level test was to ensure the process worked on the OC laptops and Army network and that the shared drive folders were set up correctly before testing more comprehensively with an entire company.

Method

A group of OCs ($n = 11$) who were waiting for their cycle to start at OCS participated in this initial testing of the data collection tool and process. Members of the research team facilitated this process and helped guide the OCs through the required steps. During the testing,

the OCs were asked to complete the peer assessment process on their laptops using the digital data collection tool. This involved accessing the prepared data collection file from a folder on the shared drive, completing the peer assessment and rankings tabs for a few fictitious peers, and then dragging the completed file into the drop off folder on the shared drive. Once the process was completed, the OCs were invited to verbally share their overall impression of the process and experience with the tool. A company commander who was present during the test but who none of the participants reported to at the time, also provided verbal feedback about the process and reflected on the sustainability of the digital peer assessment within OCS.

Results

Overall, the initial test was successful and the feedback from OCs and leadership was positive. In particular, OCs noted that the digital peer assessment process was efficient, useful, and easy to follow and understand. OCs especially liked having a rubric integrated into the data collection form as it helped them to better evaluate their peers and write constructive comments. The data collection form was easy to navigate and user-friendly. Company leadership provided positive feedback about how the digital process would expedite collection and consolidation of peer data, which is a critical need for OCS.

Several updates were made to the data collection tool following the initial test including adding additional safeguards to ensure OCs only selected at least one or up to three attributes and competencies per each Sustains and Improves section. Specifically, if an OC tries to select more than three attributes for the Sustains (or Improves) section of the peer assessment tab, a warning pop up appears with instructions for how to fix it. In addition, the comment fields were expanded in the data collection forms, and the ability to view and edit previously saved ratings in the peer assessment tab was added.

Company-Level Test

The next step of the evaluation was to conduct a more comprehensive test of the digital peer assessment with an entire company of OCs at three points in time during the course. Both the data collection tool and compiler tool were tested at each time point, and iteratively refined if required after each peer assessment. Feedback about experiences with the tool and process was sought from end users (OCs, cadre, and company leadership) during each data collection.

Method

Peer assessments were conducted using the digital tools in the beginning (week 4), middle (week 9), and end (week 11) of the 12-week OCS course. Members of the research team facilitated the digital peer assessment process and were available to assist OCs as they were completing the forms on their laptops. The initial data collection was performed one platoon at a time so that researchers could provide sufficient coverage when help was requested. The second and third data collections were performed with the whole company of OCs at the same time, given the OCs' increased familiarity with the process. After each data collection, the compiler tool was also tested on the Army network to ensure that the peer data were properly imported and compiled.

The digital peer assessment was tested with approximately 120 OCs at each time point, with slight variations over time due to absences, moves, or dismissals (there were about 30 OCs per platoon and 7-8 per squad). Verbal feedback about experiences with the tool was informally elicited from each platoon after the initial assessment to help gauge overall reactions and impressions with the digital process using a series of open-ended questions (e.g., What were your overall impressions of the process and tool? What tool features did you find useful? What features were difficult or confusing? What changes would you make to the digital tool?).

Some OCs in the company ($n = 53$) also chose to provide quantitative and qualitative feedback as part of a tool utility and usability survey at the end of the third peer assessment (see Appendix C). After the tool evaluation was complete, company leadership and cadre were asked how the digital peer assessment tool or process could be improved for long-term sustainability within OCS and to help meet larger programmatic and reporting needs.

Results

Overall, the verbal feedback that was informally elicited from OCs and cadre after the initial assessment indicated that they had positive experiences with the digital peer assessment. OCs and cadre liked the digital process and did not recommend any specific changes to the functionality or components of the tool. The common theme in the verbal feedback across platoons was that the tool was very easy to navigate. In addition, the ability to click on the attributes and competencies in the form to see the associated rubric was useful.

The tool utility and usability survey results based on the OC ratings were also positive overall (see Table 1).

Table 1

Tool Utility and Usability Survey Results

Survey Item	Mean	SD
1. I quickly learned how to use the peer assessment tool.	4.43	0.64
2. It was easy to remember how to use the peer assessment tool.	4.40	0.74
3. The tool content was easy to understand.	4.30	0.77
4. The integrated instructions were helpful.	4.25	0.84
5. The integrated leadership rubric was helpful.	4.23	0.85
6. It was easy to find what I was looking for in the tool.	4.23	0.85
7. I felt confident using the peer assessment tool.	4.23	0.82
8. The tool content was easy to read.	4.21	0.95
9. The steps I had to follow to complete the assessment were simple.	4.17	0.92
10. I knew exactly where to go within the tool to complete an assessment.	4.17	0.94
11. It was easy to navigate between the different sections of the tool.	4.17	0.99
12. The peer assessment tool was easy to use.	4.13	0.86
13. The tool interface was organized well.	4.08	0.98
14. The tool interface was user friendly.	4.04	1.07
15. It was easy to tell if I missed a step in the assessment process.	4.00	0.86
16. If I made a mistake, it was easy to fix it in the tool.	3.98	0.82
17. The tool allowed me to provide feedback efficiently.	3.96	1.09
18. It was easy to tell when I had completed an assessment.	3.92	1.12
19. The process for accessing and saving the tool files was easy to follow.	3.91	0.95
20. I never lost track of where I was in the tool.	3.90	1.09
21. It was easy to tell if I made a mistake in the tool.	3.85	0.99
22. The tool facilitated constructive feedback on peer performance.	3.83	1.22
23. I would recommend this peer assessment tool to others.	3.75	1.21
24. I would use this peer assessment tool in the future.	3.74	1.21

Note. Item responses ranged from 1 (strongly disagree) to 5 (strongly agree); SD = standard deviation.

There were no survey item means lower than 3.74 (neutral to agree response category). In line with the verbal feedback, the highest rated items reveal that, on average, OCs considered the digital data collection tool to be user-friendly, the content easy to understand, and the integrated rubrics and instructions to be helpful. Among the items that were not rated as highly were those pertaining to the overall utility of peer assessments, which, upon further inquiry, seemed to be contingent on receiving feedback based on the peer assessments.

Almost all ($n = 47$) of the OCs who completed the survey also wrote a comment about their experience with the digital peer assessment. The comments largely reflected the ratings – many OCs found the tool easy to use and the process easy to follow ($n = 23$) and the integrated LRM rubric helpful for evaluating OCs as part of the peer assessment ($n = 15$). Interestingly, OCs mentioned that the rubric could also be useful for evaluating cadre ($n = 7$), conducting after action reviews ($n = 1$), and evaluating student performance on field training exercises ($n = 2$). Some OCs recommended condensing and simplifying the rubric as it was too long, and many attributes/competencies were not relevant for performance at OCS ($n = 7$). The survey comments

also reflected the sentiment that peer assessments are generally not useful if feedback about the results is not communicated to the OCs afterwards ($n = 10$).

The data collection tool and process were refined based on a few usability issues that emerged during the testing. First, the formulas in the rankings tab were hidden to protect them if end users click on certain cells. Second, the process for viewing/editing previous ratings in the peer assessment tab was improved by ensuring that the form clears appropriately when the OC selects a new peer to rate from the dropdown menu. Third, the file pick-up and drop-off in the respective shared drive folders was optimized to reduce risk for user error. As per the described workflow, OCs drag and drop a blank data collection tool file from the pick-up folder to their desktop, and then open the file from their desktop to begin completing the peer assessment. During the testing, it was observed that many OCs saved the completed form to their desktop as well when they finished the peer assessment. Although the completed file has a timestamp at the end if saved appropriately, the full file name was not visible when viewed as a desktop tile. This introduced the risk for an OC to mistakenly drag and drop the wrong (blank) file to the drop off folder on the shared drive. As a result, the tool functionality was refined so the timestamped file overrides the non-timestamped file on the desktop when saved. In addition, the word “FINAL” was automatically added to the beginning of the timestamped file name so that it is easier to locate after saving. Lastly, the content of the integrated instructions was edited to improve clarity about certain steps of the process (e.g., how to reorder rankings on the rankings tab; selecting at least one and up to three Sustains/Improves from the whole list of 29 attributes rather than at least one and up to three attributes/competencies from each category such as Character, Presence, Intellect, etc.).

After each peer assessment, the data were successfully imported and synthesized using the compiler tool. At the end of the cycle, the research team obtained feedback from OCS leadership about the need to slightly refine how data are presented in the compiler tool dashboards to make it easier for someone who is unfamiliar with the OCS peer assessment process to interpret the output (e.g., aggregated comments, rank calculations). To address this concern, tab overviews, clearer headers, and more comprehensive descriptions were added that clearly mark and describe the main sections and columns/rows of each tab.

Discussion

The present research describes the development and testing of an Excel-based peer assessment for OCS that is compatible with the Army network and meets identified instructional and programmatic needs. This assessment digitizes the existing OCS paper-based peer assessment forms and expedites the collection and synthesis of peer data. The digital peer assessment tools and process for conducting the digital assessment were iteratively tested and refined at all stages of the research to maximize their utility and sustainability in the target environment. User guides were developed to facilitate all steps of the process including file share over the secure Army network, data collection, data import, compilation of results, and interpretation of the dashboards.

As described, qualitative and quantitative utility and usability feedback data were collected from end users to evaluate the digital peer assessment. Overall, the data collection tool

and process were perceived as user-friendly, intuitive, and useful. Although OCs noted that the rubric was helpful for evaluating peers and writing actionable comments, there was an identified need to refine and streamline the rubric so that it is more relevant and useful for assessment at OCS.

Through the research effort, opportunities were uncovered to enhance the process for providing feedback based on the peer assessment results. Despite the added efficiencies, the utility of a digital peer assessment is limited if it not used for formative purposes (i.e., to help student growth) in addition to summative purposes (i.e., to calculate course grades). For instance, if students do not receive any feedback based on the results, they may not see the value of peer assessments and may therefore reduce the amount of time and effort dedicated to writing meaningful comments. As demonstrated in past research (van Zundert et al., 2010), student attitudes toward peer assessments matter for learning outcomes. In light of this, it was important to ensure that the digital peer assessment provides cadre with the capability to produce the compiled feedback for all OCs quickly and easily. Of course, the manner in which the feedback is shared with the student is also an important determinant of the utility of peer assessments. It is critical, therefore, that the affordances provided by the digital solution be coupled with effective communication tactics to help maximize learning outcomes for students.

The developed digital tools are not only useful and usable but also versatile and flexible and can be adapted to provide additional types of tracking and reporting capabilities that may be needed in the future. Thus, the tools and process can be updated based on user feedback to create additional efficiencies and respond to evolving training needs and programmatic priorities. Though the explicit focus of the current research was on a specific Army training context (OCS), similar assessment tools can be developed and employed to support the provision of formative and summative feedback in other instructional contexts. Future research could also examine the feasibility of importing data from the Microsoft Excel tool to a learning management system, such as Blackboard.

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Appendix A

Integrated Instructions for the Digital Peer Assessment Form

STEP 1: For the first OC, complete the 5 fields *highlighted in yellow* at the top of the form.

Assessment Info (Please Complete Items in Yellow)				Completed Ratings			What have you done (or could you do in the future) to help this OC improve?
Company	Charlie	Select Your Name		RM	MP	FA	
Platoon	_P1	Select Soldier to be Rated		LL	RL	RP	
Squad	P1_S1	Would you trust this person to lead Soldiers?		HO	GS	XM	
Assessment Period	T2	How would you rank this soldier in the SQ? (1 = best OC in squad)		EH	GH	EB	

STEP 2: *Complete the Sustains* portion of the form. Select at least 1 and up to 3 competencies or attributes from the total list of 29 items on the Leadership Rubric. **To select an item on the list**, click the cell to the right of the desired item. A green "X" should appear. Double click to remove an "X." When finished, **add a comment** for each sustains you selected. Describe why you view the attribute/competency as a strength for the OC.

Sustains Rubric		
<p>SUSTAINS INSTRUCTIONS: Scroll down to select 1-3 sustains from <i>entire</i> list of 29 attributes/competencies listed below. Select a maximum of 3 total <i>across</i> categories on this side.</p>		
Character	Select	Add Comments for Selected Items Only
Loyalty	X	Add comments for selected items only. Ensure comments are specific, concrete, constructive, and actionable.
Duty	X	Add comments for selected items only. Even though there is only room for two lines to display here, you can type as many lines as needed in this box.

Note: *To access the rubric for each attribute/competency*, double click the item name. A pop-up will appear, like the one below.

No-Go (N)		Go (Y)	
Duty	<ul style="list-style-type: none"> • Fails to meet obligations, accomplish tasks, or fulfill responsibilities unless pushed by authority • Does not attempt to clarify leader's intent when unsure • Takes unnecessary risks; does not consider costs or consequences • Unnecessarily wastes self and subordinates' time and resources; does not prioritize; wastes downtime 	Duty	<ul style="list-style-type: none"> • Meets obligations individually and as a team; accomplishes tasks and fulfills responsibilities, even when not observed by authority • Takes the initiative to ask questions and gathers information when unsure of leader's intent • Weighs the consequences, costs, and benefits of necessary risks • Proactively ensures that both self and subordinates have the time and resources to accomplish tasks and mission; effectively balances conflicting priorities; optimizes use of white space

STEP 3: *Complete the Improves* portion of the form. Select at least 1 and up to 3 competencies or attributes from the total list of 29 items on the Leadership Rubric. When finished, **add a comment** for each item you selected. Explain why you identified the attribute/competency as needing improvement, and how the OC might be able to improve. Please write comments that are **specific, concrete, constructive, and actionable**, especially for the Improves. For example, stating that your peer is a jerk will not help him or her improve. In contrast, stating that your peer needs improvement on "discipline" and describing that individual's tendency to talk in formation would provide your peer and cadre with actionable and useful feedback.

Improves Rubric		
<p>IMPROVES INSTRUCTIONS: Scroll down to select 1-3 improves from <i>entire</i> list of 29 attributes/competencies listed below. Select a maximum of 3 total <i>across</i> categories on this side.</p>		
Character	Select	Add Comments for Selected Items Only
Loyalty		
Duty	X	Add comments for selected items only. Ensure comments are concrete, constructive, and actionable, especially for Improves.

STEP 4: When all fields are complete, click the "**Click Here to Save Form**" button to save your ratings. This button can be found in the top, left-hand corner of tab. **To change ratings you've already submitted**, select the desired person from the dropdown, adjust existing ratings as needed, and re-save the form. This will overwrite the existing ratings.

STEP 5: Repeat steps above for the next OC in your squad, until all OCs have been rated. When all ratings are complete, continue on to the **Rankings tab**.

Appendix B

Integrated Instructions for the Compiler Tool Overall Dashboard

Auto Fit Rows | **Hide Blanks** | **Help** | **OVERALL DASHBOARD:** Summarizes assessment results for each soldier over time [i.e., across three assessment periods]. Results include *Ranking Results* [i.e., average rank (avg), raw score (raw), and points (pts)], *Trust Results* [i.e., percentage of peers who said they would trust the soldier as a leader in combat], and *Peer Votes / Aggregated Peer Comments* broken down by competency/attribute, assessment period [T1, T2, T3, Total], and rating type. This dashboard also displays *Overall Peer Comments* and *Roster Notes*.

Select Soldier Here | **106 Poore, Ramiro A** | **Select Soldier from dropdown.**

Adjust row height to ensure all peer comments are fully displayed.

Hide all rows for the Sustains and Improves tables that do not contain ratings or comments.

Overview of the dashboard.

Assessment Period	PLT	Avg	Raw	Pts	Trust	Notes Documented on Roster Tab for Each Assessment Period
First Assessment (T1)	P1_S1	6.67	0.76	15.26	75%	Notes Ramiro Poore P1_S1_T2_106.
Second Assessment (T2)	P1_S1	6.75	0.76	15.18	75%	Notes Ramiro Poore P1_S1_T2_106.
Third Assessment (T3)	P1_S1	6.75	0.76	15.18	75%	Notes Ramiro Poore P1_S1_T3_106.

Ranking Results

Assessment Period	PLT	Avg	Raw	Pts	Trust	Notes Documented on Roster Tab for Each Assessment Period
First Assessment (T1)	P1_S1	6.67	0.76	15.26	75%	Notes Ramiro Poore P1_S1_T2_106.
Second Assessment (T2)	P1_S1	6.75	0.76	15.18	75%	Notes Ramiro Poore P1_S1_T2_106.
Third Assessment (T3)	P1_S1	6.75	0.76	15.18	75%	Notes Ramiro Poore P1_S1_T3_106.

SUSTAINS RESULTS

Competency / Attribute	Peer Votes by Period	Period	Aggregated Peer Comments for each Assessment Period		
Category 1: Character	Total	T1	T2	T3	Note: Individual peer comments are separated by slash.
Loyalty		T1			
		T2			
		T3			
Duty	4	2	1	1	Comment sustains duty Poore. / Comment sustains duty Poore. /
		T2			Comment sustains duty Poore. /
		T3			Comment sustains duty Poore. /

Ranking results.

Trust results.

Roster Notes.

Category of Competency/Attribute

Assessment period.

Peer votes by period.

Aggregated peer comments by period and Competency/Attribute (separated by slash).

Competency / Attribute	Peer Votes by Period	Period	Aggregated Peer Comments for each Assessment Period		
Category 1: Character	Total	T1	T2	T3	Note: Individual peer comments are separated by slash.
Loyalty		T1			
		T2			
		T3			
Duty	4	T1			Comment sustains duty Poore. / Comment sustains duty Poore. /
		T2			Comment sustains duty Poore. /
		T3			Comment sustains duty Poore. /
Respect	9	3	3	3	Comment sustains respect Poore. / Comment sustains respect Poore. / Comment sustains respect Poore. /
		T2			Comment sustains respect Poore. / Comment sustains respect Poore. / Comment sustains respect Poore. /
		T3			Comment sustains respect Poore. / Comment sustains respect Poore. / Comment sustains respect Poore. /
Selfless Service		T1			
		T2			
		T3			
Personal Courage	2		1	1	Comment improves personal courage Poore. /
		T2			Comment improves personal courage Poore. /
		T3			Comment improves personal courage Poore. /
Warrior Ethos	2		1	1	Comment improves warrior ethos Poore. /
		T2			Comment improves warrior ethos Poore. /
		T3			Comment improves warrior ethos Poore. /
Empathy	2		1	1	Comment improves empathy Poore. /
		T2			Comment improves empathy Poore. /
		T3			Comment improves empathy Poore. /
Confidence	9	3	3	3	Comments improves confidence Poore. / Comments improves confidence Poore. / Comments improves confidence Poore. /
		T2			Comments improves confidence Poore. / Comments improves confidence Poore. /
		T3			Comments improves confidence Poore. / Comments improves confidence Poore. /

List of Competencies and Attributes.

IMPROVES RESULTS

Competency / Attribute	Peer Votes by Period	Period	Aggregated Peer Comments for each Assessment Period		
Category 1: Character	Total	T1	T2	T3	Note: Individual peer comments are separated by slash.
Selfless Service	12	4	4	4	Comments improves selfless service Poore. / Comments improves selfless service Poore. / Comments improves selfless service Poore. /
		T2			Comments improves selfless service Poore. / Comments improves selfless service Poore. / Comments improves selfless service Poore. /
		T3			Comments improves selfless service Poore. / Comments improves selfless service Poore. / Comments improves selfless service Poore. /
Personal Courage	2		1	1	Comment improves personal courage Poore. /
		T2			Comment improves personal courage Poore. /
		T3			Comment improves personal courage Poore. /
Warrior Ethos	2		1	1	Comment improves warrior ethos Poore. /
		T2			Comment improves warrior ethos Poore. /
		T3			Comment improves warrior ethos Poore. /
Empathy	2		1	1	Comment improves empathy Poore. /
		T2			Comment improves empathy Poore. /
		T3			Comment improves empathy Poore. /
Confidence	9	3	3	3	Comments improves confidence Poore. / Comments improves confidence Poore. / Comments improves confidence Poore. /
		T2			Comments improves confidence Poore. / Comments improves confidence Poore. /
		T3			Comments improves confidence Poore. / Comments improves confidence Poore. /

Notice all blank rows have been hidden using the Hide Rows button.

Appendix C

Peer Assessment Tool Utility and Usability Survey for Officer Candidates

Instructions: Think about your experience using the Excel-based tool to complete peer assessments at OCS. Please select the degree to which you agree or disagree with each statement below on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

Confidentiality: This survey is for research purposes only. Your responses are confidential, will not impact your standing in OCS, and will not be shared with your leadership, cadre, or peers.

Statement	1 = Strongly Disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
1. The peer assessment tool was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I quickly learned how to use the peer assessment tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. It was easy to remember how to use the peer assessment tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The tool interface was user friendly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The tool interface was organized well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The tool content was easy to read.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. The tool content was easy to understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. The integrated instructions were helpful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The integrated leadership rubric was helpful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The steps I had to follow to complete the assessment were simple.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I knew exactly where to go within the tool to complete an assessment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. It was easy to navigate between the different sections of the tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. It was easy to find what I was looking for in the tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I never lost track of where I was in the tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. It was easy to tell when I had completed an assessment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. It was easy to tell if I missed a step in the assessment process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. It was easy to tell if I made a mistake in the tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. If I made a mistake, it was easy to fix it in the tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. The process for accessing and saving the tool files was easy to follow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The tool allowed me to provide feedback efficiently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. The tool facilitated constructive feedback on peer performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I felt confident using the peer assessment tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I would recommend this peer assessment tool to others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I would use this peer assessment tool in the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. Did you receive a printout of your individual compiled peer assessment results? (Select one)

- Yes** (If this option is selected, please respond to item #26.)
- No**, I only got verbal feedback based on the peer assessment results.
- No**, I did not receive any feedback at all based on the peer assessment results.
- No**, but I received other feedback based on the peer assessment results (Please describe: _____)

26. If you received a printout of your individual peer feedback, please let us know what you thought about the way in which the feedback was presented in the form. Was it useful? What did you like/dislike about it? How could it be improved?

Optional Comment: Please provide any other feedback you may have about the digital peer assessment tool/process and share suggestions for improvement.