FEATURE ARTICLES

# Identifying the Competencies of Air Force Ethical Leadership

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In a previous article, *Leadership and Ethics across the Continuum of Learning: The Ethical Leadership Framework* (Tatum et al., 2019), the authors introduced the Ethical Leadership Framework (ELF). The ELF is a conceptual model for how Air University, under its 5-year Quality Enhancement Plan (QEP), which is a required component of the SACSCOC reaccreditation process for Air University), is pursuing a more deliberate effort to focus on the nexus of strategic and ethical decision-making competencies across its key leadership development programs. The ELF is premised on the notions that 1) ethics and ethical frameworks need to be wholly incorporated into leader and leadership development, rather than being treated as specialty subjects, and 2) development occurs across individual, team, and organizational levels. Additionally, to ensure development opportunities and prepare Airmen and Guardians for the Department of the Air Force's complex global mission sets and the dynamic strategic

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environment, the framework focuses on three strategic capacities as foundational strategic leader behaviors: absorptive, adaptive, and decision-making. *Absorptive capacity* is an "individual's ability to learn through directed and self-directed learning and to apply the knowledge to specific contexts" (Boal & Hooijberg, 2000; Tatum et al., 2019, p. 44). *Adaptive capacity* is an "individual's ability to change or adapt in moments of incongruence, complexity, and changing environments" (Tatum et al., 2019, p. 45; Boal & Hooijberg, 2000; Boal & Whitehead, 1992; Hooijberg, Hunt, & Dodge, 1997). Finally, *decision-making capacity* is the "ability to understand individual and organizational actors, individual and organizational relationships, and how to make decisions at the appropriate time while creating and maintaining relationships" (Tatum et al., 2019, p. 45; Gardner, 1985; 1993; Sternberg, 1985; Zaccaro et al., 1991).

As part of the QEP's Year 1 efforts, the authors conducted a study to identify and define the core competencies that characterized an ethical Air Force leader. Data collection and analysis followed a mixed-methods approach. The method was an adaptation of the competency-based curriculum design process (Koszalka et al., 2013) developed by Laura Parson. The Decolonizing Approach to Competency-based Curriculum Design (DA-CBE) (see Parson & Weise, 2020; Parson & Miller, in development) is a method of curriculum design that expands the sources of data that inform curriculum development through a competency-design process (see Figure 1). A competency-based (CBE) curriculum design process begins by identifying the desired knowledge, skills, and attitudes (KSAs) one should develop by the conclusion of the course, workshop, or program to be considered competent in the desired profession, field, or skill. By seeking the input from a wide variety of stakeholders including students, faculty, future supervisors, and community leaders, the DA-CBE seeks a broader understanding of the spectrum of desired outcomes of a curriculum to ensure the curriculum meets the needs of all stakeholders. In addition to the data collected from key stakeholders, the DA-CBE method collects and analyzes a rich resource of textual documents to inform competency development. Those include scholarly research on the current state of the field, research and reports on desired attributes of graduates from the course or program, evaluation standards for professionals in that field, and reports on the ethics and values of the field. Those documents, paired with data from the interviews and focus groups with stakeholders, are the dataset from which competencies are identified and developed for Step 1 of the process. In the present study, Step 1 resulted in a draft list of Air Force ethical leader competencies.

Step 2 of the competency development process begins after competencies are identified, and key stakeholders validate identified competencies through triangulation with the literature and review. Specifically, after competencies were developed, we explored and refined the list of competencies through a quantitative assessment that combined three validated measures

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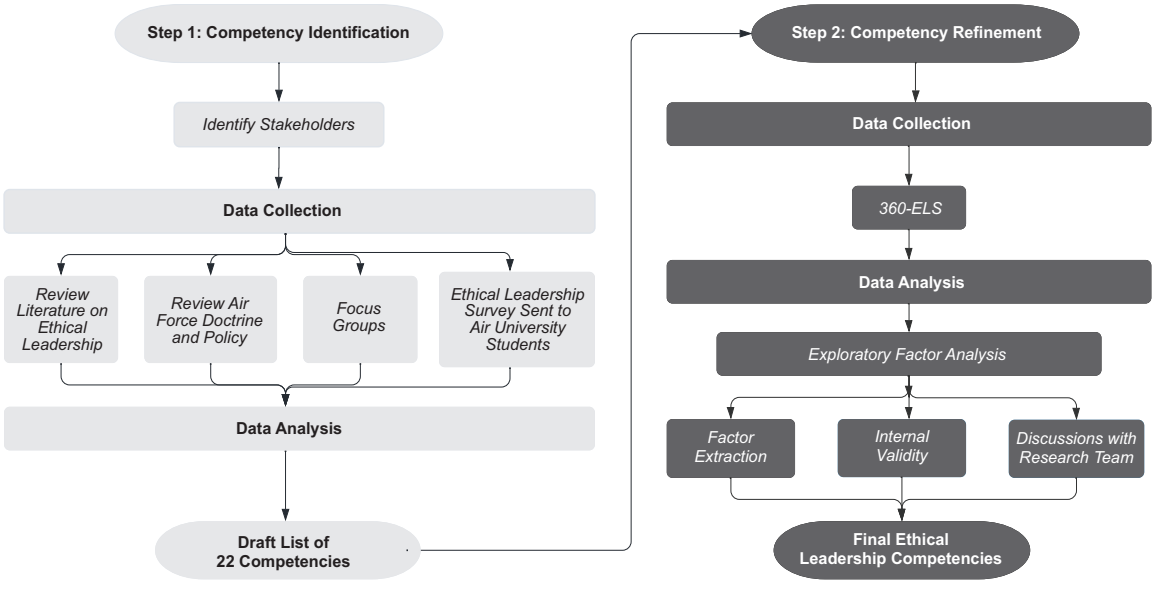
**Figure 1**

***Decolonizing Approach to Competency-Based Curriculum Design (DA-CBE; Parson & Weise, 2020)***




This method was used to identify and refine the core competencies of an ethical leader in the Air Force. Step 1 involves identifying competencies through stakeholder informants and qualitative analysis. Step 2 involves the refinement of the competencies identified in Step 1 through a quantitative survey (360-ELS) that measures leadership in the Air Force context.

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of ethical leadership (360-ELS). We developed this measure to refine the list of the competencies of an ethical leader and to create a baseline measure that would allow us to assess ethical leader development after implementing ethical leadership-focused curriculum. In this manuscript, we report on the competency development process, the quantitative survey analysis, and present the list of ethical leadership competencies that resulted from the two steps of the competency identification process. We begin by describing the process and results of Step 1, the qualitative portion of data collection and analysis. Second, we describe Step 2, where we refined the list of competencies. Finally, we present the list of competencies that resulted from Steps 1 and 2 and discuss next steps.

## Step 1: Competency Identification

The goal of Step 1 was to identify initial competencies of an ethical leader in the Air Force. The research questions that guided Step 1 sought to understand the views of desired skills and attributes from multiple perspectives. Specifically, we sought to identify the following:

1. What are the competencies of an ethical leader in the Air Force context?
2. What does the research say about ethical leadership?
3. What do Air University faculty and staff say about ethical leadership in the Air Force?
4. What does Air Force doctrine and policy say about ethical leadership in the Air Force?
5. What do Air University students say about ethical leadership in the Air Force?

We began Step 1 with the identification of key stakeholders. Key stakeholders are those who can speak to a course or program's desired skills and attributes (Koszalka et al., 2013; Parson & Weise, 2020). In this study, the key stakeholders were Air University faculty and leadership (referred to as the working group) and Air University students. Once key stakeholders were identified, we began the data collection process.

### *Data Collection*

The data collected that informed competency identification included scholarly literature, Air Force doctrine including evaluation and promotion documents, focus groups with members representing all key AU leadership programs, and a survey distributed to Air University students. First, we conducted a literature search on ethical leadership inside and outside of military. The literature search expanded across disciplines and included identifying leadership and ethical leadership competencies across fields. Second, we collected data through three focus groups with members from across AU programs that asked Air University faculty and staff to define leadership, ethics, and challenges to teaching ethical leadership. Those focus groups were recorded and transcribed. Third, we identified relevant Air Force doctrine and policy, including promotion documents, core

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doctrine, and leadership training handbooks. Finally, we conducted an Ethical Leadership Survey sent to Air University students that asked them to respond to the following questions qualitatively: How do you define ethics? How do you define ethical leadership? What are challenges to teaching ethical leadership? What changes need to be made to ethical leadership to make it more successful? We received over 7,500 responses to the ethical leadership survey. Although we did not collect data on the number of students the survey was distributed to, estimated enrollment at Air University is around 54,000.

*Data Analysis*

After data collection was completed, we began the process of translating the collected data into competencies following the DA-CBE model (Parson, 2021; Parson & Weise, 2020; Parson & Miller, in development). That process began by qualitatively coding the survey responses into significant statements. First, we coded each data set into significant statements (excluding leadership and ethical leadership competencies). Statements were defined as one significant core concept, either a challenge of ethical leadership or a characteristic/anti-characteristic of an ethical leader. Second, we organized significant statements into four categories: current state, professional standards, ethics and values, and vision of the future. These four categories are identified in the International Board of Standards for Training, Performance, and Instruction (IBSTPI) generic competency design model (Koszalka et al., 2013). Next, we coded each significant statement into a competency. A competency is defined as knowledge, skill, or attitude (KSA; Koszalka et al., 2013). We used existing competencies when available, beginning with the draft AETC Foundational Competency List (FCL) and, when a KSA was not represented in the FCL, using leadership competencies from professional organizations outside of the Air Force context (Parson, 2021; Parson & Miller, in press). Finally, if leadership competencies could not be identified in existing literature, we created new competencies. This resulted in a draft list of 22 competencies and refined further in Step 2.

Next, we presented the draft competencies to the AU QEP Standing Working Group for validation and review. While we refined the definitions from feedback gathered during that meeting, no significant changes to the competencies resulted from those reviews, but we did flag seven competencies for future refinement or elimination due to some conflation or overlap between definitions. We identified these seven competencies because of difficulty, at times, differentiating which competency a significant statement should be categorized as during the coding process. The competencies we identified as having overlapping definitions and were thus difficult to differentiate between were: (a) Decision Making, Critical Thinking, and Strategic Thinking; (b) Self-Control and Resilience; and (c) Influence and Change Management.

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## Step 2: Competency Refinement

After the draft competencies were identified, we sought to refine the list of competencies through a quantitative assessment that combined three measures of ethical leadership. We developed this measure both to refine the list of the competencies of an ethical leader as identified in Step 1 and to create a baseline measure so we could comprehensively assess ethical leader development after implementing ethical leadership-focused curriculum. Specifically, we combined three validated measures of ethical leadership: the Moral Metacognition Scale (MMS) (McMahon & Good, 2016), the Organizational Ethical Culture Measure (OECM) (Huhtala et al., 2018), and the Ethical Leadership Questionnaire (ELQ; Yukl et al., 2013).

The research questions for Step 2 that guided our data collection and analysis asked:

1. What ethical leadership competencies were represented in the ethical leadership measures?
2. How does a baseline assessment using traditional ethical leadership surveys inform understanding of ethical leadership competencies?
    a. Did we miss any competencies included in traditional measures of ethical leadership?
    b. Which competencies identified in Step 1 were not represented in the existing ethical measures?

We sought to answer these research questions by developing a comprehensive survey measuring ethical leadership with the Air Force context (referred to as a 360 Ethical Leadership Survey; 360-ELS) that combined existing measures and tailored those measures for the Air Force context. We combined validated scales to design the 360-ELS in order to create a measure that included ethical leadership scales developed independent of our research team. We did not create questions to measure the draft list of competencies, because we wanted the 360-ELS to serve as one way we could validate and refine that list of competencies. After implementing the survey, we used exploratory factor analysis to identify which factors loaded on the new scale and compared those to the draft list of competencies identified in Step 1. At the conclusion of that process, we refined our draft list of ethical leadership competencies to create the final list of ethical leadership competencies (see Table 3).

### *Participants/Sample*

At the time the survey was distributed to Air University students, the estimated total number of enrolled students was 54,000. However, because of the nature of Air University and the way that "student" is defined (e.g., anyone enrolled in ROTC, civilian development courses, distance learning eSchool courses), the actual number of who could be an active student and, therefore, received the email invitation to complete the survey is unknown. Our best estimate given previous survey distribution rates is that around 8,500 students saw the email invitation to complete the survey. From that sample, 1,935 Airmen responded to the survey (see Table 1). The description of the demographic categorization of Airmen was as follows: non-supervisory Airmen included officer, enlisted, and civilian Airmen who have not served (currently or formerly) in a designated supervisory position. These generally included officer ranks O-1 through O-3, enlisted ranks E1 through E4, and all government service (GS) non-supervisory positions. Supervisory Airmen (non-senior level) included officer, enlisted and civilian Airmen who are currently serving or have served in formal supervisory positions below the Group/Wing level, or staff equivalent. This generally included ranks O-3 through O-5, E-5 through E-8, and GS

**Table 1**
***360-ELS Survey Participant Demographics***

| | N |
|---|---|
| Non-supervisory Airmen | 725 |
| Supervisory Airmen | 925 |
| Senior Leader Airmen | 117 |
| Cadet/Officer Candidate | 437 |
| Enlisted | 474 |
| Officer | 586 |
| Civilian | 225 |
| AU Faculty | 112 |

supervisory positions, GS-14 and below. Senior Leader Airmen included officer, enlisted, and civilian Airmen who were serving or had served in leadership positions at the Group/Wing level and above or staff equivalent. This generally included ranks O-6 through O-10, E-9, and GS-15, AD-24, and Senior Executive Service (SES) civilians. Additionally, Airmen demographics included Cadet/Officer Candidates, Enlisted, Officers, Civilians, and Air University Faculty.

***Survey Instrument and Measures***

Our goal in developing the 360-ELS was to create an assessment that measured each leadership domain, individual, team, and organization to create a 360-degree view of ethical leadership within the context of the Air Force (Tatum et al., 2020). Because no one measure available to us assessed all three domains, we combined three validated measures of ethical leadership, the ELQ, the MMS, and the OECM to create a new measure of ethical leadership. First, the ELQ was adapted from Yukl et al. (2013); the 360-ELS had two versions of the ELQ that were rank dependent. For Airmen in non-supervisory roles, the ELQ measured their perceptions of the ethical leadership of their leaders/supervisors. For Supervisory Airmen, Senior Leadership Airmen, and Air University Faculty, the ELQ measured the perceptions of their ethical leadership of themselves and their supervisees. The MMS was adapted from McMahon and Good (2016) and was used to measure Airmen's individual ethical competence and self-knowledge of an ethical leader. For senior leaders, it was also used to assess their competency as strategic-ethical leaders. The Organizational Ethical Culture Measure (OECM) was adapted from Huhtala et al. (2018) and was used to assess Airmen's understanding of the organizational domain of ethical leadership. The OECM prompted Airmen to assess the current state of strategic-ethical leadership development and measure the success of the leadership development framework outlined in the QEP. For senior leaders, the OECM provided an assessment of AU Faculty expertise in leadership development and competence. There were 103 dependent variables and two independent variables in the 360-ELS. Each measure used a 6-point

Likert scale (MMS; 1 = very strongly disagree, 6 = very strongly agree; ELQ and OECM; 1 = strongly disagree, 6 = strongly agree).

After combining the three measures, we adapted the measures for the Air Force context, which required, in part, naming the Air Force specifically—replacing references to "organization" or "institution", and by using Air Force leadership hierarchies. Next, we created three versions of the survey according to the leadership level of those who would be taking the survey so that questions were appropriate for the respondent's institutional vantage point. Version A was for those with limited or no supervisory responsibilities; it sought to assess both the individual's perceptions of their own ethical leadership development and to understand their assessment of the ethical leadership of their supervisor and of the Air Force as an organization. Version B was for what would be considered mid-level management. These Air Force leaders had supervisory experience but were not at the top levels of leadership. Questions in Version B sought to assess the leader's perceptions of their own ethical development as an individual, as a leader, and to assess the overall ethics of the Air Force as an organization. Finally, Version C was delivered to the most senior leaders and sought to assess their own assessment of themselves as an ethical leader, their efficacy in directing the Air Force as an ethical organization, and their assessment of the Air Force as an ethical organization. Respondents answered demographic questions at the beginning of the survey to determine which version of the survey they would complete.

Our goal in the 360-ELS was to provide a 360-degree view of the state of ethical leadership in the Air Force, and we sought to provide that perspective with three versions designed to generate perspectives from the specific vantage point of the respondent. Because the goal of the ELS-360 was to be a comprehensive, 360-degree view of the ethical leadership within an institution, we conducted our analyses across versions to create a comprehensive picture of the individual, group, and organizational aspects of ethical leadership within the Air Force context[1]. The decision to analyze across versions was reinforced through our factor analysis process: Factor loadings (Table 2) were very high, leading to distinct factors with very few items loading onto two factors.

***Data Analysis.*** Data was analyzed using SPSS. The purpose of the analysis was to validate the 360-ELS as a measure of ethical leadership within the Air Force context by examining which competencies were assessed with the 360-ELS, and to provide a baseline measurement from which we could assess ethical leadership development of Airmen in the U.S. Air Force and Air University.

***Exploratory Factor Analysis.*** We used exploratory factor analysis (EFA) to determine if similar factors loaded on the same construct (Costello & Osborne, 2005). The purpose of EFA is to reduce the data into factors that explain the majority of the data. To determine if the data were appropriate for factor analysis, we calculated the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity (Watkins, 2018). The KMO was high at 0.954 and the Bartlett's test was significant ($p < .001$), so the data were appropriate for factor analysis.

1 For example, while word differences across versions were small (e.g., "I am" versus "My supervisor is"), those differences changed the nature of some questions from an external measure of a dimension of a supervisor's ethical leadership development to a measure of one's perceptions of their own ethical leadership development in that dimension. This provided two views of leadership development in that dimension. This approach also informed the main goal of the study reported on this manuscript, to create and validate the competencies of an ethical leadership, by collecting data on the individual, group, and/or organizational components of ethical leadership competencies.

***Factor Extraction.*** Factor extraction methods involved using maximum likelihood estimates and oblique rotation. Maximum likelihood estimates were highly used in the literature (Fabrigar, et al., 1999; McMahon & Good, 2016) and were appropriate because "it allows for the computation of a wide range of indexes of the goodness of fit of the model and permits statistical significance testing of factor loadings and correlations among factors and the computation of confidence intervals" (Fabrigar et al., 1999, pp. 277). Oblique rotation was used instead of orthogonal rotation because oblique rotation methods assume the factors are correlated. Since behaviors usually do not function independently of each other, oblique rotation was the best choice for factor analysis in this study (Costello & Osborne, 2005). Therefore, in SPSS, we used the Promax rotation.

We used multiple methods to determine the number of factors. First, we used eigenvalues greater than 1 to determine factor loadings. Any factors with an eigenvalue greater than 1 was retained. We also visually assessed a scree plot to determine the approximate number of factors to retain in the factor analysis and confirmed that the scree plot and eigenvalues matched. To visually assess a scree plot, we looked for a break in the curve and then determined the number of factors before the break. The factor analysis determined 16 factors loaded on the data of the 360-ELS.

Because we used maximum likelihood with oblique rotation as the factor extraction method, we assessed the factor plots to determine the best fit to the data and which factors to retain (Costello & Osborne, 2005). After rotation, we selected the tables with the cleanest factor structure, which meant there were item loadings above 0.40, no or few item cross loadings, and no factors with fewer than three items (Costello & Osborne, 2005). Given these criteria and an oblique factor rotation method, the pattern matrix was the best fit to the data. Next, we assessed the item loadings on each factor. Any loadings .40 or greater indicated a strong loading on that factor and were retained for further analysis.

***Internal Reliability of Items.*** To determine the reliability of the scales we used in the 360-ELS, we calculated Cronbach's alpha for each factor (16 Cronbach's alphas) (see Table 2). Cronbach's alpha is a reliability measure that determines the validity of the scale used to measure each construct. Overall, Cronbach's alpha was high for each factor.

***Factor Assessment.*** Next, we matched factors and factor loadings to the response codes and questionnaire items to qualitatively determine which competencies were assessed by the 360-ELS. Authors Parson and Steele compared survey items for each factor group, and discussed the underlying nature of each set of survey items that loaded onto a factor to give the corresponding factor a name. We compared survey questions that loaded onto each factor with the competency definitions to assign a competency to each factor. After evaluating survey questions, we labeled each factor as one of the 22 draft competencies identified in Step 1. Labeling factors during the factor analysis process is inherently subjective and subject to bias. Therefore, to seek validity, additional members of the research team explored the survey questions and assigned competencies independently to validate if the competency labels were appropriate. Still, it is possible a different group of individuals not involved in Step 1 would have labeled factors differently.

***Draft Competency List Refinement.*** Our refinement of the list of competencies was informed by the 360-

**Table 2**

*Factor Loadings of 360-ELS by Competency (Items from Version A)*

**Equitable** α = .945

| Item | Question | Factor Loading |
|---|---|---|
| Discuss_4 | In my immediate working environment, there is adequate opportunity to correct unethical conduct. | .928 |
| Discuss_3 | In my immediate working environment, there is ample opportunity for discussing moral dilemmas. | .896 |
| Discuss_1 | In my immediate working environment, there is adequate opportunity to discuss unethical conduct. | .866 |
| Discuss_2 | In my immediate working environment, reports of unethical conduct are taken seriously. | .860 |
| Support_4 | In my immediate working environment, everyone treats one another with respect | .818 |
| Sanction_1 | In my immediate working environment, ethical conduct is valued highly | .792 |
| Sanction_3 | In my immediate working environment, employees will be disciplined if they behave unethically | .727 |
| Support_2 | In my immediate working environment, a mutual relationship of trust prevails between Airmen and Senior Leadership | .717 |
| Transparency_3 | In my immediate working environment, adequate checks are carried out to detect violations and unethical conduct. | .694 |
| Sanction_2 | In my immediate working environment, ethical conduct is rewarded. | .616 |
| Sanction_4 | If I reported unethical conduct to management, I believe those involved would be disciplined fairly, regardless of their position. | .576 |

**Accountability** α = .972

| Item | Question | Factor Loading |
|---|---|---|
| Boss_4 | Is honest and can be trusted to tell the truth. | .951 |
| Boss_3 | Sets an example of ethical behavior in his/her decisions and actions. | .900 |
| Boss_5 | Keeps his/her actions consistent with his/her stated values (“walks the talk”) | .887 |
| Boss_10 | Regards honesty and integrity as important personal values. | .883 |
| Boss_8 | Insists on doing what is fair and ethical even when it is not easy | .832 |
| Boss_12 | Opposes the use of unethical practices to increase performance. | .799 |
| Boss_1 | Shows a strong concern for ethical and moral values. | .793 |
| Boss_7 | Can be trusted to carry out promises and commitments | .790 |
| Boss_2 | Communicates clear ethical standards for members. | .777 |
| Boss_11 | Sets an example of dedication and self-sacrifice for the organization | .750 |
| Boss_9 | Acknowledges mistakes and takes responsibility for them | .736 |
| Boss_13 | Is fair and objective when evaluating member performance and providing rewards | .734 |
| Boss_6 | Is fair and unbiased when assigning tasks to members | .689 |
| Boss_15 | Holds members accountable for using ethical practices in their work | .675 |

**Table 2**

*Continued*

**Decision-Making** α = .948

| Item | Question | Factor Loading |
|---|---|---|
| Meta_14 | I do a good job considering the important factors needed to make an ethical decision. | .839 |
| Meta_11 | I stop and review the elements of an ethical dilemma when I remain unclear. | .821 |
| Meta_15 | During the ethical decision-making process, I periodically check to make sure the ethical guideline I am using is effective in making an ethical decision | .821 |
| Meta_7 | I know when I need to consider the ethical aspects in a dilemma | .794 |
| Meta_20 | Before engaging in the ethical decision process, I determine the appropriateness of the ethical guideline I normally use to solve ethical dilemmas. | .792 |
| Meta_8 | After engaging in the ethical decision-making process, I ask myself if I successfully followed an ethical guideline | .786 |
| Meta_17 | I find myself pausing regularly to confirm that I am considering all aspects of an ethical dilemma. | .780 |
| Meta_18 | I try to make sense of an ethical dilemma by breaking down the main elements I need to consider. | .753 |
| Meta_5 | I know which factors are important to consider when making an ethical decision. | .733 |
| Meta_4 | I am good at making ethical decisions | .701 |
| Meta_10 | I know my strengths and weaknesses when it comes to making an ethical decision. | .680 |
| Meta_1 | I ask myself what is important before engaging in the ethical decision-making process. | .677 |
| Meta_6 | I consider several possible courses of action before making an ethical decision. | .670 |
| Meta_3 | I try to apply ethical guidelines that I found helpful when faced with ethical dilemmas in the past. | .632 |
| Meta_16 | I know what is ethical and unethical. | .605 |
| Meta_12 | I spend time reflecting on my decision after I have made it. | .603 |

**Communication** α = .933

| Item | Question | Factor Loading |
|---|---|---|
| Guidance_3 | Clarifies integrity guidelines | .937 |
| Guidance_1 | Clearly explains integrity related codes of conduct. | .920 |
| Guidance_2 | Explains what is expected from subordinates in terms of behaving with integrity | .838 |
| Guidance_6 | Stimulates the discussion of integrity issues among subordinates | .679 |
| Guidance_5 | Clarifies the likely consequences of possible unethical behavior by myself and my colleagues | .679 |
| Role_4 | Clarifies priorities | .576 |
| Guidance_7 | Compliments subordinates who behave according to the integrity guidelines | .553 |

**Service Mindset** α = .936

| Item | Question | Factor Loading |
|---|---|---|
| Fair_4 | Pursues his/her own success at the expense of others* | .950 |
| Fair_3 | Holds me responsible for things that are not my fault* | .944 |
| Fair_5 | Is focused mainly on reaching his/her own goals.* | .871 |
| Fair_6 | Manipulates subordinates* | .846 |

**Reverse coded items*

**Table 2**

*Continued*

**Empathy** α = .954

| Item | Question | Factor Loading |
|---|---|---|
| People_2 | Takes time for personal contact. | .830 |
| People_3 | Pays attention to my personal needs. | .823 |
| People_1 | Is interested in how I feel and how I am doing | .817 |
| People_6 | Sympathizes with me when I have problems | .773 |
| People_7 | Cares about his/her subordinates | .724 |
| People_5 | Is genuinely concerned about my personal development | .722 |
| People_4 | Takes time to talk about work-related emotions | .719 |

**Information Seeking** α = .911

| Item | Question | Factor Loading |
|---|---|---|
| Meta_19 | I am a better ethical decision maker when faced with an ethical dilemma that is about a topic I care about. | .952 |
| Meta_13 | I am a better decision maker when faced with an ethical dilemma that is important to me. | .905 |
| Meta_9 | I am a better ethical decision maker when faced with an ethical dilemma that is interesting to me. | .823 |
| Meta_2 | I am a better ethical decision maker when faced with an ethical dilemma that directly impacts me. | .665 |

**Integrity** α = .953

| Item | Question | Factor Loading |
|---|---|---|
| CoS_4 | My supervisor is honest and reliable | .901 |
| CoS_3 | My supervisor does as s/he says. | .872 |
| CoS_1 | My supervisor sets a good example in terms of ethical behavior | .855 |
| CoS_2 | My supervisor communicates the importance of ethics and integrity clearly and convincingly | .726 |

**Resilience** α = .972

| Item | Question | Factor Loading |
|---|---|---|
| Integrity_2 | Can be trusted to do the things he/she says | .856 |
| Integrity_3 | Can be relied on to honor his/her commitments | .828 |
| Integrity_1 | Keeps his/her promises | .811 |
| Integrity_4 | Always keeps his/her words. | .790 |

**Develops People** α = .780

| Item | Question | Factor Loading |
|---|---|---|
| Power_3 | Seeks advice from subordinates concerning organizational strategy | .742 |
| Power_4 | Will reconsider decisions on the basis of recommendations by those who report to him/her | .714 |
| Power_1 | Allows subordinates to influence critical decisions | .580 |
| Power_5 | Delegates challenging responsibilities to subordinates | .502 |
| Power_6 | Permits me to play a key role in setting my own performance goals | .473 |

**Table 2**

*Continued*

**Change Management** α = .935

| Item | Question | Factor Loading |
|---|---|---|
| CoM_2 | Senior Leadership sets a good example in terms of ethical behavior | .838 |
| CoM_1 | The conduct of Senior Leadership reflects a shared set of norms and values | .763 |
| CoM_3 | Senior Leadership communicates the importance of ethics and integrity clearly and convincingly | .692 |
| CoM_4 | Senior Leadership would never authorize unethical or illegal conduct to meet business goals. | .646 |

**Precision** α = .873

| Item | Question | Factor Loading |
|---|---|---|
| Org_3 | The Air Force makes it sufficiently clear to me how I should deal with external persons and organizations responsibly. | .835 |
| Org_2 | The Air Force makes it sufficiently clear to me how I should deal with confidential information responsibly | .775 |
| Org_1 | The Air Force makes it sufficiently clear to me how I should conduct myself appropriately toward others within the organization. | .746 |
| Org_4 | In my immediate working environment, it is sufficiently clear how we are expected to conduct ourselves in a responsible way | .507 |

**Organizational Leadership** α = .838

| Item | Question | Factor Loading |
|---|---|---|
| Transparency_2 | If my leader does something which is not permitted, someone in the Air Force will find out about it. | .679 |
| Transparency_4 | Senior Leadership is aware of the type of incidents and unethical conduct that occur in my immediate working environment | .402 |
| Transparency_1 | If a member of my unit does something which is not permitted, leadership will find out about it. | .535 |

**Teamwork** α = .821

| Item | Question | Factor Loading |
|---|---|---|
| Support_3 | In my immediate working environment, everyone takes the existing norms and standards seriously | .551 |
| Support_1 | In my immediate working environment, everyone has the best interests of the Air Force at heart | .518 |

**Resource Management** α = .937

| Item | Question | Factor Loading |
|---|---|---|
| Role_1 | Indicates what the performance expectations of each group member are. | .546 |
| Role_2 | Explains what is expected of each group member. | .603 |
| Role_3 | Explains what is expected of me and my colleagues | .468 |
| Role_5 | Clarifies who is responsible for what | .428 |

**Table 2**
***Continued***

| **Fosters Innovation** α = .937 | | |
|---|---|---|
| **Item** | **Question** | **Factor Loading** |
| Fair_2 | Holds me responsible for work that I have no control over* | .529 |
| Fair_1 | Holds me accountable for problems over which I have no control* | .527 |

**Reverse coded items*

ELS validation process[2]. Specifically, after assigning competencies to the factors identified in Step 1, we examined the seven competencies we determined were not measured in the 360-ELS. First, we revisited the competencies flagged in Step 1 as possibly being one competency to identify if, and how, those competencies could be collapsed into one category instead of being artificially divided into two. Informed by the survey questions and factor loadings, we combined the following competencies, because we determined they were either components of one broad competency or because they were sub-components of another competency. Specifically, Decision Making, Critical Thinking, and Strategic Thinking were collapsed into one competency called Decision Making. Resilience and Self-Control were collapsed into one competency called Resilience. Change Management and Influence were collapsed into one competency called Change Management. That led to a revised list of 18 competencies. Sixteen of the 18 competencies were assessed in the 360-ELS (See Table 2 for the final list of ethical leadership competencies with the related items). The two remaining competencies were determined to be separate competencies that were not assessed in the 360-ELS but will be included in future iterations of the 360-ELS. Those competencies were Results Focused and Initiative. After discussion with the entire research team and presentation of the competencies to the working group, it was determined that the 18 competencies reflected the KSAs of an ethical leader (See Table 3 for the final list of ethical leadership competencies with descriptions).

## Discussion

The qualitative and quantitative approaches to competencies' identification and validation allowed us to construct a list of 18 competencies of an ethical leader in the Air Force. We acknowledge there is an art to the selection of competencies and the way the data was interpreted. The coding of Step 1 data was subjective, and we sought, when possible, to use existing competencies, such as those in the then-draft AETC Foundational Competency List. Similarly, we acknowledge the potential for bias in the labeling of the factors in the 360-ELS survey. Our goal, through both coding and labeling processes, was to extend past literature using similar nomenclature, and to ensure our competencies related to, and in conversation, with existing Air Force doctrine and language on the topic of leadership competencies. Still, we sought to validate each choice through discussion with the QEP Standing Working Group as well as ongoing conversations as a research team. Finally, we validated competency

2 We combined validated scales to design the 360-ELS in order to create a measure that included ethical leadership scales developed independent of our research team. As a result, however, not all competencies were measured by the 360-ELS, because we intentionally did not create questions to measure each competency. Subsequent iterations of the 360-ELS will have questions that comprehensively measure each of the competencies (once finalized).

**Table 3**
*List of Final Competencies*

| Competency | Definition |
|---|---|
| Decision Making | Makes well-informed, effective and timely decisions. Identifies problems, evaluates alternative perspectives/solutions, makes timely and effective recommendations, and identifies multiple possible courses of action. Considers all possible outcomes and make the best decision considering all factors: mission, people, ethics, and outcomes. Decision making includes critical thinking: analytical, strategic, and creative thinking. |
| Accountability | Someone who takes responsibility for outcomes, sets an example for subordinates. Leading according to one's internal ethical compass. |
| Information Seeking | Self-development, pursuing and demonstrating self-knowledge and self-awareness, lifelong learning and skill development, establishes an information gathering habit. |
| Integrity | Acts in accordance with internal moral compass, loyal, honest, trustworthy, keeps promises, and is humble; behaves ethically even when no one is looking. |
| Equitable | A leader who is just, fair, treats all Airmen equally regardless of identity, religion, gender, and sexual orientation, and creates inclusive environments. |
| Empathy | Seeks to understand varied experiences of others through emotional perspective-taking to make decisions grounded in care and respect. |
| Precision | Strives to be their best, respects duty and authority, follows rules, and holds others to rules. |
| Develops People | Teaches and develops subordinates, trusts subordinates to do their work, takes care of subordinates and their families, and helps subordinates learn to be ethical. |
| Service Mindset | A leader who demonstrates a service mindset makes and focuses efforts to serve others and meet their needs; a service mindset but the needs of subordinates, the nation, and the Air Force before personal desires. |
| Resilience | Mentally, physically, spiritually, and emotionally ready for Air Force responsibilities through self-care practices including stress management techniques to prevent burnout. Regulates their emotions and acts to calm others in very stressful situations. Self-control is an essential aspect of resilience and also evidence of resilience. |
| Change Management | Demonstrates an ability to adapt, help others adapt, and is able to implement change with the goal of ensuring unit goals are properly aligned to the desired end state. Motivates others and ensures that others buy into the organization's mission, goals, climate, tone, and policy. Influence is an aspect of Change Management. |
| Teamwork | Encourages and empowers peers and subordinates, demonstrates followership, acts to promote a friendly climate, and practices conflict management. |

**Table 3**
***Continued***

| Competency | Definition |
|---|---|
| Results Focused | Mission-focused and commits resources and time to achieve mission success. A leader who is results focused sets challenging goals and takes action to achieve those goals. |
| Organizational Leadership | Sets an ethical climate and works to effect positive organizational change through the development and maintenance of systems, structures, policies, practices, procedures, and, if necessary, doctrine. |
| Communication | Clearly and effectively articulates intent in written and spoken formats, through effective presentations, and is able to promotes ideas and issues before a wide range of audiences. |
| Resource Management | Focuses sustainability, managing subordinate workload and appropriate delegation to maximize readiness, lethality, and improve organizational performance. |
| Fosters Innovation | Builds a culture of behaviors and business practices that encourages, champions, and rewards creativity and informed risk taking; rapidly adapts to new conditions and technologies. |
| Initiative | Anticipates and prepares for a specific opportunity that may not be obvious to others, does more than is required or expected, acts quickly and decisively in a crisis, and finds and creates new opportunities. |

definitions with the literature and existing definitions of each knowledge, skill, or attitude in existing Air Force doctrine.

Similarly, while there were some competencies that had limited frequency in the Step 1 dataset, such as Fosters Innovation and Resource Management, we felt the literature and the Working Group built a case for their importance in ways that superseded a smaller quantitative result. In those ways, we acknowledge we made decisions about competencies that reflected not just the quantitative numbers but the emphasis of the qualitative research that was the foundation of this research. This is one of the strengths of mixed-methods research, and we want to be explicit about where and how qualitative data informed our decision making. Similarly, while Equitable and Empathy were not largely referenced in the other three datasets, they were such a strong theme in the Ethical Leadership Survey, that we felt the need for those competencies was strong. This, too, is the value of building competencies from multiple datasets; had we not included the voices of Air University students, which ranges in rank from entry-level to senior leaders because of the nature of Air University, we might not have understood the need for those competencies in our Ethical Leader competency selection. Finally, some competencies were not comprehensively measured in the 360-ELS (e.g., only one aspect of the competency was measured), so future iterations of the survey will include additional survey items that seek to measure that competency more comprehensively. For example, questions that

assessed one's ability to be consistent and reliable, especially during difficult situations, were labeled as Resilience. In future iterations of the survey, questions will be added to measure the aspects of resilience that measure self-care practices to prevent burnout and the aspect of positive self-control. The competencies that need additional items added include Resilience, Empathy, Teamwork, Organizational Leadership, and Fosters Innovation.

The next step in this process is to take the analysis from the 360-ELS and explore how respondents scored on the baseline assessment. From those results, we will identify which competencies to focus on for target curriculum development to help develop those competencies for Air University students as well as for current and future Air Force leaders.

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